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DRAFT SITE ASSESSMENT REPORT FOR SITE 5 FORMER AVGAS SYSTEM NAS SAUFLEY FIELD FL
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FEDERAL PROGRAMS SECTION

PHIL-25000

November 16, 2012

Project Number 112G02748

Mr. David Grabka
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 4535
Tallahassee, Florida 32399-2400

Reference: CLEAN Contract No. N62470-08-D-1001
Contract Task Order No. JM26

Subject: Submittal of Draft Site Assessment Report for Site 5
Former AVGAS System, Saufley Field
Pensacola, Florida

Dear Mr. Grabka:

On behalf of the Naval Facilities Engineering Command Southeast (NAVFAC SE), Tetra Tech, Inc. (Tetra Tech) is pleased to submit the enclosed Draft Site Assessment Report for Site 5 – Former AVGAS System, Saufley Field, Pensacola, Florida, for regulatory agency review. As indicated below, copies of this document have also been submitted to Mr. John Schoolfield (NAVFAC SE) and Mr. Greg Campbell (NAS Pensacola).

Please review these documents and return any comments to me. Once all comments are addressed the documents will be re-issued in final form.

If you have any questions, please call me at (901) 523-9500.

Sincerely yours,

Geoff Pope, P.E.
Project Manager

Enclosures: (1 hardcopy, 1 CD)

c: John Schoolfield, NAVFAC SE (1 hardcopy, 1 CD)
Greg Campbell, NASP PWC (1 hardcopy, 1 CD)
John Trepanowski, Tetra Tech (no enclosures)

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DRAFT

# Site Assessment Report
# for
# Site 5 - Former AVGAS System

# for

# Saufley Field
# Pensacola, Florida

## Naval Facilities Engineering Command Southeast

**Contract Number N62470-08-D-1001**
**Contract Task Order JM26**

**November 2012**

TETRA TECH

**DRAFT**

PHIL-24999

# SITE ASSESSMENT REPORT
# for
# SITE 5 – FORMER AVGAS SYSTEM

## SAUFLEY FIELD
## PENSACOLA, FLORIDA

## COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

**Submitted to:**
**Naval Facilities Engineering Command Southeast**
**NAS Jacksonville Building 103**
**Jacksonville, Florida 32212**

**Submitted by:**
**Tetra Tech**
**234 Mall Boulevard, Suite 260**
**King of Prussia, Pennsylvania 19406**

**CONTRACT NO. N62470-08-D-1001**
**CONTRACT TASK ORDER JM26**

**NOVEMBER 2012**


**PREPARED UNDER THE DIRECTION OF:**

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**PROFESSIONAL CERTIFICATION**

Site Assessment Report
for
Site 5 - Former AVGAS System
Saufley Field
Pensacola, Florida

This Site Assessment Report was prepared under the direct supervision of the undersigned geologist using geologic and hydrogeologic principles standard to the profession at the time the report was prepared in general conformance with the Requirements of Chapters 62-770, Chapter 62-777, and 62-780, Florida Administrative Code. If conditions are determined to exist that differ from those described, the undersigned engineer should be notified to evaluate the effects of additional information on the assessment described in this report. This report was developed specifically for the referenced site and should not be construed to apply to any other site.

_____

Frank Lesesne, P.G.
License Number PG-1020

_____

Date

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# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AST | Aboveground storage tanks |
| AVGAS | Aviation gasoline |
| B(a)P | Benzo(a)pyrene |
| bls | Below land surface |
| BTEX | Benzene, toluene, ethylbenzene, and total xylenes |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| CLEAN | Comprehensive Long-term Environmental Action Navy |
| CLP | Contract Laboratory Program |
| CTL | Cleanup target level |
| CTO | Contract Task Order |
| DoD | Department of Defense |
| 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 Organic Method |
| GCTL | Groundwater Cleanup Target Level |
| IDW | Investigative-derived waste |
| JP | Jet propellant |
| MDL | Method Detection Limit |
| mg/kg | Milligrams per kilogram |
| mg/L | Milligrams per liter |
| MTBE | Methyl tert-butyl ether |
| NAS | Naval Air Station |
| NAVFAC SE | Naval Facilities Engineering Command, Southeast |
| NEESA | Naval Energy and Environmental Support Activity |
| NETPDTC | Naval Education and Training Professional Development and Technology Center |
| NTTC | Navy Technical Training Center |
| OVA | Organic vapor analyzer |
| PA | Preliminary assessment |
| PAH | Polynuclear aromatic hydrocarbon |
| ppm | Parts per million |
| PW | Potable well |
| PWC | Public Works Center |
| RAP | Remedial Action Plan |

## ACRONYMS AND ABBREVIATIONS (Continued)

| | |
|---|---|
| SAR | Site Assessment Report |
| SARA | Site Assessment Report Addendum |
| SCTL | Soil Cleanup Target Level |
| SOP | Standard Operating Procedure |
| TCL | Target compound list |
| TEQ | Toxicity equivalency |
| TPH | Total petroleum hydrocarbons |
| TPHCWG | Total petroleum hydrocarbon working group |
| TRPH | Total recoverable petroleum hydrocarbons |
| UCL | Upper Confidence Limit |
| µg/kg | Micrograms per kilogram |
| µg/L | Micrograms per liter |
| USDA | United States Department of Agriculture |
| UST | Underground storage tank |
| USEPA | United States Environmental Protection Agency |
| VOC | Volatile organic compound |

# EXECUTIVE SUMMARY

The purpose of this Site Assessment at Site 5 - Former AVGAS System, is to determine whether there is any unacceptable environmental contamination at the fuel distribution system associated with Site 5. Site 5 consists solely of the aviation gasoline (AVGAS) and jet fuel (JP-4) fuel distribution lines connecting the underground storage tank (UST) farm to the flight line and refueling pits, or bowsers, located along the aircraft parking ramp (tarmac). The data collected for the assessment of Site 5 is being used to evaluate the nature and extent of chemicals detected in soil and groundwater at Site 5, Saufley Field, Pensacola, Florida.

## SITE HISTORY

Saufley Field opened in 1940, commissioned as a Naval Auxiliary Air Station, and was re-designated a Naval Air Station (NAS) in 1968. Saufley Field operated two active runways and has in excess of 34,425 square feet of hangar space. It was decommissioned in 1976 and designated as an outlying landing field and reactivated in 1979 as a Naval Education and Training Program Development Center and as an outlying field for NAS Whiting Field pilot training. Under its current use, all active flight activities have been discontinued. In 1996, Saufley Field became the Naval Education and Training Professional Development and Technology Center (NETPDTC), a major shore command. As the host of Saufley Field, NETPDTC supports 10 major Department of Defense (DoD), as well as Navy, tenants and has a total base population in excess of 1,000.

In 2008, the Navy entered into negotiations to form an Enhanced Use Lease partnership with private industry. The objective of the Enhanced Use Lease program is to transform 104 acres of the property at Saufley Field into a diversified, multi-use business campus through the creative adaptation and reuse of two sites (areas of the base). The first area contained 85.5 acres with 60 buildings (including four hangars) encompassing 622,000 square feet of space and the second area contained 18.7 acres that is currently used as a golf course. The total area also offers potential access to two 4,000 linear foot runways.

## SITE ASSESSMENT

A Preliminary Assessment (PA) Report for Saufley Field was conducted by the Naval Energy and Environmental Support Activity (NEESA) in May 1992 and the report identified the area which is now Site 5.

Site assessments at Saufley Field were initially conducted under, and regulated by, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) guidelines and criteria. Upon

review of the assessment data generated by this study, it was determined the identified contaminants consisted predominantly of petroleum based compounds. As a result, the Florida Department of Environmental Protection (FDEP) was petitioned for transfer of the Site from CERCLA to petroleum assessment/cleanup criteria under Chapter 62-770, Florida Administrative Code (F.A.C.). FDEP agreed via email to this transfer on February 12, 2009.

Previous field investigations have not been conducted at Site 5. Information gathered during this investigation has been used to assess and characterize the nature and extent of the contaminant(s), as well as to better understand site characteristics.

The investigation included the collection of a total of 195 soil samples (including quality control samples) from 132 soil borings throughout the site. Soil samples were collected from two-foot depth intervals down to approximately 20 feet below land surface (bls); with the majority of the samples collected between the surface and 10 feet bls. After collection, the soil samples were sent to an off-site laboratory where they were analyzed for target compound list (TCL) volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and total recoverable petroleum hydrocarbons (TRPH). A total of six groundwater screening samples were collected at a depth of approximately 50 feet bls. After collection, the groundwater samples were sent to an off-site laboratory where they were analyzed for TCL VOCs, PAHs, TRPH, and lead since the contaminants are limited to constituents of AVGAS and JP-4. The site assessment occurred in four separate mobilizations from March 2011 to March 2012. The first mobilization was conducted in March/April 2011, the second mobilization was conducted in July 2011, the third mobilization was conducted in December 2011 and the fourth mobilization was conducted in March 2012.

**NATURE AND EXTENT OF CONTAMINATION**

Although specifics, such as source area, nature of materials, and exact time of release is unknown, the contaminants found are consistent with the historic use of the site. PAHs and/or TRPH were detected at concentrations exceeding their respective Florida Leachability to groundwater criteria or the Residential Direct Exposure Soil Cleanup Target Level (SCTL) in eleven surface soil samples. PAHs and/or TRPH were detected at concentrations exceeding their respective Florida Leachability to groundwater criteria or the Residential direct exposure SCTL in four subsurface soil samples.

Groundwater sampling was conducted in March and April 2011, PAHs, TRPH, and lead were detected at concentrations exceeding their respective Groundwater Cleanup Target Levels (GCTLs) as defined by Chapters 62-550 and 62-777, F.A.C. (hereinafter cleanup target levels [CTLs]).

**CONCLUSIONS**

Exceedances of Florida's Residential and Industrial direct exposure SCTLs and Leachability to groundwater SCTLs by petroleum-related constituents in soil was documented during site assessment activities at Site 5 - Saufley Field, located in Pensacola, Florida. Petroleum-related constituents were determined to not present an adverse impact to groundwater at Site 5. Potential exposure to petroleum-related constituent impacted soil is minimized by the predominant impervious surface cover and depth to groundwater in the study area. The surface cover will also minimize leaching of contaminants from soil impacted by petroleum-related constituents to groundwater.

Based on the findings presented herein, the delineation is considered complete and no further assessment activities are warranted. However, remediation actions are necessary for site closure without restrictions.

# 1.0 INTRODUCTION

Tetra Tech, under contract to the Department of Navy, Naval Facilities Engineering Command, Southeast (NAVFAC SE) has completed this Site Assessment Report (SAR) documenting the site assessment activities at Site 5 - Saufley Field, located near Pensacola, Florida. This SAR was prepared under the Comprehensive Long-term Environmental Action Navy (CLEAN) V Contract Number N62470-08-D-1001, Contract Task Order (CTO) JM26.

The site assessment activities at Saufley Field were conducted under and regulated by the Florida Department of Environmental Protection (FDEP) petroleum assessment/cleanup criteria under Chapter 62-770, Florida Administrative Code (F.A.C.).

## 1.1 PURPOSE AND SCOPE

The purpose of this site assessment at Site 5 is to evaluate petroleum-related constituent contaminants associated with aviation gasoline (AVGAS) and jet fuel (jet propellant [JP]-4) that may be present in soil and groundwater beneath the site. It is also intended to guide the remedy selection toward one which is protective of human health and the environment.

The scope of work for this site assessment was developed in general accordance with the requirements of Chapter 62-770, F.A.C., Chapter 62-550, F.A.C., Chapter 62-777, F.A.C., Chapter 62-785 F.A.C., and Chapter 62-780, F.A.C. The following activities were completed for this investigation.

- Historical research to investigate the presence of underground storage tanks (USTs) and underground piping that may represent a source of contamination or preferential pathway for contaminant migration.

- Advancement of 132 soil borings via direct-push technology (DPT) or hand auger with collection of soil samples for on-site soil vapor screening.

- Collection of a total of 195 surface and subsurface soil samples for fixed-base laboratory analyses of regulated petroleum hydrocarbons.

- Collection of six groundwater screening samples for fixed-base laboratory analyses of regulated petroleum hydrocarbons.

- Management and disposal of investigative-derived waste (IDW) generated during assessment activities.

## 1.2 SITE LOCATION

Saufley Field is located in Escambia County, Florida (Figure 1-1). The facility is situated between Interstate 10 and Perdido Bay, approximately 5 miles northwest of Pensacola, Florida. Saufley Field encompasses 866 acres with the majority of the area occupied by support buildings, four inactive runways, several grass-covered fields, wooded undeveloped land, and a federal prison, located in the southeast portion of the site (Figure 1-2). Site 5 consists of the AVGAS and JP-4 fuel distribution lines connecting a UST farm to the flight line and refueling pits, or bowsers, located along the aircraft parking ramp (tarmac).

## 1.3 SITE DESCRIPTION AND HISTORY

Saufley Field opened in 1940, commissioned as a Naval Auxiliary Air Station, and was re-designated a NAS in 1968. Saufley Field operated two active runways with over 34,425 square feet of hangar space. It was decommissioned in 1976 and designated as an outlying landing field, then reactivated in 1979 as a Naval Education and Training Program Development Center and as an outlying field for NAS Whiting Field pilot training. Presently, under its current use, all active flight activities have been discontinued. In 1996, Saufley Field became the Naval Education and Training Professional Development and Technology Center (NETPDTC), a major shore command. As the host of Saufley Field, NETPDTC supports 11 major Department of Defense (DoD) tenants, including the Navy, , with a total base population in excess of 1,000.

In 2008, the Navy entered into negotiations to form an Enhanced Use Lease partnership with private industry. The objective of the Enhanced Use Lease program is to transform 104 acres of the property at Saufley Field into a diversified, multi-use business campus through the creative adaptation and reuse of two sites (areas of the base). The first area contains 85.5 acres with 60 buildings (including four hangars) encompassing 622,000 square feet of space, and the second area contains 18.7 acres, currently used as a golf course. The total area also offers potential access to two 4,000 linear foot runways.

As discussed in Section 1.2, Site 5 consists solely of the AVGAS and JP-4 fuel distribution lines connecting the UST farm to the flight line and refueling pits, or bowsers, located along the tarmac. The UST farm enclosure consisted of six 25,000-gallon AVGAS USTs and one 15,000-gallon UST containing JP-4. The USTs are currently being investigated separately from the fuel distribution lines as Site 2406. AVGAS and JP-4 were distributed through 4-inch, 8-inch, and 10-inch diameter steel underground lines

connecting the USTs to the flight line bowsers. There were 55 bowsers arrayed in two parallel lines (a south line and a north line) along the tarmac (see Figure 1-3).

In late 1950, lightning ignited a row of refueling pits north of Hangars 807 and 808 causing minor damage to the pits involved. It is not known whether any damage was sustained by the fuel lines. In May 1992, Naval Energy and Environmental Support Activity (NEESA) based in Port Hueneme, California conducted a Preliminary Assessment (PA) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) guidelines and criteria. Based on the findings of the assessment, NEESA completed a "Preliminary Assessment Report, Naval Educational and Training Program Management Support Activity, Saufley Field, Escambia County, Florida." In this document, NEESA made the following general statements or observations regarding Saufley Field facility:

- Between 1942 and 1976, solvents, oils, and fuels were used at Saufley Field to support air operations.
- High-octane AVGAS was used more than any other hazardous material.
- Used solvent and used oil comprised a majority of the generated hazardous waste.
- Solvents used included toluene, carbon tetrachloride, and trichloroethane.
- Exact usage rates of fuels, oils, and solvents at Saufley Field are unknown.
- Fourteen USTs and two aboveground storage tanks (ASTs) were in service from 1942 through 1977.
- Most of the tanks on the base were removed in late 1980.

Observations related specifically to Site 5 are as follows:

- The seven, aerial refueling tanks (subject of UST Site 2406 investigation) were connected by over two miles of 10-inch and 8-inch diameter steel fuel lines to 55 refueling pits (bowsers) located on the aircraft parking ramp (tarmac).

Design drawings prepared in the 1940s detail the gasoline distribution system at Site 5 and include details of the piping, bowsers, and the fuel tank farm. From these drawings, the locations of valve pits, joints, tees, bleeders, and an expansion loop could be identified. Drawings prepared in 1985 (NAVFAC DWG No.'s 5134920 thru 5134925) for the pipeline capping and tank closure at Saufley Field were also located. The design drawings were prepared by the Navy Public Works Center (PWC) design section and show the following:

- The six 25,000-gallon fuel tanks (AVGAS) and the one 15,000 gallon fuel tank (JP-4) were removed and the existing fuel lines were capped and abandoned-in-place at the fuel tank farm.

- The 500-gallon lube oil tanks located under bowsers were removed.
- The pipes were capped at the fuel pipeline valve pits.
- Trenches and service pits were filled and paved with concrete.
- As-built revision dated June 1, 1987 indicates that the contractor performed work in accordance with the design drawings.

E.C. Jordan is believed to have performed the closure action on the bowsers. However, the closure documentation has not been located. A review of the closure design drawings in April 2010 revealed that the fuel lines and bowsers located within the concrete tarmac area had once been located in concrete trenches and pits covered with steel plating. Per the closure design drawings, all bowser pits and fuel line trenches were filled with compacted soil and covered with six inches of concrete, bringing them to grade level.

Closure documentation could not be located in the facility environmental files. Previous environmental investigations involving sampling and analysis of environmental media have not been conducted at Site 5.

## 1.4 SITE ASSESSMENT HISTORY

Previous investigations have not been conducted at Site 5; however, a site assessment was conducted at UST Site 2406, located southwest of Site 5 (see Figure 1-3), in April and May 1996 by Naval Air Station (NAS) Pensacola PWC. A total of 10 monitoring wells (9 shallow and 1 deep) were installed and soil samples were collected from boreholes during the installation of the monitoring wells. NAS Pensacola PWC concluded that excessively contaminated soil (as defined by Chapter 62-770, F.A.C.) existed on site and petroleum constituents were present in the groundwater. The source was not determined, and free-phase product was not present in the shallow water aquifer beneath the site. NAS Pensacola PWC recommended the development of a Remedial Action Plan (RAP) for soil and development of a Monitoring Only Plan to address groundwater contamination.

Tetra Tech subsequently conducted extensive assessment activities, as reported in the Site Assessment Report Addendum (SARA) for UST Site 2406 (Tetra Tech, 2005) following the PWC work, and documented the presence of free-phase product in a deeper portion of the surficial aquifer beneath the site. Based on the SARA recommendations, a RAP for free-phase product recovery was completed in 2006 and the Navy's remedial action contractor initiated RAP implementation.

## 1.5 SUMMARY OF CONTAMINATION

Prior to this investigation, assessment activities had not been conducted at Site 5. Assessment activities at adjacent Site 2406 revealed the presence of petroleum related constituent impacted soil, groundwater, and free-phase petroleum product. Based on the current investigation, which included soil and groundwater sampling, the presence of petroleum related constituent impacted soil and groundwater consistent with past site-related activities was revealed.

# 2.0 INVESTIGATION METHODS

## 2.1 OVERVIEW OF ASSESSMENT ACTIVITIES

Soil and groundwater samples were collected to determine if chemicals used in past operations at Saufley Field are present in soils and groundwater at concentrations that represent a risk to human health or the environment or require remediation per regulatory screening guidelines. Soil and groundwater samples were collected and submitted for off-site laboratory analyses and the analytical results were compared to the appropriate Florida cleanup criteria.

The assessment activities occurred in four separate events. The first sampling event was performed in March/April 2011. During that time, 98 soil borings were advanced (05-SS-001 through 05-SS-098) and six groundwater soil samples were collected from soil borings 05-SS-05, 05-SS-014, 05-SS-039, 05-SS-049, 05-SS-053, and 05-SS-084.

Based on the soil analytical results, additional step-out soil sampling (soil samples 05-SS-099 through 05-SS-111) was conducted in July 2011.

Based on the soil analytical results, a third sampling event was conducted in December 2011. Step-out soil samples (05-SS-112 through 05-SS-121) were collected to determine the extent of contamination in the areas of 05-SS-053, 05-SS-068 and 05-SS-075.

This final soil sampling event was conducted in March 2012. Additional step-out soil samples were collected to determine the extent of contamination in the areas of 05-SS053, 05-SS-068, and 05-SS-075.

Soil and groundwater sampling were conducted in accordance with applicable Tetra Tech and FDEP Standard Operating Procedures (SOPs) listed below:

- The Sampling and Analysis Plan for Site Characterization Study for Groundwater and Subsurface Soil Sampling (Tetra Tech, 2011a).

- FDEP Standard Operating Procedures for Field Activities (FDEP, 2008).

Field methodologies used to evaluate soil and groundwater quality at the site and conclusions and recommendations for the path forward are discussed in the remaining sections of this report.

## 2.2 SOIL METHODOLOGY

Sampling locations represent areas that were determined to be potential locations where fuel or oil may have been introduced to soil or groundwater. Bowsers were selected as sampling locations because they contained oil nozzles and tanks that may have leaked. In addition, fuel or oil may have been spilled at these locations during aircraft refueling or servicing. Valve pits, joints, elbows, and the expansion loop represent locations where welds are typically found. Failure of such welds is a potential cause of leakage. Bleeder valves are also a potential pathway for contaminants to enter soil or groundwater by nature of their function. Finally, a sample for every 100 feet of straight pipe was chosen to account for the potential for additional welded joints located along the run that are not depicted on design drawings. It was assumed that this spacing enabled any potential leak along the run to be detected.

Soil borings were advanced no more than 3 feet from the landmarks (i.e. bowsers, bleeders, valve pits, direction change, joint, and expansion loop) identified for sampling above. After coring surface concrete or pavement, the first 4 feet of each soil investigation location were advanced using a hand auger. A DPT rig completed the borings to total depth. DPT samples were taken using 4-foot acetate sleeves.

The soil borings conducted during the first sampling event were screened to 20 feet below land surface (bls) and soil sample collection depths were based on flame ionization detector (FID) headspace measurements. Subsequent soil samples (three sampling events) were collected based the previous analytical results and on Partnering Team discussions on sample depths and analytes to further refine the extent of petroleum-related constituent contamination.

Additional step-out soil samples were collected if an originally proposed sample location exceeded the project action limit. At boring locations 05-SS-053 and 05-SS-075 step-out samples were collected in cardinal directions from the original sample to further delineate the extent of contamination. At location 05-SS-068 additional step-out samples were collected to further define the limits of excavation. Additional step-out soil samples were also collected to further define the limits of excavation.

A description and rationale behind the selection of the soil boring locations are provided as follows:

- One soil sample at each bowser (55 total samples).
- One soil sample at each valve pit (four total samples).
- One soil sample at each change in pipeline direction not associated with a valve pit (seven total samples).

- One soil sample at each joint between pipes of different diameter (four total samples).

- One sample at the expansion loop (one total sample).

- One sample at each bleeder (two total samples).

- One sample for every 100 feet (approximately) of straight pipe for areas not enclosed in a service trench (17 total samples).

A description and rational behind the selection of soil boring step-out locations is provided as follows:

- Four samples were collected from the 2- to 4-foot bls interval four step-out locations 20 feet in each cardinal direction from boring location 05-SS-053.

- One soil sample was collected from the 0- to 2-foot, 2- to 4-foot, and 4- to 6-foot bls intervals from four step-out locations 10 feet in each cardinal direction from boring location 05-SS-053 (11 total samples). Refusal was met in the 4- to 6-foot bls interval at step-out sample location 05-SS-103, therefore a soil sample could not be collected.

- One soil sample was collected from the 0- to 2-foot bls, 2- to 4-foot, 4- to 6-foot, and 6- to 8-foot bls intervals from four step-out locations 20 feet in each cardinal direction from boring location 05-SS-068 (16 total samples).

- One soil sample was collected from the 4- to 6-foot bls interval from four step-out locations 10 feet in each cardinal direction from boring location 05-SS-068 (Four total samples).

- One soil sample was collected from the 4- to 6-foot bls interval from four step-out locations 5 feet in each cardinal direction from boring location 05-SS-068 (four total samples).

- One soil sample was collected from the 0- to 2-foot, 2- to 4-foot, 4- to 6-foot, and 6- to 8-foot bls intervals from four step-out locations 20 feet in each cardinal direction from boring location 05-SS-075 (16 total samples).

- One soil sample was collected from the 0- to 2-foot and 4- to 6-foot bls intervals from 12 step-out locations located to the west of boring location 05-SS-075 (24 total samples).

The locations of the initial soil boring locations are shown on Figure 2-1. The location of the additional step-out locations for soil boring 05-SS-053 are shown on Figure 2-2. The location of the additional step-out locations for soil boring 05-SS-068 are shown on Figure 2-3. The location of the additional step-out locations for soil boring 05-SS-075 are shown on Figure 2-4.

## 2.3 SOIL GAS HEADSPACE SCREENING

Soil samples were immediately screened for volatile organic vapors by a FID. Screenings were conducted at the 98 initial soil boring locations at 2-foot vertical intervals beginning at 0 feet bls and continuing below the estimated base of the landmark to 10 feet bls. After these five samples had been collected at 2-foot intervals, additional samples were collected at 5-foot intervals until two consecutive clean intervals (corrected FID readings of less than 10 parts per million [ppm]) are sampled, or until the top of the water table was encountered. The step-out soil samples were screened at the designated depth interval prior to sample collection. The FID readings are presented in Table 2-1.

Soil vapor screening analyses were performed for the aforementioned samples in general accordance with the headspace screening method Tetra Tech SOP SA-2.4 (Soil Gas Sampling). The soil vapor screening was conducted by collecting soil from the designated sample interval into two air tight containers, half-filled with soil sample amount. The containers were then sealed and the soil samples were allowed to equilibrate. Each sample was screened with a Photovac™ MicroFID organic vapor analyzer (OVA) by inserting the FID probe and recording the highest response. A granular activated carbon filter probe was then attached to the FID and inserted into the headspace above the second (duplicate) sample to document the presence or absence of naturally occurring organic vapors. Upon completion of the screening exercise, the carbon-filtered result was subtracted from the unfiltered result to obtain a net petroleum hydrocarbon vapor value. This field screening method provides a qualitative evaluation of potential organic constituents in soil. Soil samples for laboratory analysis were collected at the locations where the FID reading indicated a possibility for contamination by volatile organic compounds (VOCs) based on FDEP's screening criteria for excessively contaminated soil in Chapter 62-770, F.A.C. In accordance with the manufacturer's specifications, the FID was field calibrated with 100 ppm methane gases, prior to each day's activities. Calibration logs are provided in Appendix A. Soil boring logs with their respective FID readings are provided and soil sample log sheets summarizing the field screening results are included in Appendix B.

## 2.4 SURFACE SOIL SAMPLING

Approximately 70 percent of the site is covered with concrete; therefore, surface soil samples were rarely collected during the site assessment. Only 25 surface soil samples (not including duplicates) from 25 soil

boring locations (05-SS-053, 05-SS-099 through 05-SS-117, and 05-SS-126 through 05-SS-132) were collected and sent to the fixed-base laboratory.

Surface soil sample 05-SS-053-0002 was analyzed using the United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) Target Compound List (TCL) VOCs of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl tert-butyl ether (MTBE) using USEPA Method SW-846 8260B; PAHs using USEPA SW-846 Method 3510C/3520 and 8270C; and total recoverable petroleum hydrocarbons (TRPH) using the Florida Petroleum Residual Organic (FL-PRO) Method.

Surface soil sample 05-SS-132-0002 was selected for aliphatic and aromatic speciation of Total Petroleum Hydrocarbons (TPHs) using the Total Petroleum Hydrocarbon Working Group (TPHCWG) method. All samples were packed in ice and sent under chain-of-custody protocol to Empirical Laboratories overnight via Federal Express.

## 2.5 SUBSURFACE SOIL SAMPLING

A total of 147 subsurface soil samples from 129 soil borings were collected and sent to the fixed-based laboratory for analyses. Subsurface soil samples were not collected from soil borings 05-SS-53 or 05-SS-099. Subsurface soil samples collected from borings 05-SS-001 through 05-SS-098 (the first mobilization sampling activity) were analyzed using the CLP TCL VOCs BTEX and MTBE using USEPA Method SW-846 8260B; PAHs using USEPA SW-846 Method 3510C/3520 and 8270C; and TRPH using FL-PRO method. Subsurface soil samples collected from borings 05SS-099 through 05SS-131 were analyzed for PAHs or TRPH based on the evaluation of analytical data from the previous sampling events. All samples were packed in ice and sent under chain-of-custody protocol to Empirical Laboratories overnight via Federal Express. Subsurface soil samples 05-SS-132-0002, 05-SS-132-0204 and 05-SS-0406 were selected for aliphatic and aromatic speciation of TPHs using the TPHCWG method. The samples were packed on ice and sent under chain-of-custody protocol to Sun Labs overnight via Federal Express.

## 2.6 GROUNDWATER SCREENING SAMPLING

Groundwater samples collected by DPT were retrieved from stainless steel screen point samplers using low-flow/low stress purging techniques (typically at a rate of less than one liter per minute) with a peristaltic pump and Teflon tubing. When possible, prior to sample collection, water was purged from the screen point until the water is sediment-free or until it is determined the turbidity level is at the lowest value attainable. Groundwater samples were collected using the procedures specified in FDEP SOP FS-2000 and FS-2200.

During the sampling event, groundwater samples were collected from the following six soil boring locations: 05-SS-005, 05-SS-014, 05-SS-039, 05-SS-049, 05-SS-053, and 05-SS-084 (Figure 2-1). The groundwater screening samples collected from borings were analyzed for CLP TCL VOCs (USEPA Method SW-846 8260B), PAHs (USEPA Method SW-846 8270), TRPH (FL-PRO and SW-846 Method 8015m), and lead (USEPA Method SW-846 6010B). A summary of groundwater analytical results are presented in Appendix E. All samples were packed in ice and sent under chain-of-custody protocol to Empirical Laboratories overnight via Federal Express.

## 2.7 SAMPLE HANDLING

Sample handling includes the selection of sample containers, preservatives, allowable holding times, sample packaging, shipping, and appropriate sample chain-of-custody procedures. An outline of the sampling handling items addressed during sampling activities at Site 4 is provided below.

### 2.7.1 Sample Packaging and Shipping

Samples were packaged and shipped under chain-of-custody protocol in general accordance with FDEP SOP 001/01 FS1000 and applicable sections of FS2200 and FS3000.

### 2.7.2 Sample Custody

Custody of samples was maintained and documented at all times. Chain-of-custody began with the collection of the samples in the field. FDEP SOP FS1000 outlines the chain-of-custody procedures followed during sampling activities.

## 2.8 QUALITY CONTROL SAMPLES

Pre- and post-equipment rinsate blanks, and duplicate blanks, were collected during the soil and groundwater sampling events in accordance to FDEP SOP 001/01 FQ1000: Field Quality Control Requirements. One trip blank sample accompanied each cooler containing VOC samples.

## 2.9 EQUIPMENT CALIBRATION

Field instruments were calibrated daily according to FDEP SOP FT1000: General Field Testing and Measurement, and manufacture's specifications. Equipment calibration was documented and copies of the completed Equipment Calibration Log are provided in Appendix A.

## 2.10 DECONTAMINATION

The equipment used in field sampling activities was decontaminated prior to and during sampling activities in accordance to FDEP SOP FC1000.

## 2.11 INVESTIGATIVE-DERIVED WASTE MANAGEMENT

Drill cuttings, purge water, and decontamination water was collected and containerized in Department of Transportation approved (Specification 17C) 55-gallon drums.

# 3.0 SITE CHARACTERIZATION

Data to evaluate site conditions and characteristics were obtained from available literature, as well as previous and current investigations at the Saufley Field facility. Please note that the investigation of Site 5 was limited to soil borings, soil sampling and groundwater sampling.

## 3.1 SURFACE FEATURES

Saufley Field is located in the southeastern portion of Escambia County, Florida, approximately one mile northeast of Perdido Bay. The facility occupies the Coastal Plain Providence of the United States. Terrain surrounding the facility is generally flat, except in stream valleys, sloping gently toward the south. The land surface elevations on Saufley Field range from 75 to 90 feet above mean sea level.

Site 5 consists solely of the AVGAS and JP-4 fuel distribution lines connecting the UST farm to the flight line and refueling pits, or bowsers, located along the aircraft parking ramp (tarmac) as shown in Figure 1-2. Most of the pipeline lies between Sprague Street and the aircraft parking ramp. However, there are connections all the way from Mckinnon Street to Barin Street. The area covers approximately 8,000 linear feet and the site elevation is approximately 80 feet above mean sea level. Most of the site (greater than 80 percent) is paved, the rest is covered by grass and shrubs cover landscape islands and building lawns.

## 3.2 SURFACE WATER HYDROLOGY

Saufley Field is bordered on the southwest by Perdido Bay and to the north by Eleven Mile Creek and Eight Mile Creek. Also, Escambia Bay lies approximately 8 miles to the southeast. Swampy areas exist adjacent to the western and northern portion of Saufley Field. However, sandy surface soil in the majority of the area at Saufley Field allows for a high portion of rainfall to infiltrate into the ground, resulting in relatively few streams. The land surface at Site 5 is predominantly paved (concrete and asphalt). The land surface topography at Saufley Field has little dissection and the natural drainage system is poorly developed. Much of the surface drainage has been constructed or modified to accommodate structures on base. Base run-off makes its way to Perdido Bay via a man-made drainage ditch.

There are two perennial streams located within the bounds of Saufley Field. Eight Mile Creek merges with Eleven Mile Creek in the northwestern portion of the installation. Several small (less than five acres) freshwater impoundments, associated with the aforementioned stream system, exist in the northwest portion of the installation.

Site 5 is located within the central portion of the facility and consists mostly of the concrete covered warm-up ramp. Therefore, surface water features are not present at the site and overland runoff is to the west towards Perdido River and Perdido Bay.

## 3.3 GEOLOGY

The surficial geology of the area consists of Pleistocene marine deposits made up of light brown to tan, fine quartz sand with associated stringers and lenses of gravel and clay. Underlying these deposits, increasing with age, are the Citronelle Formation, the Miocene Coarse Clastics, the Pensacola Clay, the Tampa Formation, the Chickasawhay Limestone, the Bucatunna Clay member of the Byram Formation, the Ocala Group, the Lisbon equivalent, the Tallahatta Formation, and the Hatchetigbee Formation. The Pleistocene deposits and Citronelle formation are often impossible to differentiate, and together range in thickness from approximately 30 feet to 800 feet across the county (NEESA, 1983).

Lithology observed during drilling of Site 4 monitoring wells is typical of the undifferentiated Pleistocene marine deposits. Surficial sediments consist of brownish silty sand underlain by silty sand with varying clay content. This horizon typically has a “mottled” appearance with predominantly lighter tan to yellow colored material with darker laminae interspersed throughout. Below the second layer, the lithology was variable depending on location. Subsequent layers were similar to those already penetrated or some combination of the two. Significant clay or gravel horizons were not encountered (Tetra Tech, 2007).

## 3.4 SOIL

Soil at Saufley Field is mostly of the Bonifay Series, which consists of very deep, well drained soils formed in sandy and loamy marine sediments (USDA, 2004). These types of soil occur on the summits, shoulder slopes, and side slopes in uplands. The soil mapping unit at Site 4 is the Bonifay Loamy Sand with 0 to 5 percent slopes and occurring from 0- to 80-inches in undisturbed areas. Slopes are long and smooth. Typically the surface layer is loamy dark brown sand about three inches thick. The substratum is yellow to reddish brown silty clayey sand with varying amounts of each at a maximum thickness of 80 inches (USDA, 2004).

Lithology observed during drilling of Site 5 soil borings to a depth of 40 feet bls is typical of the undifferentiated Pleistocene marine deposits. Surficial sediments consist of brownish silty sand underlain by silty sand with varying clay content. This horizon typically has a “mottled” appearance with predominantly lighter tan to yellow colored material with darker laminae interspersed throughout. Below the second layer, the lithology was variable depending on location. Subsequent layers were similar to

those already penetrated or some combination of the two. Significant clay or gravel horizons were not encountered. Additional details can be found in the soil boring logs included in Appendix B.

## 3.5 GROUNDWATER HYDROLOGY

Groundwater in Escambia County occurs in three major aquifers: a shallow surficial aquifer, which is artesian and non-artesian (the sand and gravel aquifer), and two deep artesian aquifers (the upper and lower limestones of the Floridan aquifer). Because the shallow surficial aquifer is partly unconfined and recharged principally by direct infiltration of rain, this aquifer is particularly susceptible to contamination from surface sources (Musgrove et al., 1965).

### 3.5.1 Regional Hydrology

In the southern half of Escambia County, the sand and gravel aquifer and the upper limestone of the Floridan aquifer are separated by a thick section of relatively impermeable clay; but in the northern half, the sand and gravel aquifer and the upper limestone of the Floridan aquifer are in contact with one another. The upper limestone of the Floridan aquifer is separated from the lower limestone by a thick clay bed (Musgrove et al., 1965).

The sand and gravel aquifer is composed of sand with numerous lenses and layers of clay and gravel. The formation also contains lenses of hardpan where the sand has been cemented by iron oxide minerals. This aquifer lies at the surface throughout Escambia County. Borings logs from various locations throughout Saufley Field document that the surficial sands extend from ground surface to a depth of at least 129 feet mean sea level, below which is 15-feet thick marine clay, the continuity of which is uncertain. Underlying the clay is more sand with numerous clay lenses (Geraghty and Miller, 1986).

Water levels in the shallow aquifer range from 27 feet (near the southeastern perimeter of the facility) to approximately 50 feet bls near the western edge of Site 5. The groundwater flow has historically been toward the Gulf of Mexico and Escambia and Perdido Rivers; however, groundwater flow can vary locally due to the effect of topography or surface water bodies. Also, the aquifer recharge is predominantly from local precipitation (Trapp, 1973).

The shallow saturated permeable beds in the sand and gravel aquifer contain groundwater under non-artesian conditions, while the deeper permeable beds contain groundwater under artesian pressure, where they are confined by lenses of clay and sandy clay (NEESA, 1983).

Below the sand and gravel aquifer, the limestone layers comprise the regionally extensive Floridan aquifer, which in this area is divided into upper and lower units separated by the Bucatunna clay. The

upper Floridan aquifer is an important source of water in areas east of Escambia County; however, in the Pensacola area it is highly mineralized and not used as a water supply. The lower Floridan aquifer is also highly mineralized and is designated for use as an injection zone (Geraghty and Miller, 1986).

### 3.5.2 Site Specific Hydrology

Hydrogeologic data were not collected at Site 5. Groundwater screening samples were collected during the investigation, and following the Sampling and Analysis Plan (Tetra Tech, 2011a), monitoring wells were not installed. However, to evaluate movement of groundwater in the shallow surficial aquifer at Site 5, nearby UST Site 2406 data was used as an estimate (see Appendix C). Depth to groundwater (Table 3-1) and groundwater elevation were used to determine the site specific groundwater flow direction and water table gradient. Groundwater flow velocity at the site was estimated using the hydraulic conductivity values reported from the field investigation at UST Site 2406, which is located to the south of the western portion of Site 5 on the south side of Sprague Street (Tetra Tech, 2003).

#### 3.5.2.1 Groundwater Flow Direction

The groundwater elevations measured in 2011 from the shallow and deep monitoring wells at Site 4 were plotted on site maps (Figure 3-1 and Figure 3-2) to evaluate the groundwater flow direction for both aquifer zones across Site 5. Groundwater elevation isocontours were drawn from the plotted data. Groundwater flow direction is predicted to be perpendicular to the elevation isocontours. Interpretation of data from the site gauging events indicates that groundwater flow in both the shallow screened groundwater interval (40- to 75-feet bls) as well as the deep screened groundwater interval (75- to 130-feet bls) is generally toward the northwest.

#### 3.5.2.2 Water Table Gradient

The average horizontal groundwater gradient across the nearby site was calculated from the groundwater elevations measured in shallow monitoring wells and the estimated groundwater flow direction. The groundwater flow gradient was determined using the following equation:

$$l = \frac{h_1 - h_2}{d}$$

where:

$I$ = the hydraulic gradient.

$h_1$ = the water elevation at point 1, the highest value.

$h_2$ = the water elevation at point 2, the lowest value.

$d$ = the horizontal distance between point 1 and point 2 parallel to the direction of groundwater flow.

The highest and lowest groundwater elevation values measured in the water table monitoring wells from the nearby Site 4 were used to determine the difference in groundwater elevation across the site. The horizontal distance between the high and low groundwater elevation points was measured parallel to the estimated groundwater flow direction.

For example, on January 9, 2007, the highest measured elevation in shallow monitoring well OLFS4-MW23S was 64.63 feet and the lowest measured elevation at monitoring well OLFS4-MW27S was 34.16 feet. The horizontal distance between these two monitoring wells is approximately 3,713 feet. These data result in the hydraulic gradient of 0.0082 feet per foot for shallow wells. Table 3-2 shows groundwater elevations, the horizontal distance between monitoring wells and the hydraulic gradient for deep and shallow monitoring wells.

**TABLE 3-2**

**AVERAGE HYDRAULIC GRADIENT**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| WELL PAIRS | TOTAL HORIZONTAL DISTANCE (feet) | GROUNDWATER ELEVATION (feet) | DATE MEASURED 1/9/2007 | DATE MEASURED 6/11/2007 | DATE MEASURED 6/10/2010 | DATE MEASURED 4/11/2011 |
|---|---|---|---|---|---|---|
| OLFS4-MW01D2 | | 32.66 | | | | |
| OLFS4-MW29D | 2073.1 | 39.60 | | | | |
| **HYDRAULIC GRADIENT (feet per foot)** | | | **0.003** | - | - | - |
| OLFS4-MW23S | | 64.63 | | | | |
| OLFS4-MW27S | 3713 | 34.16 | | | | |
| **HYDRAULIC GRADIENT (feet per foot)** | | | **0.008** | - | - | - |
| OLFS4-MW01D2 | | 30.97 | | | | |
| OLFS4-MW26D | 1845 | 37.72 | | | | |
| **HYDRAULIC GRADIENT (feet per foot)** | | | | **0.004** | **-** | **-** |
| OLFS4-MW23S | | 63.07 | | | | |
| OLFS4-MW37S | 3725 | 31.68 | | | | |
| **HYDRAULIC GRADIENT (feet per foot)** | | | | **0.008** | **-** | **-** |
| OLFS4-MW26D | | 35.96 | | | | |
| OLFS4-MW01D2 | 1875 | 43.79 | | | | |
| **HYDRAULIC GRADIENT (feet per foot)** | | | | | **0.004** | |
| OLFS4-MW06S | | 41.17 | | | | |
| OLFS4-MW35S | 1875 | 60.97 | | | | |
| **HYDRAULIC GRADIENT (feet per foot)** | | | | | **0.011** | |
| OLFS4-MW01D2 | | 33.63 | | | | |
| OLFS4-MW26D | 1845 | 42.39 | | | | |
| **HYDRAULIC GRADIENT (feet per foot)** | | | | | | **0.005** |
| OLFS4-MW46S | | 35.90 | | | | |
| OLFS4-MW37S | 1450 | 56.97 | | | | |
| **HYDRAULIC GRADIENT (feet per foot)** | | | | | | **0.015** |

#### 3.5.2.3 Vertical Gradient

Site 5 investigation did not include the installation of monitoring wells or groundwater monitoring information beyond the groundwater screening samples. However, the vertical groundwater gradient was calculated from the groundwater elevations measured in the shallow and deep monitoring well pairs installed at the neighboring Site 4. The vertical gradient is determined from the difference in groundwater elevation in the adjacent shallow and deep monitoring wells and the vertical separation of the screened intervals of the monitoring wells completed in close proximity to each other.

Four well pairs, each consisting of one deep and one shallow well, were selected for use in vertical gradient calculations at Site 4. Well pairs used in the study include OLFS4-MW02S/OLFS4-MW02D, OLFS4-MW09S/OLFS4-MW04D, OLFS4-MW282S/OLFS4-MW26D, and OLFS4-MW32S/OLFS4-MW29D.

Vertical gradient calculations (negative values) indicate a downward vertical gradient at all monitoring well pairs (Table 3-3). Also included in the table are the monitoring well screen and depth specifications, depth to groundwater, and groundwater elevation used in the vertical gradient calculations. Downward gradients are typically found in aquifer recharge areas. This would be expected at Site 5, which is located mostly on a topographic high.

#### 3.5.2.4 Hydraulic Conductivity

Hydraulic conductivity values were not determined specifically for Site 5, because groundwater monitoring wells were not installed, as per the Sampling and Analysis Plan (Tetra Tech, 2011a). Instead values and data obtained from the site assessment of UST Site 2406 are presented below (Tetra Tech, 2003). UST Site 2406 is located south of the western portion Site 4 and Site 5. The slug test results are summarized in Table 3-4 and additional information, such as the slug test data records, analytical plots, and figures are included in Appendix D. The geometric mean of the hydraulic conductivity values for the shallow wells at the site is approximately 10.08 feet per day or 0.007 feet per minute. The hydraulic conductivity values for the deep well at the site range from 0.102 to 0.1141 feet per minute.

**TABLE 3-4**

**SLUG TEST RESULTS FOR UST SITE 2406**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Well Designation | Screen Length (feet) | Screened Interval (feet) | Water Column (feet) | Calculated Hydraulic Conductivities (feet/min) | | |
|---|---|---|---|---|---|---|
| OLFS-2406-DMW30 | 5 | 74.5-79.5 | 41.92 | 0.01778 | 0.01635 | 0.01694 |
| OLFS-2406-DMW31 | 5 | 74.5-79.5 | 50.93 | 0.003234 | 0.003258 | 0.003001 |
| OLFS-2406-DMW32 | 5 | 130-135 | 110.8 | 0.102 | 0.1141 | 0.1032 |

NOTES:
Feet/min = feet per minute
Source: Site Assessment Report Addendum for UST Site 2406 (Tetra Tech, 2005).

#### 3.5.2.5 Groundwater Flow Velocity

Potential movement of groundwater by natural flow in the saturated zone can be estimated by Darcy's Law, which may be expressed as:

$$V = \frac{K \times l}{\eta}$$

where:

$V$ = average velocity

$K$ = hydraulic conductivity

$\eta$ = effective porosity

$I$ = average hydraulic gradient

Data from soil borings advanced during the site assessment indicate that fine grained sand and silty or clayey sand is the typical lithology at the site. Review of field data suggests that a representative effective porosity for this lithology is approximately 20 percent.

Using an average hydraulic conductivity of 10 feet per day, an average hydraulic gradient of 0.007 feet per foot (average of horizontal hydraulic gradient values in Table 3-3), and an effective porosity value of 20 percent, the estimated average groundwater velocity for the water table zone at Site 4 was calculated at 0.036 feet per day or about 13 feet per year.

#### 3.5.2.6 Potable Water Supply Wells

In 1994, the PWC potable water treatment system at Saufley Field included two active potable water supply (PW) wells. On May 9, 1994, a water sample from PW04 effluent indicated benzene concentrations of 0.032 milligrams per liter (mg/L), exceeding its Florida drinking water standard of 0.001 mg/L per Chapter 62-550, F.A.C. PW04 was taken off-line and was subsequently placed on quarterly sampling for one year for observation and corrective action to remove the contamination. In April 1996, potable water wells PW03 and PW04 were abandoned in-place. Currently the only source of potable water for Saufley Field is a well field located at the Naval Technical Training Center (NTTC) Corry Station, located approximately 5.5 miles south of the installation.

A potable well survey was conducted using the Florida Department of Health Petroleum Surveillance Program (SUPER Act) database. The survey identified 12 potable wells within a one mile radius (Figure 3-3).

# 4.0 RESULTS OF INVESTIGATION

The analytical results for organic chemical compounds and inorganic analytes detected in soil samples were compared to soil cleanup target levels (SCTLs) established by Florida regulations per Chapter 62-777, F.A.C. and for groundwater samples they were compared to cleanup target levels (CTLs) as established by Florida regulations per Chapter 62-550, F.A.C., Chapter 62-777, F.A.C. and Chapter 62-785, F.A.C.. Analytical summary tables and contaminant concentration maps are presented below. Validation reports for the laboratory analytical results are included in Appendix E.

## 4.1 CONTAMINANT SOURCES

According to historical uses, visual observations and the results from the soil and groundwater samples gathered, the release of petroleum-related constituents at Site 5 appears to be the result of fuel spills (AVGAS or JP-4), leaks from solvents or petroleum related substances, and/or routine maintenance activities.

## 4.2 SURFACE AND SUBSURFACE SOILS AND VADOSE ZONE SOIL

To evaluate the nature and extent of petroleum-related constituents at Site 5, the surface and subsurface soil analytical results were compared to the Florida Residential and Industrial direct exposure SCTLs and Leachability to groundwater SCTLs established in Chapter 62-777, F.A.C. for TCL VOCs, TCL PAHs, and TRPH. The soil sample analytical results in Table 4-1 provide a comparison of the analytical results to the lowest of the values for Residential direct exposure or Leachability to groundwater. Exceedance of the lowest of the SCTLs in Table 4-1 triggered a review of the data to Residential and Industrial direct exposure and Leachability to groundwater SCTLs.

During the first sampling event (March and April 2011) at Site 5, soil samples were collected based on field FID headspace from the 0- to 2-foot depth interval, 2- to 4-foot depth interval, 4- to 6-foot interval and 15- to 20-foot depth interval and analyzed for TCL VOCs, TCL PAHs, and TRPH. VOCs were not detected in the March and April 2011 surface soil samples, therefore their analysis was not requested for the second, third and fourth sampling events.

During the second sampling event (July 2011) at Site 5, soil samples were collected based the previous analytical results and on Partnering Team discussions on sample depths and analytes to further refine the extent of petroleum-related constituent contamination. The samples were collected from the 0- to 2-foot depth interval, 2- to 4-foot depth interval, 4- to 6-foot interval and 6- to 8-foot depth interval and analyzed for TCL PAHs and/or TRPH.

During the third sampling event (December 2011) at Site 5, the soil samples were also collected based the previous analytical results and on Partnering Team discussions on sample depths and analytes to continue the refinement of the extent of petroleum-related constituent contamination. The samples were collected from the 0- to 2-foot depth interval and 4- to 6-foot depth interval, and analyzed for TCL PAHs.

During the fourth sampling event (March 2012) at Site 5, the soil samples were also collected based the previous analytical results and on Partnering Team discussions on sample depths and analytes to continue the refinement of the extent of petroleum-related constituent contamination. The samples were collected from the 0- to 2-foot depth interval and 4- to 6-foot depth interval, and analyzed for TCL PAHs and TRPH.

The locations of the initial soil samples with exceedances (March and April 2011 Data) of SCTLs is provided in Figure 4-1. Step out soil boring samples with exceedances of SCTLs from the other sampling events (July and December 2011, and March 2012) are summarized on Figures 4-2, 4-3, and 4-4. These sampling areas will be referred to later as Contamination Area 1, 2, and 3, respectively. Soil analytical laboratory data reports are provided in Appendix E.

### 4.2.1 Surface Soil

March and April 2011 Sampling Event

Only one surface soil sample, 05-SS-053-0002, from the 0- to 2-foot depth interval contained PAHs (1-methylnaphthalene, 2-methylnaphthalene, and naphthalene), but were at concentrations below their respective SCTLs. The sample also contained TPH at a concentration of 694 milligrams per kilogram (mg/kg), exceeding its Florida Residential direct exposure SCTL of 460 mg/kg and the Leachability to groundwater SCTL of 340 mg/kg.

July 2011 Sampling Event

Thirteen surface soil samples (05-SS-99-0002 through 05-SS-111-0002) were collected from 13 soil boring locations (05-SO-99 through 05-SO-111) during the second sampling event in July 2011. Surface soil samples 05-SS-099-0002 through 05-SS-103-0002 were analyzed for TRPH and surface soil samples 05-SS-103-0002 through 05-SS-111-0002 were analyzed for PAHs.

The five surface soil samples (05-SS-099-0002 through 05-SS-103-0002) analyzed for TRPH had detectable TRPH concentrations that ranged from 15.8 J to 1,970 mg/kg. However, only one surface soil sample, 05-SS-099-0002, contained TRPH at a concentration (1,970 mg/kg) that exceeded its Residential direct exposure SCTL of 460 mg/kg and Leachability to groundwater SCTL of 340 mg/kg.

Various PAHs were detected in surface soil samples 05-SS-103-0002 through 05-SS-111-0002. However, only benzo(a)pyrene was detected at 195 micrograms per kilogram (µg/kg) in surface soil sample 05-SS-111-0002 at a concentration that exceeded its Residential direct exposure SCTL of 100 micrograms per kilogram (µg/kg). The carcinogenic PAHs (benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene) had a benzo(a)pyrene toxicity equivalency (B[a]P toxicity equivalency [TEQ]) of 298 µg/kg which exceeds the residential direct exposure of SCTL of 100 µg/kg.

December 2011 Sampling Event

In December 2011, six surface soil samples (05-SS-112-0002 through 05-SS-117-0002) were collected from soil borings 05-SB-112 through 05-SB-117 and analyzed only for PAHs. Various PAHs were detected in each of the six surface soil samples.

Surface soil samples 05-SS-114-0002 and 05-SS-117-0002 contained benzo(a)anthracene and benzo(b)fluoranthene at concentrations that exceeded their respective Leachability to groundwater criteria of 800 µg/kg, and 2,400 µg/kg. Surface soil sample 05-SS-117-0002 contained dibenzo(a,h)anthracene at a concentration that exceeded its Leachability to groundwater SCTL of 700 µg/kg.

Benzo(a)pyrene was detected in soil samples 05-SS-112-0002 and 05-SS-115-0002 at concentrations that exceed its Residential direct exposure SCTL of 100 µg/kg. Benzo(a)pyrene was detected in soil samples 05-SS-114-0002 and 05-SS-117-0002 at concentrations that exceed its Industrial direct exposure SCTL of 700 µg/kg.

Surface soil samples 05-SS-113-0002 and 05-SS-115-0002 contained carcinogenic PAHs at concentrations that exceed their Residential direct exposure B(a)P TEQ. Surface soil samples 05-SS-112-0002, 05-SS-114-0002 and 05-SS-117-0002 contained carcinogenic PAHs at concentrations that exceed their Industrial direct exposure B(a)P TEQ.

March 2012 Sampling Event

During the fourth and final sample event for the site assessment at Site 5, six surface soil samples (05-SS-126-0002 through 05-SS-131-0002) were collected and analyzed for PAHs and TRPH. One surface soil sample 05-SS-132-002 was selected for TPH speciation.

Various PAHs were detected in each surface soil sample. However, only benzo(a)pyrene was detected in soil samples 05-SS-128-0002, 05-SS-130-0002 and 05-SS-131-0002 at concentrations that exceed its Residential direct exposure SCTL.

Surface soil samples 05-SS-130-0002 and 05-SS-131-0002 contained carcinogenic PAHs at concentrations that exceed their Residential direct exposure B(a)P TEQ. Surface soil sample 05-SS-128-0002 contained carcinogenic PAHs at concentrations that exceed their Industrial direct exposure B(a)P TEQ.

TRPH was detected in four of the surface soil samples (05-SS-128-0002, 05-SS-129-0002, 05-SS-130-0002, and 05-SS-131-0002). However, only surface soil sample 05-SS-131-0002 contained TRPH at a concentration that exceeded its Leachability to groundwater SCTL.

The various carbon chain series that were detected in the TPH speciation for soil sample 05-SS-132-002 were at concentrations below their Residential and Leachability to groundwater SCTLs.

### 4.2.2 Subsurface Soil

March and April 2011 Sampling Event

Various PAHs were detected in subsurface soil samples. However, only, benzo(a)pyrene was detected at concentrations that exceed its Florida residential direct exposure SCTL of 100 µg/kg in subsurface soil samples, 05-SS-068-0204 and 05-SS-075-0204 from the 4- to 6-foot bls depth interval.

Subsurface soil samples 05-SS-068-0204, 05-SS-075-0204 and 05-SS-088-0204 from the 4- to 6-foot bls depth interval contained carcinogenic PAHs at concentrations that exceed their Residential direct exposure B(a)P TEQ.

TRPH was detected in 17 subsurface soil samples eight from the 2- to 4-foot bls depth interval, seven from the 4- to 6-foot bls depth interval and two from the 15- to 20-foot bls depth interval) at concentrations below its Leachability to Groundwater SCTL of 340 mg/kg and Residential direct exposure SCTL of 460 mg/kg.

July 2011 Sampling Event

Based on analytical results for the step-out subsurface soil samples collected during the July 2011 sampling event, PAHs and TRPH were detected at concentrations below their respective SCTLs.

December 2011 Sampling Event

Based on the analytical results from the July 2011 sampling event, additional step-out soil samples were collected in December 2011 and analyzed for PAHs. Various PAHs were detected in the subsurface step-out soil sample. However, only benzo(a)pyrene was detected in subsurface soil sample 05-SS-117-0406 from the 4- to 6-foot bls depth interval at a concentration that exceeded its Residential direct exposure SCTL, and the detected carcinogenic PAH concentrations also exceeded their Residential direct exposure B(a)P TEQ.

March 2012 Sampling Event

Based on the analytical results from the December 2011 sampling event, additional step-out soil samples were collected in March 2012 and analyzed for PAHs and TRPH. Various PAHs were detected in the subsurface soils samples, but were at concentrations below their respective SCTLs. TRPH was detected in three subsurface soil samples (05-SS-122-4-6, 05-SS-124-4-6, 05-SS-131-4-6) at concentrations below its Leachability to Groundwater SCTL of 340 mg/kg and Residential direct exposure SCTL of 460 mg/kg.

Two subsurface soil samples (05-SS-132-0204 and 05-SS-132-0406) were selected for TPH speciation. The C5-C7 aromatics, C6-C8 aliphatics and the C7-C8 aromatics in subsurface soil sample 05-SS-132-0204 from the 2 to 4 foot bls interval exceeded their Leachability to groundwater SCTLs.

## 4.3 GROUNDWATER

Six DPT screening point groundwater samples and one duplicate sample were collected in April 2011 from soil boring locations selected during the initial phase of the assessment. Groundwater laboratory analytical results are included in Appendix E.

The groundwater samples collected during the site assessment were analyzed for TCL lead, VOCs, PAHs, and TRPH. Groundwater analytical results were compared to Florida CTLs established in Chapter 62-550, F.A.C. and Chapter 62-777 F.A.C. and the background concentrations for metals. DPT groundwater sample locations that contained target analytes at concentrations exceeding their Florida CTLs are summarized on Figure 4-5 and the analytical results are presented in Table 4-2. The analytical results are summarized below.

### 4.3.1 Volatile Organics

Five VOCs, chloroform (1 sample), ethylbenzene (two samples), tetrachloroethene (one sample), toluene (five samples and duplicate) and total xylenes (two samples and duplicate), were detected in the groundwater samples collected at Site 5 at concentrations below their respective CTLs.

### 4.3.2 TRPH

TRPH was detected in one groundwater sample collected in boring location 05-MW-005; the detected concentration did not exceed its CTL.

### 4.3.3 PAH

With the exception of the groundwater sample collected from soil boring 05-SS-049, fourteen PAHs were detected in the groundwater samples collected at Site 5. Ten of the PAHs (1-methylnaphthalene, 2-methylnaphthalene, anthracene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, naphthalene, phenanthrene, and pyrene) were compared to their Florida CTLs, and the detected concentrations were less than their CTLs.

However, because the laboratory detection limits are higher than their CTLs for benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene and indeno(1,2,3-CD)pyrene an alternate CTL had to be selected. The CTLs for the PAHs are: benzo(a)anthracene at 0.05 micrograms per liter (µg/l), benzo(b)fluoranthene at 0.05 µg/l, dibenzo(a,h)anthracene at 0.005 µg/l, and indeno(1,2,3-CD)pyrene at 0.05 µg/l. Therefore, as per the Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), Groundwater and Soil Sampling, Saufley Field, Site 5 (Tetra Tech, 2010, and FDEP's Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits (FDEP, 2004), the Project Team agreed to replace the CTLs with the laboratory's limit of quantitation for decision making purposes. The limit of quantitation for each of these compounds was 0.2 µg/L (Table 4-2 and Figure 4-5). Below is a comparison of the detected concentrations to the limit of quantitation for each of the four PAHs.

- Benzo(a)pyrene was detected in the groundwater samples collected from screening points 05-MW-014, 05-MW-039, and 05-MW-053 at concentrations above the limit of quantitation.

- Benzo(b)fluoranthene was detected in the groundwater sample collected from screening point 05-MW-053 at a concentration less than the limit of quantitation.

- Dibenzo(a,h)anthracene was detected in the groundwater samples collected from screening points 05-MW-014 and 05-MW-053 at concentrations less than the limit of quantitation.

- Indeno(1,2,3-CD)pyrene was detected in the groundwater sample collected from screening point 05-MW-053 at a concentration less than the limit of quantitation..

#### 4.3.4 Lead

The six Site 5 groundwater samples each contained lead at concentrations exceeding its Florida CTL.

# 5.0 SUMMARY AND RECOMMENDATIONS

The purpose of this site assessment is to provide data to evaluate the current environmental conditions and guide the remedy selection for petroleum based contaminants present at Site 5. In order to achieve this objective, samples from surface soils, subsurface soils and groundwater were collected and analyzed to characterize site conditions and evaluate the extent of petroleum-related constituent contamination at the site.

## 5.1 SOIL ASSESSMENT

The release of petroleum-related constituents at Site 5 may have resulted from routine aircraft maintenance activities, storage of materials used, and refueling activities (NEESA, 1992). The source and nature of materials that contained petroleum-related constituents, as well as the time of disposal, are undocumented or not available. Surface and subsurface soil samples collected at Site 5 were analyzed for VOCs, PAHs, and TRPH. The analytical data was evaluated against SCTLs per Chapter 62-777, F.A.C. VOCs were not detected in the surface or subsurface soil samples collected at Site 5. Below is a summary of the PAH and TRPH analytes detected in the surface and subsurface soil samples.

### 5.1.1 Surface Soil

Benzo(a)anthracene and benzo(g,h,i)perylene were detected at concentrations that exceed their respective Leachability to groundwater criteria at surface soil sample locations 05-SS-114 and 05-SS-117.

Dibenzo(a,h)anthracene exceeded its Leachability to groundwater criteria at soil sample location 05-SS-117.

Benzo(a)pyrene exceeded its Residential direct exposure SCTL at surface soil sample locations 05-SS-111, 05-SS-112, 05-SS-115, 05-SS-128, 05-SS-130 and 05-SS-131.

Benzo(a)pyrene exceeded its Industrial direct exposure SCTL at surface soil sample 05-SS-114 and 05-SS-117.

Carcinogenic PAHs (benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene and indeno(1,2,3-cd)pyrene) exceeded the Residential direct exposure B(a)P TEQ SCTL at surface soil sample locations 05-SS-111, 05-SS-113, 05-SS-115, 05-SS-130, and 05-SS-131.

Carcinogenic PAHs exceeded the Industrial direct exposure B(a)P TEQ SCTL at surface soil sample locations 05-SS-112, 05-SS-114, 05-SS-117, and 05-SS-128.

TRPH exceeded its Residential direct exposure SCTL in surface soil samples 05-SS-053 and 05-SS-099.

TRPH exceeded its leachability to groundwater SCTL in surface soil samples 05-SS-053, 05-SS-099, and 05-SS-131.

The TPH speciation surface soil sample 05-SS-132, contained the C5-C7 aromatics at concentrations exceeding the Leachability to groundwater SCTL.

### 5.1.2 Subsurface Soil

Benzo(a)pyrene exceeded its Residential direct exposure SCTL at subsurface soil sample locations 05-SS-068, 05-SS-075, and 05-SS-117 collected from the 4- to 6-foot bls interval.

Carcinogenic PAHs exceeded the Residential direct exposure B(a)P TEQ at subsurface soil sample locations 05-SS-068, 05-SS-075, 05-SS-088 and 05-SS-117 collected from the 4 to 6 foot bls interval.

TRPH concentrations detected in subsurface soil samples did not exceed Residential direct exposure or Leachability to groundwater SCTLs.

TPH subsurface speciation sample 05-SS-132 collected from the 2 to 4 foot bls interval contained C5-C7 aromatics, C6-C8 aliphatics, and the C7-C8 aromatics at concentrations that exceed their respective Leachability to groundwater SCTLs. Leachability to groundwater criteria was not exceeded in the 4- to 6-foot bls interval.

## 5.2 GROUNDWATER ASSESSMENT

Groundwater screening samples were collected during the Site 5 investigation, and following the Sampling and Analysis Plan (Tetra Tech, 2011a), monitoring wells were not installed. Groundwater screening sampling was conducted during the first mobilization event at Site 5. Analytical data from this event were evaluated against Florida CTLs pre Chapter 62-550, F.A.C., Chapter 62-777, F.A.C. and Chapter 62-785, F.A.C. Groundwater samples collected at Site 5 were analyzed for VOCs, TRPH, PAHs, and lead. Below is a summary of the VOCs, PAHs, TRPH and lead analytes detected in the groundwater screening samples.

Five VOCs (chloroform, ethylbenzene, tetrachloroethene, toluene and total xylenes) were detected in the Site 5 groundwater samples at concentrations below their CTLS.

With the exception of the groundwater sample collected from soil boring 05-SS-049, various PAHs were detected in the groundwater samples collected at Site. 1-Methylnaphthalene, 2-methylnaphthalene, anthracene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, naphthalene, phenanthrene, and pyrene) were detected at concentrations less than their CTLs.

Also, the PAHs benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene and indeno(1,2,3-CD)pyrene have detection limits higher than their CTLs, therefore, in accordance with the sampling plan the Project Team agreed to replace the CTLs with the laboratory's LOQ (surrogate Florida CTL) for decision making purposes. The LOQ for each of these compounds was 0.2 µg/l. Below is a comparison of the detected concentrations to the limit of quantitation for each of the four PAHs.

- Benzo(a)pyrene was detected in the groundwater samples collected from screening points 05-MW-014, 05-MW-039, and 05-MW-053 at concentrations above the LOQ. However, based on FDEP's rounding memo (FDEP, 2011), the detected concentrations would round down to 0.2 µg/L which meets the surrogate Florida CTL.

- Benzo(b)fluoranthene was detected in the groundwater sample collected from screening point 05-MW-053 at a concentration less than the LOQ.

- Dibenzo(a,h)anthracene was detected in the groundwater samples collected from screening points 05-MW-014 and 05-MW-053 at concentrations less than the LOQ.

- Indeno(1,2,3-cd)pyrene was detected in the groundwater sample collected from screening point 05-MW-053 at a concentration less than the LOQ.

It is noted that the CTL as developed above is a site-specific determination would not be applicable to other sites.

TRPH was detected in one groundwater sample; the detected concentration did not exceed its CTL.

Lead exceeded its CTL in the groundwater samples collected from each screening point.

## 5.3 CONCLUSIONS

Exceedances of Florida's Residential and Industrial direct exposure SCTLs and Leachability to groundwater SCTLs for petroleum-related constituent impacted soil were documented during assessment activities at Site 5 – Saufley Field, located in Pensacola, Florida. Potential exposure to the petroleum-related constituent impacted soil and groundwater is minimized by the predominant impervious surface cover and depth to groundwater in the study area. The impervious surface cover will inhibit infiltration of precipitation and minimize the potential for leaching of petroleum-related constituents from impacted soil to groundwater.

Review of the laboratory analytical data indicates that benzo(a)pyrene was detected in three groundwater samples collected from Site 5 at concentrations greater than its limit of quantitation which is the surrogate for its Florida CTL. However, based on FDEP's rounding memo (FDEP, 2011), the detected concentrations would round down to 0.2 µg/L which meets the surrogate Florida CTL.

Also, the analytes that exceeded their Leachability to groundwater SCTLs, benzo(a)anthracene, benzo(g,h,i)perylene, dibenzo(a,h)anthracene and TRPH, were not detected in groundwater samples at concentrations that exceeded their CTLs.

Although lead was detected at concentrations exceeding its CTL, investigations of groundwater from Site 4, Saufley Field (Tetra Tech, 2011b), suggest that the exceedance is most likely due to turbidity of the DPT groundwater sample.

Based on the findings presented herein, the delineation of petroleum-related constituents in soil and groundwater is considered complete and no further assessment activities are warranted. Additional remedial action is warranted and the remedial measures developed during Partnering Team Meeting are discussed below.

## 5.4 RECOMMENDATIONS

During the Partnering Team Meeting on June 14 and 15, 2012, all parties agreed on a path forward for the areas of contamination at Site 5.

<u>B(a)P Exceedance in Soil Sample Location 05-SS-088</u>

Based on discussions with FDEP (email dated 3/21/2012), a site specific decision was made to not require further assessment or remediation of the area in vicinity of soil sample 05-SS-088 pursuant to Chapter 62-770, F.A.C. based on the following reasons:

- The analytical result of 0.129572 mg/kg is covered by FDEP's rounding memo (FDEP, 2011) and per that memo rounds down to 0.1 mg/kg which is the Residential direct exposure B(a)P TEQ SCTL.

- The soil sample was collected in the subsurface (4- to 6-foot bls), therefore Residential direct exposure is not a concern unless the area is excavated.

- The sample is under a parking lot of an active military facility.

- Other surface and subsurface soil samples collected over 500 feet in either direction along the pipeline did not detect carcinogenic PAH at concentrations that exceeded the Residential direct exposure B(a)P TEQ SCTL which is not indicative of gross contamination.

It is noted that the above reasoning going into this site-specific determination would not be applicable to other sites.

Soil Contamination Area 1 (Figure 4-2)

- Benzo(a)pyrene and the carcinogenic PAH B(a)P TEQs exceeded their Florida SCTLs in surface soil samples collected from the 0- to 2-foot bls interval (05-SS-111, 05-SS-112, 05-SS-113, 05-SS-114, 05-SS-115, 05-SS-117, 05-SS-128, 05-SS-130, and 05-SS-131) and subsurface soil samples collected from the 4- to 6-foot bls interval (05-SS-75 and 05-SS-117).

- Soil samples collected from the 0- to 2-foot bls interval at soil boring locations 05-SS-112, 05-SS-114, 05-SS-117, 05-SS-128, and 05-SS-130 contained benzo(a)pyrene at concentrations three times above its Residential Direct Exposure SCTL and therefore are defined by Chapter 62-770.680 as hot spots.

- Tetra Tech recommends that these hot spots (locations 05-SS-112, 05-SS-114, 05-SS-117, 05-SS-128, and 05-SS-130) be excavated to two feet bls.

- As part of determining risk management options for the benzo(a)pyrene and other carcinogenic PAHs detected in soil samples, a 95% Upper Confidence Limit (UCL) calculation was performed on the B(a)P TEQs using the FDEP FLUCL v1.1 UCL Calculator to determine the average concentration for exposure to site soils containing carcinogenic PAHs. The 95% UCL tables and graphs for the 0- to 2- and 4- to 6-foot bls intervals are included in Appendix E.

- The 95% UCL calculation for carcinogenic PAHs in the 0- to 2-foot bls interval around 05-SS-075 and 05-SS-111 does not exceed the Residential Direct Exposure SCTL of 100 µg/kg after the hot spots (locations 05-SS-112, 05-SS-114, 05-SS-117, 05-SS-128 and 05-SS-130) and two additional locations (05-SS-111 and 05-SS-131) have been removed and half the Method Detection Limit (MDL) is used as data points for the previous hot spot locations (clean fill assumed as half the MDL). Based on the 95% UCL calculation, following removal of the aforementioned areas, carcinogenic PAH detected in the soil samples in the 0 to 2 feet bls interval will be within levels that are considered protective of Residential Direct Exposure.

- The 95% UCL calculation for the carcinogenic PAHs in the 4 to 6 feet bls interval is 93.15 µg/kg and does not exceed the Residential Direct Exposure of 100 µg/kg. Based on the 95% UCL calculation, carcinogenic PAH detected in the soil samples in the 4 to 6 feet bls interval are within levels that are considered protective of Residential Direct Exposure. Tetra Tech recommends that no remedial actions are needed at these locations at 4- to 6-feet bls.

- The excavation of the 0- to 2-foot bls interval proposed above will also address the TRPH exceedance detected at soil sample location 05-SS-131.

<u>Soil Contamination Area 2 (See Figure 4-3)</u>

- Soil samples were collected from the 0- to 2-foot, 2- to 4-foot, and 4- to 6-foot bls intervals and analyzed for TRPH.

- TRPH exceeded its Residential Direct Exposure (460 mg/kg) and Leachability to groundwater (340 mg/kg) SCTLs in the soil samples collected from the 0- to 2-foot bls interval of soil samples 05-SS-053 and 05-SS-099).

- As part of determining risk management options for the TRPH detected in soil sample 05-SS-053, a 95% UCL calculation was performed using the FDEP FLUCL v1.1 UCL Calculator to determine the average concentration for exposure to site soils containing TRPH. The 95% UCL tables and graphs are included in Appendix E.

- The 95% UCL calculation for TRPH is 43.5 mg/kg, therefore the TRPH concentration does not exceed its Residential Direct Exposure SCTL (460 mg/kg). Based on the 95% UCL calculation, TRPH detected in the soil sample is within levels that are considered protective of Residential Direct Exposure. Tetra Tech recommends no remedial actions at this area.

- Soil samples were collected from the 0- to 2-foot bls interval (05-SS-132-0002), 2- to 4-foot bls intervals (05-SO-132-0204) and the 4- to 6-foot bls intervals in the same area for TPH speciation.

- The C5-C7 aromatics, C6-C8 aliphatics and the C7-C8 aromatics exceeded their specific Leachability to groundwater criteria.

- TRPH was not detected in the groundwater sample collected at boring location 05-SS-053; therefore, the TRPH concentrations detected in the soil are not impacting groundwater.

Soil Contamination Area 3 (Figure 4-4)

- Benzo(a)pyrene and B(a)P TEQ exceeded their Residential Direct Exposure SCTL in sample 05-SS-068 in the 4- to 6-foot bls interval.

- Based on multiple sampling events, the benzo(a)pyrene and carcinogenic PAHs exceedance at Location 068 has been delineated to a total 10-foot by 10-foot (5 feet away from the original sample in all four cardinal directions) by 2-foot deep area in the 4- to 6-foot bls interval. Therefore, Tetra Tech recommends the removal of the hot spot (approximately 200 cubic feet of soil).

Groundwater Contamination Lead

In the May 2011, Partnering Team meeting FDEP recommended reviewing the lead concentrations detected in groundwater samples collected from permanent monitoring wells associated with Saufley Field Site 4 to determine if the lead exceedances detected in groundwater collected from screen points are a result of higher turbidities associated with an unpacked screen point.

The highest concentration of lead detected in groundwater samples collected at Site 4 in 2007 was 12.2 µg/L (CTL is 15 µg/L) at a turbidity of 9.2 Nephelometric Turbidity Units. Based on the 2007 analytical results, lead was not a contaminant of concern in subsequent Site 4 sampling event in April 2011 (Tetra Tech, 2011b). Based on this information, it appears that the lead exceedances detected at Site 5 (Figure 4-5) appear to be the result of analyzing samples collected from turbid groundwater generated through the use of screen point samplers; and may not necessarily be an indicator of lead-impacted groundwater at Site 5.

Groundwater Contamination PAHs

Benzo(a)anthracene was detected at concentrations above the limit of quantitation which is the surrogate for its Florida CTL in groundwater samples collected from screen point locations 05-SS-014, 05-SS-039, and 05-SS-053 (Figure 4-5) at concentrations of 0.238 µg/L, 0.244 µg/L, and 0.242 µg/L, respectively. Based on FDEP's rounding memo (FDEP 2011), the detected concentrations would round down to 0.2 µg/L which meets the surrogate Florida CTL and therefore, is not a concern.

All remedial action activities will be reported in a SARA upon completion.

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# TABLES

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB001 | 3/22/2011 | 0-2 | 1.9 | NM | 1.9 | |
| | | 2-4 | 3.1 | NM | 3.1 | |
| | | 4-6 | 2.9 | NM | 2.9 | |
| | | 6-8 | 2.7 | NM | 2.7 | |
| | | 8-10 | 2.3 | NM | 2.3 | |
| | | 10-15 | 3.1 | NM | 3.1 | |
| | | 15-20 | 5.5 | NM | 5.5 | |
| SB002 | 3/22/2011 | 0-2 | 1.7 | NM | 1.7 | |
| | | 2-4 | 1.6 | NM | 1.6 | |
| | | 4-6 | 2.4 | NM | 2.4 | |
| | | 6-8 | 2.2 | NM | 2.2 | |
| | | 8-10 | 2.4 | NM | 2.4 | |
| | | 10-15 | 2.4 | NM | 2.4 | |
| | | 15-20 | 3.5 | NM | 3.5 | |
| SB003 | 3/22/2011 | 0-2 | 1.4 | NM | 1.4 | |
| | | 2-4 | 1.8 | NM | 1.8 | |
| | | 4-6 | 1.4 | NM | 1.4 | |
| | | 6-8 | 2.1 | NM | 2.1 | |
| | | 8-10 | 1.1 | NM | 1.1 | |
| | | 10-15 | 1.7 | NM | 1.7 | |
| | | 15-20 | 1.4 | NM | 1.4 | |
| SB004 | 3/22/2011 | 0-2 | 2.8 | NM | 2.8 | |
| | | 2-4 | 3.0 | NM | 3.0 | |
| | | 4-6 | 4.7 | NM | 4.7 | |
| | | 6-8 | 5.3 | NM | 5.3 | |
| | | 8-10 | 5.1 | NM | 5.1 | |
| | | 10-15 | 5.4 | NM | 5.4 | |
| | | 15-20 | 5.6 | NM | 5.6 | |
| SB005 | 3/22/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 1.5 | NM | 1.5 | |
| SB006 | 3/23/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB007 | 3/23/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB007 | 3/23/2011 | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB008 | 3/23/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.9 | NM | 0.9 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB009 | 3/23/2011 | 0-2 | 0.8 | NM | 0.8 | |
| | | 2-4 | 0.3 | NM | 0.3 | |
| | | 4-6 | 1.7 | NM | 1.7 | |
| | | 6-8 | 1.1 | NM | 1.1 | |
| | | 8-10 | 1.2 | NM | 1.2 | |
| | | 10-15 | 1.2 | NM | 1.2 | |
| | | 15-20 | NM | NM | NM | |
| SB010 | 3/23/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 1.1 | NM | 1.1 | |
| | | 4-6 | 1.6 | NM | 1.6 | |
| | | 6-8 | 0.5 | NM | 0.5 | |
| | | 8-10 | 0.7 | NM | 0.7 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB011 | 3/23/2011 | 0-2 | 0.2 | NM | 0.2 | |
| | | 2-4 | 0.9 | NM | 0.9 | |
| | | 4-6 | 0.7 | NM | 0.7 | |
| | | 6-8 | 1.7 | NM | 1.7 | |
| | | 8-10 | 0.4 | NM | 0.4 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 1.8 | NM | 1.8 | |
| SB012 | 3/23/2011 | 0-2 | 0.7 | NM | 0.7 | |
| | | 2-4 | 0.9 | NM | 0.9 | |
| | | 4-6 | 0.9 | NM | 0.9 | |
| | | 6-8 | 1.1 | NM | 1.1 | |
| | | 8-10 | 1.3 | NM | 1.3 | |
| | | 10-15 | 2.0 | NM | 2.0 | |
| | | 15-20 | 1.4 | NM | 1.4 | |
| SB013 | 3/24/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.2 | NM | 0.2 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.3 | NM | 0.3 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.7 | NM | 0.7 | |
| SB014 | 3/24/2011 | 0-2 | 0.0 | NM | 0.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB014 | 3/24/2011 | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.6 | NM | 0.6 | |
| | | 20-25 | NM | NM | NM | |
| | | 25-30 | NM | NM | NM | |
| | | 30-35 | NM | NM | NM | |
| | | 35-40 | NM | NM | NM | |
| | | 40-45 | NM | NM | NM | |
| | | 45-50 | NM | NM | NM | |
| SB015 | 3/24/2011 | 0-2 | 1.5 | NM | 1.5 | |
| | | 2-4 | 1.7 | NM | 1.7 | |
| | | 4-6 | 2.0 | NM | 2.0 | |
| | | 6-8 | 1.8 | NM | 1.8 | |
| | | 8-10 | 1.4 | NM | 1.4 | |
| | | 10-15 | 1.8 | NM | 1.8 | |
| | | 15-20 | 3.0 | NM | 3.0 | |
| SB016 | 3/24/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.4 | NM | 0.4 | |
| | | 6-8 | 0.6 | NM | 0.6 | |
| | | 8-10 | 1.0 | NM | 1.0 | |
| | | 10-15 | 1.2 | NM | 1.2 | |
| | | 15-20 | 1.0 | NM | 1.0 | |
| SB017 | 3/24/2011 | 0-2 | 1.0 | NM | 1.0 | |
| | | 2-4 | 0.9 | NM | 0.9 | |
| | | 4-6 | 1.7 | NM | 1.7 | |
| | | 6-8 | 1.6 | NM | 1.6 | |
| | | 8-10 | 1.1 | NM | 1.1 | |
| | | 10-15 | 2.6 | NM | 2.6 | |
| | | 15-20 | 6.2 | NM | 6.2 | |
| SB018 | 3/24/2011 | 0-2 | 7.0 | NM | 7.0 | |
| | | 2-4 | 6.3 | NM | 6.3 | |
| | | 4-6 | 7.0 | NM | 7.0 | |
| | | 6-8 | 2.3 | NM | 2.3 | |
| | | 8-10 | 7.6 | NM | 7.6 | |
| | | 10-15 | 5.0 | NM | 5.0 | |
| | | 15-20 | 14.2 | 1.5 | 12.8 | |
| | | 20-25 | 0.7 | NM | 0.7 | |
| | | 25-30 | 2.8 | NM | 2.8 | |
| SB019 | 3/24/2011 | 0-2 | 2.7 | NM | 2.7 | |
| | | 2-4 | 1.9 | NM | 1.9 | |
| | | 4-6 | 2.2 | NM | 2.2 | |
| | | 6-8 | 4.2 | NM | 4.2 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB019 | 3/24/2011 | 8-10 | 3.4 | NM | 3.4 | |
| | | 10-15 | 2.9 | NM | 2.9 | |
| | | 15-20 | 2.9 | NM | 2.9 | |
| SB020 | 3/25/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 1.1 | NM | 1.1 | |
| | | 4-6 | 0.4 | NM | 0.4 | |
| | | 6-8 | 1.1 | NM | 1.1 | |
| | | 8-10 | 2.0 | NM | 2.0 | |
| | | 10-15 | 2.3 | NM | 2.3 | |
| | | 15-20 | 1.7 | NM | 1.7 | |
| SB021 | 3/25/2011 | 0-2 | 2.1 | NM | 2.1 | |
| | | 2-4 | 2.2 | NM | 2.2 | |
| | | 4-6 | 2.6 | NM | 2.6 | |
| | | 6-8 | 2.8 | NM | 2.8 | |
| | | 8-10 | 3.3 | NM | 3.3 | |
| | | 10-15 | 2.9 | NM | 2.9 | |
| | | 15-20 | 2.0 | NM | 2.0 | |
| SB022 | 3/25/2011 | 0-2 | 2.3 | NM | 2.3 | |
| | | 2-4 | 1.9 | NM | 1.9 | |
| | | 4-6 | 2.2 | NM | 2.2 | |
| | | 6-8 | 2.4 | NM | 2.4 | |
| | | 8-10 | 2.1 | NM | 2.1 | |
| | | 10-15 | 2.5 | NM | 2.5 | |
| | | 15-20 | 7.3 | NM | 7.3 | |
| SB023 | 3/25/2011 | 0-2 | 1.0 | NM | 1.0 | |
| | | 2-4 | 1.4 | NM | 1.4 | |
| | | 4-6 | 1.6 | NM | 1.6 | |
| | | 6-8 | 1.4 | NM | 1.4 | |
| | | 8-10 | 1.6 | NM | 1.6 | |
| | | 10-15 | 1.3 | NM | 1.3 | |
| | | 15-20 | 2.5 | NM | 2.5 | |
| SB024 | 3/25/2011 | 0-2 | 2.5 | NM | 2.5 | |
| | | 2-4 | 1.1 | NM | 1.1 | |
| | | 4-6 | 1.2 | NM | 1.2 | |
| | | 6-8 | 2.9 | NM | 2.9 | |
| | | 8-10 | 2.9 | NM | 2.9 | |
| | | 10-15 | 2.7 | NM | 2.7 | |
| | | 15-20 | 2.4 | NM | 2.4 | |
| SB025 | 3/25/2011 | 0-2 | 2.9 | NM | 2.9 | |
| | | 2-4 | 3.0 | NM | 3.0 | |
| | | 4-6 | 2.8 | NM | 2.8 | |
| | | 6-8 | 3.4 | NM | 3.4 | |
| | | 8-10 | 3.8 | NM | 3.8 | |
| | | 10-15 | 5.7 | NM | 5.7 | |
| | | 15-20 | 5.8 | NM | 5.8 | |
| SB026 | 3/25/2011 | 0-2 | 0.5 | NM | 0.5 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB026 | 3/25/2011 | 2-4 | 1.9 | NM | 1.9 | |
| | | 4-6 | 1.4 | NM | 1.4 | |
| | | 6-8 | 1.8 | NM | 1.8 | |
| | | 8-10 | 1.9 | NM | 1.9 | |
| | | 10-15 | 2.3 | NM | 2.3 | |
| | | 15-20 | 5.4 | NM | 5.4 | |
| SB027 | 3/28/2011 | 0-2 | 0.6 | NM | 0.6 | |
| | | 2-4 | 0.5 | NM | 0.5 | |
| | | 4-6 | 0.5 | NM | 0.5 | |
| | | 6-8 | 1.4 | NM | 1.4 | |
| | | 8-10 | 1.0 | NM | 1.0 | |
| | | 10-15 | 1.2 | NM | 1.2 | |
| | | 15-20 | 1.4 | NM | 1.4 | |
| SB028 | 3/28/2011 | 0-2 | 1.5 | NM | 1.5 | |
| | | 2-4 | 1.3 | NM | 1.3 | |
| | | 4-6 | 0.8 | NM | 0.8 | |
| | | 6-8 | 1.4 | NM | 1.4 | |
| | | 8-10 | 1.5 | NM | 1.5 | |
| | | 10-15 | 1.7 | NM | 1.7 | |
| | | 15-20 | 1.2 | NM | 1.2 | |
| SB029 | 4/10/2011 | 0-2 | 1.8 | NM | 1.8 | |
| | | 2-4 | 1.3 | NM | 1.3 | |
| | | 4-6 | 1.0 | NM | 1.0 | |
| | | 6-8 | 1.9 | NM | 1.9 | |
| | | 8-10 | 2.5 | NM | 2.5 | |
| | | 10-15 | 1.1 | NM | 1.1 | |
| | | 15-20 | 2.6 | NM | 2.6 | |
| SB030 | 3/28/2011 | 0-2 | 0.6 | NM | 0.6 | |
| | | 2-4 | 0.4 | NM | 0.4 | |
| | | | | | | From 4' -13' bls there was a void with no soil |
| | | 4-6 | | NM | | |
| | | 6-8 | | NM | | |
| | | 8-10 | | NM | | |
| | | 10-15 | | NM | | |
| | | 15-20 | 2.3 | NM | 2.3 | |
| SB031 | 3/28/2011 | 0-2 | 2.3 | NM | 2.3 | |
| | | 2-4 | 1.9 | NM | 1.9 | |
| | | 4-6 | 2.4 | NM | 2.4 | |
| | | 6-8 | 1.5 | NM | 1.5 | |
| | | 8-10 | 2.8 | NM | 2.8 | |
| | | 10-15 | 2.4 | NM | 2.4 | |
| | | 15-20 | 1.2 | NM | 1.2 | |
| SB032 | 3/28/2011 | 0-2 | 1.4 | NM | 1.4 | |
| | | 2-4 | 1.7 | NM | 1.7 | |
| | | 4-6 | 1.0 | NM | 1.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB021 | 3/28/2011 | 6-8 | 1.5 | NM | 1.5 | |
| | | 8-10 | 1.5 | NM | 1.5 | |
| | | 10-15 | 0.5 | NM | 0.5 | |
| | | 15-20 | 0.3 | NM | 0.3 | |
| SB033 | 3/28/2011 | 0-2 | 1.6 | NM | 1.6 | 0-8" Concrete core |
| | | 2-4 | 0.4 | NM | 0.4 | |
| | | 4-6 | 0.7 | NM | 0.7 | |
| | | 6-8 | 0.9 | NM | 0.9 | |
| | | 8-10 | 1.3 | NM | 1.3 | |
| | | 10-15 | 0.8 | NM | 0.8 | |
| | | 15-20 | 0.8 | NM | 0.8 | |
| SB034 | 3/28/2011 | 0-2 | 1.4 | NM | 1.4 | |
| | | 2-4 | 0.9 | NM | 0.9 | |
| | | 4-6 | 0.7 | NM | 0.7 | |
| | | 6-8 | 2.2 | NM | 2.2 | |
| | | 8-10 | 1.2 | NM | 1.2 | |
| | | 10-15 | 1.2 | NM | 1.2 | |
| | | 15-20 | 1.6 | NM | 1.6 | |
| SB035 | 3/28/2011 | 0-2 | 0.9 | NM | 0.9 | 0-8" Concrete core |
| | | 2-4 | 0.7 | NM | 0.7 | |
| | | 4-6 | 0.5 | NM | 0.5 | |
| | | 6-8 | 1.8 | NM | 1.8 | |
| | | 8-10 | 1.0 | NM | 1.0 | |
| | | 10-15 | 1.0 | NM | 1.0 | |
| | | 15-20 | 0.8 | NM | 0.8 | |
| SB036 | 3/28/2011 | 0-2 | 0.7 | NM | 0.7 | 0-8" Concrete core |
| | | 2-4 | 0.3 | NM | 0.3 | |
| | | 4-6 | 1.2 | NM | 1.2 | |
| | | 6-8 | 1.0 | NM | 1.0 | |
| | | 8-10 | 3.0 | NM | 3.0 | |
| | | 10-15 | 3.1 | NM | 3.1 | |
| | | 15-20 | 2.0 | NM | 2.0 | |
| SB037 | 4/6/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB038 | 4/6/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB039 | 4/6/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB040 | 4/6/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | NM | NM | NM | |
| SB041 | 4/6/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB042 | 4/6/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | Sweet odor |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB043 | 4/6/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB044 | 4/6/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.5 | NM | 0.5 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB045 | 4/8/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-6" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB045 | 4/8/2011 | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB046 | 4/8/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB047 | 4/8/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB048 | 4/8/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB049 | 4/8/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB050 | 4/8/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-8" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB051 | 4/8/2011 | 0-2 | 0.1 | NM | 0.1 | Concrete core 0-7" |
| | | 2-4 | 0.1 | NM | 0.1 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.3 | NM | 0.3 | |
| | | 8-10 | 0.6 | NM | 0.6 | |
| | | 10-15 | 0.8 | NM | 0.8 | |
| | | 15-20 | 2.8 | NM | 2.8 | |
| SB052 | 4/10/2011 | 0-2 | 0.7 | NM | 0.7 | Concrete core 0-7" |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB052 | 4/10/2011 | 2-4 | 0.9 | NM | 0.9 | |
| | | 4-6 | 0.6 | NM | 0.6 | |
| | | 6-8 | 1.5 | NM | 1.5 | |
| | | 8-10 | 1.6 | NM | 1.6 | |
| | | 10-15 | 1.4 | NM | 1.4 | |
| | | 15-20 | 1.9 | NM | 1.9 | |
| SB053 | 4/10/2011 | 0-2 | >3600 | NM | >3600 | Concrete core 0-6" |
| | | 2-4 | 259 | NM | 259 | moist petro like odor |
| | | 4-6 | 23.9 | 4.6 | 19.3 | petro like odor |
| | | 6-8 | 19.2 | 3.4 | 15.8 | slight petro odor |
| | | 8-10 | 2.0 | NM | 2 | |
| | | 10-15 | 7.9 | NM | 7.9 | |
| | | 15-20 | 17.6 | 1.2 | 16.4 | |
| | | 20-25 | 1.4 | NM | 1.4 | |
| | | 25-30 | 18.4 | 1.2 | 17.2 | |
| SB054 | 4/10/2011 | 0-2 | 1.3 | NM | 1.3 | Concrete core 0-7" |
| | | 2-4 | 1.0 | NM | 1.0 | |
| | | 4-6 | 1.9 | NM | 1.9 | |
| | | 6-8 | 1.4 | NM | 1.4 | |
| | | 8-10 | 1.4 | NM | 1.4 | |
| | | 10-15 | 1.4 | NM | 1.4 | |
| | | 15-20 | 2.3 | NM | 2.3 | |
| SB055 | 4/5/2011 | 0-2 | 4.0 | NM | 4.0 | Concrete core 0-7" |
| | | 2-4 | 5.1 | NM | 5.1 | |
| | | 4-6 | 4.4 | NM | 4.4 | |
| | | 6-8 | 1.5 | NM | 1.5 | |
| | | 8-10 | 1.4 | NM | 1.4 | |
| | | 10-15 | 1.6 | NM | 1.6 | |
| | | 15-20 | 0.3 | NM | 0.3 | |
| SB056 | 4/5/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.4 | NM | 0.4 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.9 | NM | 0.9 | |
| | | 8-10 | 1.0 | NM | 1.0 | |
| | | 10-15 | 1.6 | NM | 1.6 | |
| | | 15-20 | 1.8 | NM | 1.8 | |
| SB057 | 4/5/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.1 | NM | 0.1 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.2 | NM | 0.2 | |
| | | 8-10 | 0.2 | NM | 0.2 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.1 | NM | 0.1 | |
| SB058 | 4/5/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB059 | 4/5/2011 | 0-2 | 0.3 | NM | 0.3 | Concrete core 0-8" |
| | | 2-4 | 0.1 | NM | 0.1 | |
| | | 4-6 | 0.3 | NM | 0.3 | |
| | | 6-8 | 0.8 | NM | 0.8 | |
| | | 8-10 | 0.3 | NM | 0.3 | |
| | | 10-15 | 0.4 | NM | 0.4 | |
| | | 15-20 | 0.3 | NM | 0.3 | |
| SB060 | 4/5/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-8" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.3 | NM | 0.3 | |
| | | 8-10 | 0.3 | NM | 0.3 | |
| | | 10-15 | 0.4 | NM | 0.4 | |
| | | 15-20 | 0.4 | NM | 0.4 | |
| SB061 | 4/5/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-8" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 1.7 | NM | 1.7 | |
| SB062 | 4/5/2011 | 0-2 | 0.1 | NM | 0.1 | Concrete core 0-8" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 1.0 | |
| SB063 | 4/5/2011 | 0-2 | 0.1 | NM | 0.1 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.4 | NM | 0.4 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | NM | NM | NM | |
| SB064 | 4/4/2011 | 0-2 | 1.7 | NM | 1.7 | Concrete core 0-7" |
| | | 2-4 | 1.3 | NM | 1.3 | |
| | | 4-6 | 1.8 | NM | 1.8 | |
| | | 6-8 | 2.0 | NM | 2.0 | |
| | | 8-10 | 1.8 | NM | 1.8 | |
| | | 10-15 | 2.1 | NM | 2.1 | |
| | | 15-20 | 0.9 | NM | 0.9 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB065 | 4/4/2011 | 0-2 | 0.3 | NM | 0.3 | Concrete core 0-8" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.4 | NM | 0.4 | |
| | | 6-8 | 1.3 | NM | 1.3 | |
| | | 8-10 | 1.7 | NM | 1.7 | |
| | | 10-15 | 0.7 | NM | 0.7 | |
| | | 15-20 | NM | NM | NM | |
| SB066 | 3/28/2011 | 0-2 | 1.1 | NM | 1.1 | |
| | | 2-4 | 1.2 | NM | 1.2 | |
| | | 4-6 | 1.5 | NM | 1.5 | |
| | | 6-8 | 1.7 | NM | 1.7 | |
| | | 8-10 | 1.7 | NM | 1.7 | |
| | | 10-15 | 0.9 | NM | 0.9 | |
| | | 15-20 | 0.4 | NM | 0.4 | |
| SB067 | 4/11/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete 0-4" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB068 | 3/28/2011 | 0-2 | 0.7 | NM | 0.7 | |
| | | 2-4 | 0.9 | NM | 0.9 | |
| | | 4-6 | 1.1 | NM | 1.1 | |
| | | 6-8 | 1.7 | NM | 1.7 | |
| | | 8-10 | 2.5 | NM | 2.5 | |
| | | 10-15 | 2.4 | NM | 2.4 | |
| | | 15-20 | 3.1 | NM | 3.1 | |
| SB069 | 3/28/2011 | 0-2 | 1.8 | NM | 1.8 | |
| | | 2-4 | 2.3 | NM | 2.3 | |
| | | 4-6 | 1.7 | NM | 1.7 | |
| | | 6-8 | 0.4 | NM | 0.4 | |
| | | 8-10 | 0.8 | NM | 0.8 | |
| | | 10-15 | 2.1 | NM | 2.1 | |
| | | 15-20 | 3.0 | NM | 3.0 | |
| SB070 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB071 | 4/11/2011 | 0-2 | 0.0 | NM | 0.0 | Asphalt 0-3" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB072 | 4/11/2011 | 0-2 | 0.0 | NM | 0.0 | Asphalt 0-3" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB073 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB074 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB075 | 4/11/2011 | 0-2 | 0.0 | NM | 0.0 | Asphalt 0-3" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB076 | 4/11/2011 | 0-2 | 0.0 | NM | 0.0 | Asphalt 0-3" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | NM | NM | NM | |
| SB077 | 4/11/2011 | 0-2 | 0.0 | NM | 0.0 | Asphalt 0-3" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.9 | NM | 0.9 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB078 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB078 | 3/29/2011 | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB079 | 3/29/2011 | 0-2 | 0.6 | NM | 0.6 | |
| | | 2-4 | 0.4 | NM | 0.4 | |
| | | 4-6 | 0.4 | NM | 0.4 | |
| | | 6-8 | 0.3 | NM | 0.3 | |
| | | 8-10 | 0.3 | NM | 0.3 | |
| | | 10-15 | 0.7 | NM | 0.7 | |
| | | 15-20 | 7.5 | NM | 7.5 | |
| SB080 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB081 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.7 | NM | 0.7 | |
| SB082 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB083 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.1 | NM | 0.1 | |
| | | 6-8 | 0.6 | NM | 0.6 | |
| | | 8-10 | 0.6 | NM | 0.6 | |
| | | 10-15 | 0.1 | NM | 0.1 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB084 | 3/29/2011 | 0-2 | 0.2 | NM | 0.2 | |
| | | 2-4 | 0.7 | NM | 0.7 | |
| | | 4-6 | 1.9 | NM | 1.9 | |
| | | 6-8 | 1.6 | NM | 1.6 | |
| | | 8-10 | 1.3 | NM | 1.3 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB084 Cont | 3/29/2011 | 10-15 | 0.7 | NM | 0.7 | |
| | | 15-20 | 7.2 | NM | 7.2 | |
| | | 20-25 | NM | NM | NM | |
| | | 25-30 | NM | NM | NM | |
| | | 30-35 | NM | NM | NM | |
| | | 35-40 | NM | NM | NM | |
| | | 40-45 | NM | NM | NM | |
| | | 45-50 | NM | NM | NM | |
| SB085 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.4 | NM | 0.4 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 2.0 | NM | 2.0 | |
| | | 15-20 | 0.6 | NM | 0.6 | |
| SB086 | 3/29/2011 | 0-2 | 0.5 | NM | 0.5 | |
| | | 2-4 | 0.3 | NM | 0.3 | |
| | | 4-6 | 0.8 | NM | 0.8 | |
| | | 6-8 | 3.3 | NM | 3.3 | |
| | | 8-10 | 0.3 | NM | 0.3 | |
| | | 10-15 | 0.2 | NM | 0.2 | |
| | | 15-20 | 1.0 | NM | 1.0 | |
| SB087 | 3/29/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.1 | NM | 0.1 | |
| | | 15-20 | 0.3 | NM | 0.3 | |
| SB088 | 4/10/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.4 | NM | 0.4 | |
| SB089 | 4/10/2011 | 0-2 | 1.0 | NM | 1.0 | 0-2" Asphalt core |
| | | 2-4 | 0.7 | NM | 0.7 | |
| | | 4-6 | 1.8 | NM | 1.8 | |
| | | 6-8 | 2.3 | NM | 2.3 | |
| | | 8-10 | 2.4 | NM | 2.4 | |
| | | 10-15 | 0.2 | NM | 0.2 | |
| | | 15-20 | 0.4 | NM | 0.4 | |
| SB090 | 4/10/2011 | 0-2 | 2.0 | NM | 2.0 | |
| | | 2-4 | 2.0 | NM | 2.0 | |
| | | 4-6 | 1.4 | NM | 1.4 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB090 Cont | 4/10/2011 | 6-8 | 1.2 | NM | 1.2 | |
| | | 8-10 | 2.0 | NM | 2.0 | |
| | | 10-15 | 0.5 | NM | 0.5 | |
| | | 15-20 | 2.9 | NM | 2.9 | |
| SB091 | 4/11/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.4 | NM | 0.4 | |
| | | 10-15 | 0.3 | NM | 0.3 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB092 | 4/11/2011 | 0-2 | 0.4 | NM | 0.4 | Asphalt 0-3" |
| | | 2-4 | 1.0 | NM | 1.0 | |
| | | 4-6 | 0.1 | NM | 0.1 | |
| | | 6-8 | 0.6 | NM | 0.6 | |
| | | 8-10 | 1.2 | NM | 1.2 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.5 | NM | 0.5 | |
| SB093 | 4/12/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB094 | 4/12/2011 | 0-2 | 0.0 | NM | 0.0 | |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 1.1 | NM | 1.1 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB095 | 4/12/2011 | 0-2 | 0.0 | NM | 0.0 | Concrete core 0-8" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB096 | 4/12/2011 | 0-2 | 0.1 | NM | 0.1 | Concrete core 0-7" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.7 | NM | 0.7 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB097 | 4/12/2011 | 0-2 | 0.0 | NM | 0.0 | concrete/asphalt core 0-8" |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.0 | NM | 0.0 | |
| SB098 | 4/12/2011 | 0-2 | 0.7 | NM | 0.7 | concrete/asphalt core 0-7" |
| | | 2-4 | 0.4 | NM | 0.4 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| | | 8-10 | 0.0 | NM | 0.0 | |
| | | 10-15 | 0.0 | NM | 0.0 | |
| | | 15-20 | 0.2 | NM | 0.2 | |
| SB099 | 7/30/2011 | 0-2 | 1700.0 | 300 | 1400 | concrete |
| SB100 | 7/30/2011 | 0-2 | 9.1 | NM | 9.1 | concrete |
| | | 2-4 | 2.2 | NM | 2.2 | |
| | | 4-6 | 5.6 | NM | 5.6 | |
| SB101 | 7/30/2011 | 0-2 | 16.9 | 1.2 | 15.7 | concrete |
| | | 2-4 | 69.2 | 6.2 | 63 | |
| | | 4-6 | 7.9 | NM | 7.9 | |
| SB102 | 7/30/2011 | 0-2 | 36.9 | 14 | 32.9 | concrete |
| | | 2-4 | 8.3 | NM | 8.3 | |
| SB103 | 7/30/2011 | 0-2 | 14.5 | 1.5 | 13 | concrete |
| | | 2-4 | 1.7 | NM | 1.7 | |
| | | 4-6 | 1.2 | NM | 1.2 | |
| SB104 | 7/30/2011 | 0-2 | 3.9 | NM | 3.9 | grass |
| | | 2-4 | 24.9 | 3.3 | 21.6 | |
| | | 4-6 | 0.9 | NM | 0.9 | |
| | | 6-8 | 4.8 | NM | 4.8 | |
| SB105 | 7/30/2011 | 0-2 | 1.9 | NM | 1.9 | asphalt / concrete |
| | | 2-4 | 0.4 | NM | 0.4 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 4.4 | NM | 4.4 | |
| SB106 | 7/30/2011 | 0-2 | 4.0 | NM | 4.0 | asphalt |
| | | 2-4 | 2.5 | NM | 2.5 | |
| | | 4-6 | 0.6 | NM | 0.6 | |
| | | 6-8 | 0.5 | NM | 0.5 | |
| SB107 | 7/30/2011 | 0-2 | 0.0 | NM | 0.0 | grass |
| | | 2-4 | 0.3 | NM | 0.3 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| SB108 | 7/30/2011 | 0-2 | 0.0 | NM | 0.0 | asphalt |
| | | 2-4 | 0.0 | NM | 0.0 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| SB108 | 7/30/2011 | 4-6 | 1.6 | NM | 1.6 | |
| | | 6-8 | 2.1 | NM | 2.1 | |
| SB109 | 7/30/2011 | 0-2 | 0.0 | NM | 0.0 | asphalt |
| | | 2-4 | 1.1 | NM | 1.1 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.1 | NM | 0.1 | |
| SB110 | 7/30/2011 | 0-2 | 0.2 | NM | 0.2 | asphalt |
| | | 2-4 | 0.0 | NM | 0.0 | |
| | | 4-6 | 1.4 | NM | 1.4 | |
| | | 6-8 | 0.2 | NM | 0.2 | |
| SB111 | 7/30/2011 | 0-2 | 0.0 | NM | 0.0 | asphalt |
| | | 2-4 | 2.1 | NM | 2.1 | |
| | | 4-6 | 0.0 | NM | 0.0 | |
| | | 6-8 | 0.0 | NM | 0.0 | |
| 05-SS-112-0002 | 12/6/2011 | 0-2 | 1.4 | 1.0 | 0.4 | |
| 05-SS-112-0406 | 12/6/2011 | 4-6 | 2.6 | 0.6 | 2.0 | |
| 05-SS-113-0002 | 12/6/2011 | 0-2 | 3.2 | 0.7 | 2.5 | |
| 05-SS-113-0406 | 12/6/2011 | 4-6 | 4.8 | 0.7 | 4.1 | |
| 05-SS-114-0002 | 12/6/2011 | 0-2 | 3.6 | 0.7 | 2.9 | |
| 05-SS-114-0406 | 12/6/2011 | 4-6 | 4.2 | 0.8 | 3.4 | |
| 05-SS-115-0002 | 12/6/2011 | 0-2 | 3.4 | 0.7 | 2.7 | |
| 05-SS-115-0406 | 12/6/2011 | 4-6 | 2.9 | 0.8 | 2.1 | |
| 05-SS-116-0002 | 12/6/2011 | 0-2 | 4.8 | 0.9 | 3.9 | |
| 05-SS-116-0406 | 12/6/2011 | 4-6 | 4.1 | 1.0 | 3.1 | |
| 05-SS-117-0002 | 12/6/2011 | 0-2 | 4.2 | 0.2 | 4.0 | |
| 05-SS-117-0406 | 12/6/2011 | 4-6 | 3.2 | 1.3 | 1.9 | |
| 05-SS-118-0406 | 12/6/2011 | 4-6 | 5.1 | 1.2 | 3.9 | |
| 05-SS-119-0406 | 12/6/2011 | 4-6 | 5.6 | 1.8 | 3.8 | |
| 05-SS-120-0406 | 12/6/2011 | 4-6 | 3.9 | 1.9 | 2.0 | |
| 05-SS-121-0406 | 12/6/2011 | 4-6 | 6.2 | 2.1 | 4.1 | |
| 05-SS-122-0406 | 3/27/2012 | 4-6 | 4.7 | NM | 4.7 | |
| 05-SS-123-0406 | 3/27/2012 | 4-6 | 6.4 | NM | 6.4 | |
| 05-SS-124-0406 | 3/27/2012 | 4-6 | 5.8 | NM | 5.8 | |
| 05-SS-125-0406 | 3/27/2012 | 4-6 | 4.3 | NM | 4.3 | |
| 05-SS-126-0002 | 3/27/2012 | 0-2 | 4.2 | NM | 4.2 | |
| 05-SS-126-0406 | 3/27/2012 | 4-6 | 4.3 | NM | 4.3 | |
| 05-SS-127-0002 | 3/27/2012 | 0-2 | 2.3 | NM | 2.3 | |
| 05-SS-127-0406 | 3/27/2012 | 4-6 | 5.3 | NM | 5.3 | |
| 05-SS-128-0002 | 3/27/2012 | 0-2 | 3.4 | NM | 3.4 | |
| 05-SS-128-0406 | 3/27/2012 | 4-6 | 4.6 | NM | 4.6 | |
| 05-SS-129-0002 | 3/27/2012 | 0-2 | 2.4 | NM | 2.4 | |
| 05-SS-129-0406 | 3/27/2012 | 4-6 | 2.1 | NM | 2.1 | |
| 05-SS-130-0002 | 3/27/2012 | 0-2 | 2.3 | NM | 2.3 | |
| 05-SS-130-0406 | 3/27/2012 | 4-6 | 3.3 | NM | 3.3 | |
| 05-SS-131-0002 | 3/27/2012 | 0-2 | 5.6 | NM | 5.6 | |
| 05-SS-131-0406 | 3/27/2012 | 4-6 | 6.6 | NM | 6.6 | |

**TABLE 2-1**

**FID OVA RESULTS TABLE**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| Boring No./Soil Sample ID | Date | Depth (ft bls) | FID Reading (ppm) | Corrected Reading (ppm) | Net Reading (ppm) | Comments |
|---|---|---|---|---|---|---|
| 05-SS-132-0002 | 3/27/2012 | 0-2 | 2468.0 | NM | 2468.0 | |
| 05-SS-132-0204 | 3/27/2012 | 2-4 | 1945.0 | NM | 1945.0 | |
| 05-SS-132-0406 | 3/27/2012 | 4-6 | 30.7 | NM | 30.7 | |

Notes:

bls = below land surface
ft = feet
ppm = parts per million
NM = not measured

FID - flame ionization detector
OVA - organic vapor analyzer

Shaded indicates an exceedance of Florida Department of Environmental Protection criteria for contaminated soil (>10ppm)

Shaded and underlined indicates an exceedance of Florida Department of Environmental Protection criteria for excessively contaminated soil (>50ppm)

**TABLE 3-1**

**SUMMARY OF STATIC WATER LEVELS AND GROUNDWATER ELEVATIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| MONITORING WELL ID FROM SITE 4 | TOTAL DEPTH | AQUIFER ZONE | TOP OF CASING ELEVATION | TOP OF CASING ELEVATION 2012# | 1/9/2007 | | 6/11/2007 | | 6/9/2010 | | 4/17/2011 | | 3/13/2012 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | DEPTH TO WATER | GROUNDWATER ELEVATION | DEPTH TO WATER | GROUNDWATER ELEVATION | DEPTH TO WATER | GROUNDWATER ELEVATION | DEPTH TO WATER | GROUNDWATER ELEVATION | DEPTH TO WATER | GROUNDWATER ELEVATION |
| OLFS4-MW01D2 | 129.81 | Deep | 81.44 | NS | 48.78 | 32.66 | 50.47 | 30.97 | 43.79 | 37.65 | 47.81 | 33.63 | NA | NA |
| OLFS4-MW02D | 79.49 | Deep | 81.85 | 70.35 | 48.01 | 33.84 | 49.58 | 32.27 | 42.21 | 39.64 | 46.59 | 35.26 | 48.24 | 22.11 |
| OLFS4-MW03S | 59.02 | Shallow | 82.27 | 70.85 | 46.19 | 36.08 | 46.82 | 35.45 | 37.58 | 44.69 | 41.91 | 40.36 | 46.09 | 24.79 |
| OLFS4-MW04D | 79.03 | Deep | 83.41 | 71.84 | 49.26 | 34.15 | 50.78 | 32.63 | 43.29 | 40.12 | 47.71 | 35.70 | 49.53 | 22.31 |
| OLFS4-MW05S | 55.02 | Shallow | 82.86 | 71.25 | 47.51 | 35.35 | 48.45 | 34.41 | 39.87 | 42.99 | 43.93 | 38.93 | 47.67 | 23.58 |
| OLFS4-MW06S | 55.51 | Shallow | 82.59 | 70.99 | 45.48 | 37.11 | 46.21 | 36.38 | 41.42 | 41.17 | 44.64 | 37.95 | 45.76 | 25.23 |
| OLFS4-MW07S | 54.82 | Shallow | 82.97 | 71.36 | 47.35 | 35.62 | 48.25 | 34.72 | 39.15 | 43.82 | 43.61 | 39.36 | 47.45 | 23.91 |
| OLFS4-MW08S | 55.71 | Shallow | 83.35 | 71.70 | 48.57 | 34.78 | 49.66 | 33.69 | 36.35 | 47.00 | 45.27 | 38.08 | 48.78 | 22.92 |
| OLFS4-MW09S | 51.89 | Shallow | 83.22 | 71.60 | 47.90 | 35.32 | 48.86 | 34.36 | 40.35 | 42.87 | 44.34 | 38.88 | 48.08 | 23.52 |
| OLFS4-MW10D | 84.97 | Deep | 83.30 | NS | 44.28 | 39.02 | 46.20 | 37.10 | 37.65 | 45.65 | 41.75 | 41.55 | NA | NA |
| OLFS4-MW11S | 39.82 | Shallow | 83.50 | 71.99 | 32.73 | 50.77 | 34.84 | 48.66 | 25.54 | 57.96 | 29.77 | 53.73 | 35.65 | 36.34 |
| OLFS4-MW12S | 45.13 | Shallow | 83.50 | 71.95 | 35.53 | 47.97 | 38.02 | 45.48 | 26.85 | 56.65 | 30.77 | 52.73 | 38.10 | 33.85 |
| OLFS4-MW13S | 45.01 | Shallow | 83.22 | 71.75 | 34.18 | 49.04 | 36.78 | 46.44 | 26.10 | 57.08 | 30.11 | 53.11 | 36.88 | 34.87 |
| OLFS4-MW14D | 79.85 | Deep | 81.49 | 70.01 | 47.10 | 34.39 | 48.70 | 32.79 | 41.15 | 40.34 | 45.61 | 35.88 | 47.42 | 22.59 |
| OLFS4-MW15S | 56.65 | Shallow | 82.71 | 71.17 | 48.10 | 34.61 | 49.50 | 33.21 | 40.78 | 41.93 | 42.83 | 39.88 | 48.45 | 22.72 |
| OLFS4-MW16S | 54.70 | Shallow | 83.24 | 71.62 | 48.09 | 35.15 | 49.48 | 33.76 | 39.60 | 43.64 | 41.73 | 41.51 | 48.52 | 23.10 |
| OLFS4-MW17S | 55.26 | Shallow | 83.45 | 71.79 | 45.87 | 37.58 | 47.15 | 36.30 | 33.21 | 50.24 | 37.00 | 46.45 | 46.41 | 25.38 |
| OLFS4-MW18S | 55.00 | Shallow | 82.84 | 70.97 | 42.42 | 40.42 | 43.81 | 39.03 | 30.40 | 52.44 | 36.04 | 46.80 | 42.60 | 28.37 |
| OLFS4-MW19S | 55.70 | Shallow | 83.03 | 71.41 | 47.85 | 35.18 | 49.28 | 33.75 | 40.53 | 42.50 | 43.69 | 39.34 | 48.30 | 23.11 |
| OLFS4-MW20S | 44.68 | Shallow | 83.31 | 71.8 | 40.02 | 43.29 | 42.74 | 40.57 | 28.58 | 54.73 | 32.70 | 50.61 | 42.18 | 29.62 |
| OLFS4-MW21S | 44.79 | Shallow | 83.41 | 71.97 | 40.69 | 42.72 | 43.24 | 40.17 | 29.13 | 54.28 | 33.22 | 50.19 | 42.77 | 29.20 |
| OLFS4-MW22D | 90.39 | Deep | 90.06 | NS | 51.21 | 38.85 | 53.55 | 36.51 | NOT FOUND | | NOT FOUND | | NA | |
| OLFS4-MW23S | 39.87 | Shallow | 90.20 | NS | 25.57 | 64.63 | 27.13 | 63.07 | | | | | | |
| OLFS4-MW24S | 55.55 | Shallow | 82.42 | 70.82 | 48.24 | 34.18 | 49.73 | 32.69 | 42.15 | 40.27 | 45.05 | 37.37 | 48.57 | 22.25 |
| OLFS4-MW25S | 55.21 | Shallow | 82.52 | 70.96 | 46.78 | 35.74 | 47.67 | 34.85 | 38.65 | 43.87 | 43.08 | 39.44 | 46.90 | 24.06 |
| OLFS4-MW26D | 81.37 | Deep | 81.98 | NS | 42.44 | 39.54 | 44.26 | 37.72 | 35.96 | 46.02 | 40.59 | 41.39 | NA | NA |
| OLFS4-MW27S | 54.85 | Shallow | 82.33 | 70.75 | 48.17 | 34.16 | 49.36 | 32.97 | 41.37 | 40.96 | 44.98 | 37.35 | 48.34 | 22.41 |
| OLFS4-MW28S | 45.31 | Shallow | 81.72 | 70.24 | 30.46 | 51.26 | 32.82 | 48.90 | 23.09 | 58.63 | 27.48 | 54.24 | 33.50 | 36.74 |
| OLFS4-MW29D | 79.85 | Deep | 82.21 | 70.7 | 42.61 | 39.60 | 44.61 | 37.60 | 36.41 | 45.80 | 40.94 | 41.27 | 43.34 | 27.36 |
| OLFS4-MW30S | 39.63 | Shallow | 82.51 | 71.01 | 31.76 | 50.75 | 34.14 | 48.37 | 22.95 | 59.56 | 27.74 | 54.77 | 34.07 | 36.94 |
| OLFS4-MW31S | 39.82 | Shallow | 83.14 | 71.59 | 30.96 | 52.18 | 33.80 | 49.34 | 23.94 | 59.20 | 27.10 | 56.04 | 34.56 | 37.03 |
| OLFS4-MW32S | 39.46 | Shallow | 82.55 | 71.02 | 30.23 | 52.32 | 32.21 | 50.34 | 23.54 | 59.01 | 26.74 | 55.81 | 31.93 | 39.09 |
| OLFS4-MW33S | 39.75 | Shallow | 82.71 | 71.22 | 29.31 | 53.40 | 31.84 | 50.87 | 22.19 | 60.52 | 27.10 | 55.61 | 32.20 | 39.02 |
| OLFS4-MW34S | 39.60 | Shallow | 83.27 | 71.33 | 31.41 | 51.86 | 34.14 | 49.13 | 24.45 | 58.82 | 29.68 | 53.59 | 34.72 | 36.61 |
| OLFS4-MW35S | 36.12 | Shallow | 82.39 | 70.86 | 29.32 | 53.07 | 30.93 | 51.46 | 21.42 | 60.97 | 27.17 | 55.22 | 30.61 | 40.25 |
| OLFS4-MW36S | 39.02 | Shallow | 82.52 | 71.01 | 29.85 | 52.67 | 32.44 | 50.08 | 23.52 | 59.00 | 27.33 | 55.19 | 33.15 | 37.86 |
| OLFS4-MW37S | 64.51 | Shallow | 82.68 | 72.04 | NOT MEASURED | | 50.84 | 31.68 | NOT ACCESSIBLE | | 46.60 | 35.90 | 49.73 | 22.31 |
| OLFS4-MW38S | 65.09 | Shallow | 82.50 | 70.62 | | | 48.72 | 33.80 | 40.91 | 46.61 | 42.93 | 39.57 | 47.55 | 23.07 |
| OLFS4-MW39S | 54.89 | Shallow | 82.02 | NA | | | 46.49 | 36.03 | WELL ABANDONED | | WELL ABANDONED | | WELL ABANDONED | |
| OLFS4-MW40S | 64.86 | Shallow | 82.91 | 71.22 | | | 48.79 | 33.73 | 40.56 | 41.96 | 43.00 | 39.91 | 47.22 | 24.00 |
| OLFS4-MW41S | 64.95 | Shallow | 82.95 | 71.05 | | | 43.05 | 39.47 | 33.16 | 49.36 | 38.99 | 43.96 | 41.65 | 29.40 |
| OLFS4-MW42S | 46.53 | Shallow | 84.01 | NS | | | 30.02 | 52.50 | 22.65 | 59.87 | 29.88 | 54.13 | NA | NA |
| OLFS4-MW43S | 51.32 | Shallow | 82.09 | 70.32 | | | 33.25 | 49.27 | 23.65 | 58.87 | 27.30 | 54.79 | 32.36 | 37.96 |
| OLFS4-MW44S | 54.82 | Shallow | 81.37 | 69.53 | | | 32.66 | 49.86 | 23.05 | 59.47 | 25.98 | 55.39 | 31.75 | 37.78 |
| OLFS4-MW45S | 35.11 | Shallow | 81.42 | 69.50 | | | 33.97 | 48.55 | 24.92 | 57.60 | 28.08 | 53.33 | 32.04 | 37.46 |
| OLFS4-MW46S | 32.87 | Shallow | 80.81 | 68.94 | | | 32.73 | 49.79 | 23.27 | 59.25 | 26.39 | 56.97 | 30.90 | 38.04 |
| 2406-MW19S | 54.33 | Shallow | 92.55 | 71.43 | | | 44.83 | 37.69 | WELLS IN THE AREA OF BUILDING 2406 WERE NOT MEASURED | | NOT MEASURED | | 44.73 | 26.70 |
| 2406-DMW25 | 79.73 | Deep | 83.28 | 71.05 | | | 49.41 | 33.11 | | | 46.28 | 37.00 | 48.18 | 22.87 |
| 2406-MW26 | 64.80 | Shallow | 92.33 | 71.10 | | | 47.62 | 34.90 | | | NOT MEASURED | | 46.91 | 24.19 |
| 2406-DMW27 | 65.25 | Shallow | 91.55 | 70.38 | | | 44.39 | 38.13 | | | 46.26 | 44.44 | 41.62 | 28.76 |
| 2406-DMW28 | 78.61 | Deep | 90.70 | 69.48 | | | 48.22 | 34.30 | | | 38.12 | 49.09 | 46.92 | 22.56 |
| 2406-DMW29 | 78.74 | Deep | 81.68 | 60.54 | | | 41.77 | 40.75 | | | 30.73* | 42.53 | 40.12 | 20.42 |
| 2406-DMW30 | 79.85 | Deep | 82.26 | 61.07 | | | 42.30 | 40.22 | | | NOT MEASURED | | 40.79 | 20.28 |
| 2406-MW46 | 51.93 | Shallow | 84.01 | 70.09 | | | 46.75 | 35.77 | | | NOT MEASURED | | 45.90 | 24.19 |
| 2406-MW47S | 56.44 | Shallow | 82.98 | 71.50 | | | 49.34 | 33.18 | | | NOT MEASURED | | 48.59 | 22.91 |

Notes:
Top-of-casing elevations in feet above mean sea level
Depths in feet below top-of-casing
*=Water level collected 5/25/11
#=TOCs applied to 2012 ground water elevations
NA=Not applicable
NS=Not surveyed

**TABLE 3-3**

**VERTICAL GRADIENT DATA FROM SITE 4**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**

| | | | | 1/9/2007 | | 6/11/2007 | | 6/10/2011 | | 4/11/2011 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| WELL PAIRS FROM SITE 4 | APPROXIMATE TOTAL WELL DEPTH | APPROXIMATE SCREENED INTERVAL (feet) | TOP OF CASING ELEVATION | DEPTH TO WATER | GROUNDWATER ELEVATION | DEPTH TO WATER | GROUNDWATER ELEVATION | DEPTH TO WATER | GROUNDWATER ELEVATION | DEPTH TO WATER | GROUNDWATER ELEVATION |
| OLFS4-MW03S | 60 | 50-60 | 82.27 | 46.19 | 36.08 | 46.82 | 35.45 | 37.58 | 44.69 | 41.91 | 40.36 |
| OLFS4-MW02D | 80 | 75-80 | 81.85 | 48.01 | 33.84 | 49.58 | 32.37 | 42.21 | 39.64 | 46.59 | 35.26 |
| SCREEN SEPARATION (bottom to bottom) | | 20 | VERTICAL GRADIENT | | -0.112 | | -0.154 | | -0.253 | | -0.255 |
| OLFS4-MW09S | 52 | 37-52 | 83.22 | 47.90 | 35.32 | 48.86 | 34.36 | 40.35 | 42.87 | 44.34 | 38.88 |
| OLFS4-MW04D | 80 | 75-80 | 83.41 | 49.26 | 34.15 | 50.78 | 32.63 | 43.29 | 40.12 | 47.71 | 35.70 |
| SCREEN SEPARATION (bottom to bottom) | | 28 | VERTICAL GRADIENT | | -0.042 | | -0.062 | | -0.098 | | -0.114 |
| OLFS4-MW28S | 45 | 30-45 | 81.72 | 30.46 | 51.26 | 23.82 | 48.90 | 23.09 | 58.63 | 27.48 | 54.24 |
| OLFS4-MW26D | 81 | 76-81 | 81.98 | 42.44 | 39.54 | 44.26 | 37.72 | 35.96 | 46.02 | 40.59 | 41.39 |
| SCREEN SEPARATION (bottom to bottom) | | 36 | VERTICAL GRADIENT | | -0.326 | | -0.311 | | -0.350 | | -0.357 |
| OLFS4-MW32S | 40 | 25-40 | 82.21 | 30.23 | 51.98 | 32.21 | 50.00 | 23.54 | 59.01 | 26.74 | 55.81 |
| OLFS4-MW29D | 80 | 75-80 | 82.55 | 42.61 | 39.94 | 44.61 | 37.94 | 36.41 | 45.80 | 40.94 | 41.27 |
| SCREEN SEPARATION (bottom to bottom) | | 40 | VERTICAL GRADIENT | | -0.301 | | -0.302 | | -0.330 | | -0.330 |

Notes:
Elevations are in feet above mean sea leve
Depths in feet below top-of-casing
Negative gradients are downward, positive gradients are upwarc

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-001 | 05-SS-002 | 05-SS-003 | 05-SS-004 | 05-SS-005 | 05-SS-005 | 05-SS-006 | 05-SS-007 | 05-SS-008 | 05-SS-009 | 05-SS-010 | 05-SS-011 | 05-SS-012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 |
| SAMPLE ID | | 05-SS-001-0204 | 05-SS-002-0204 | 05-SS-003-0204 | 05-SS-004-0204 | 05-SS-005-0204 | 05-SS-005-0204-D | 05-SS-006-0204 | 05-SS-007-0204 | 05-SS-008-0204 | 05-SS-009-0204 | 05-SS-010-0204 | 05-SS-011-0204 | 05-SS-012-0204 |
| SAMPLE DATE | | 3/22/2011 | 3/22/2011 | 3/22/2011 | 3/22/2011 | 3/23/2011 | 3/23/2011 | 3/23/2011 | 3/23/2011 | 3/23/2011 | 3/23/2011 | 3/23/2011 | 3/23/2011 | 3/23/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.4 U | 1.06 U | 1.18 U | 1.48 U | 1.43 U | 1.5 U | 1.49 U | 1.31 U | 1.41 U | 1.38 U | 1.36 U | 1.3 U | 1.42 U |
| ETHYLBENZENE | 600[2] | 0.843 U | 0.637 U | 0.709 U | 0.891 U | 0.855 U | 0.903 U | 0.895 U | 0.788 U | 0.848 U | 0.83 U | 0.816 U | 0.777 U | 0.855 U |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.4 U | 1.06 U | 1.18 U | 1.48 U | 1.43 U | 1.5 U | 1.49 U | 1.31 U | 1.41 U | 1.38 U | 1.36 U | 1.3 U | 1.42 U |
| TOLUENE | 500[2] | 0.967 U | 0.731 U | 0.813 U | 1.02 U | 0.981 U | 1.03 U | 1.03 U | 0.903 U | 0.972 U | 0.952 U | 0.935 U | 0.891 U | 0.98 U |
| TOTAL XYLENES | 200[2] | 4.21 U | 3.19 U | 3.55 U | 4.45 U | 4.28 U | 4.51 U | 4.47 U | 3.94 U | 4.24 U | 4.15 U | 4.08 U | 3.89 U | 4.27 U |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| ACENAPHTHENE | 2,100[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| ACENAPHTHYLENE | 27,000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| ANTHRACENE | 2500000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| BENZO(A)PYRENE | 100[1] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| CHRYSENE | 77,000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| FLUORANTHENE | 1,200,000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| FLUORENE | 160,000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| NAPHTHALENE | 12,000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| PHENANTHRENE | 250,000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 2.59 J | 1.71 U |
| PYRENE | 880,000[2] | 1.74 U | 1.76 U | 1.78 U | 1.79 U | 1.83 U | 1.91 U | 1.84 U | 1.83 U | 1.87 U | 1.87 U | 1.8 U | 1.75 U | 1.71 U |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 11.6 U | 11.4 U | 12.1 U | 11.9 U | 12 U | 13 U | 12.1 U | 11.8 U | 12.4 U | 12 U | 11.9 U | 11.8 U | 11.5 U |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-013 | 05-SS-013 | 05-SS-014 | 05-SS-015 | 05-SS-016 | 05-SS-017 | 05-SS-018 | 05-SS-019 | 05-SS-020 | 05-SS-021 | 05-SS-022 | 05-SS-023 | 05-SS-024 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 15-20 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 |
| SAMPLE ID | | 05-SS-013-0204 | 05-SS-013-0204-D | 05-SS-014-0204 | 05-SS-015-0204 | 05-SS-016-0204 | 05-SS-017-0204 | 05-SS-018-1520 | 05-SS-019-0204 | 05-SS-020-0204 | 05-SS-021-0204 | 05-SS-022-0204 | 05-SS-023-0204 | 05-SS-024-0204 |
| SAMPLE DATE | | 3/24/2011 | 3/24/2011 | 3/24/2011 | 3/24/2011 | 3/24/2011 | 3/24/2011 | 3/24/2011 | 3/24/2011 | 3/25/2011 | 3/25/2011 | 3/25/2011 | 3/25/2011 | 3/25/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.39 U | 1.54 U | 1.46 U | 1.7 U | 1.46 U | 1.53 U | 1.91 U | 1.29 U | 1.69 U | 1.36 U | 1.62 U | 1.46 U | 1.54 U |
| ETHYLBENZENE | 600[2] | 0.834 U | 0.925 U | 0.876 U | 1.02 U | 0.877 U | 0.917 U | 1.15 U | 0.772 U | 1.01 U | 0.817 U | 0.972 U | 0.873 U | 0.923 U |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.39 U | 1.54 U | 1.46 U | 1.7 U | 1.46 U | 1.53 U | 1.91 U | 1.29 U | 1.69 U | 1.36 U | 1.62 U | 1.46 U | 1.54 U |
| TOLUENE | 500[2] | 0.956 U | 1.06 U | 1 U | 1.17 U | 1.01 U | 1.05 U | 1.31 U | 0.885 U | 1.16 U | 0.937 U | 1.11 U | 1 U | 1.06 U |
| TOTAL XYLENES | 200[2] | 4.17 U | 4.63 U | 4.38 U | 5.1 U | 4.39 U | 4.59 U | 5.73 U | 3.86 U | 5.06 U | 4.09 U | 4.86 U | 4.37 U | 4.62 U |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| ACENAPHTHENE | 2,100[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| ACENAPHTHYLENE | 27,000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| ANTHRACENE | 2500000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| BENZO(A)PYRENE | 100[1] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| CHRYSENE | 77,000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| FLUORANTHENE | 1,200,000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| FLUORENE | 160,000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| NAPHTHALENE | 12,000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| PHENANTHRENE | 250,000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| PYRENE | 880,000[2] | 1.76 U | 1.93 U | 1.78 U | 1.92 U | 1.78 U | 1.79 U | 2.09 U | 1.73 U | 1.86 U | 1.75 U | 2 U | 1.81 U | 1.74 U |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 11.5 U | 12.6 U | 11.4 U | 12.7 U | 11.4 U | 11.4 U | 13.6 U | 20.1 J | 18 J | 16.8 J | 13.2 U | 12.3 U | 11.8 U |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-025 | 05-SS-026 | 05-SS-027 | 05-SS-028 | 05-SS-029 | 05-SS-030 | 05-SS-030 | 05-SS-031 | 05-SS-032 | 05-SS-033 | 05-SS-034 | 05-SS-035 | 05-SS-036 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 15-20 | 15-20 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 |
| SAMPLE ID | | 05-SS-025-0204 | 05-SS-026-0204 | 05-SS-027-0204 | 05-SS-028-0204 | 05-SS-029-0204 | 05-SS-030-1520 | 05-SS-030-1520-D | 05-SS-031-0204 | 05-SS-032-0204 | 05-SS-033-0204 | 05-SS-034-0204 | 05-SS-035-0204 | 05-SS-036-0204 |
| SAMPLE DATE | | 3/25/2011 | 3/25/2011 | 3/28/2011 | 3/28/2011 | 4/10/2011 | 3/28/2011 | 3/28/2011 | 3/28/2011 | 3/28/2011 | 3/28/2011 | 3/28/2011 | 3/28/2011 | 3/28/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.47 U | 1.56 U | 1.6 U | 1.57 U | 1.28 U | 1.99 U | 1.58 U | 2.14 U | 1.6 U | 1.72 U | 1.75 U | 1.65 U | 1.67 U |
| ETHYLBENZENE | 600[2] | 0.88 U | 0.935 U | 0.96 U | 0.944 U | 1.28 U | 1.2 U | 0.949 U | 1.28 U | 0.958 U | 1.03 U | 1.05 U | 0.991 U | 1 U |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.47 U | 1.56 U | 1.6 U | 1.57 U | 1.28 U | 1.99 U | 1.58 U | 2.14 U | 1.6 U | 1.72 U | 1.75 U | 1.65 U | 1.67 U |
| TOLUENE | 500[2] | 1.01 U | 1.07 U | 1.1 U | 1.08 U | 1.28 U | 1.37 U | 1.09 U | 1.47 U | 1.1 U | 1.18 U | 1.2 U | 1.14 U | 1.15 U |
| TOTAL XYLENES | 200[2] | 4.4 U | 4.67 U | 4.8 U | 4.72 U | 3.85 U | 5.98 U | 4.75 U | 6.41 U | 4.79 U | 5.16 U | 5.25 U | 4.95 U | 5.02 U |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.96 J | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| ACENAPHTHENE | 2,100[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| ACENAPHTHYLENE | 27,000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| ANTHRACENE | 2500000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| BENZO(A)PYRENE | 100[1] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| CHRYSENE | 77,000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 2.2 J | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| FLUORANTHENE | 1,200,000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 2.59 J | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| FLUORENE | 160,000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.74 J | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| NAPHTHALENE | 12,000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| PHENANTHRENE | 250,000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 4.92 J | 3.04 J | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| PYRENE | 880,000[2] | 1.79 U | 1.74 U | 1.84 U | 1.78 U | 1.72 U | 1.93 U | 1.89 U | 1.85 U | 1.8 U | 1.78 U | 1.85 U | 1.88 U | 1.96 U |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | 3.42 | NA | NA | NA | NA | NA | NA | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 11.9 U | 25.3 J | 12.2 U | 11.8 U | 11.4 U | 58.4 | 33.3 J | 12.3 U | 12.2 U | 11.9 U | 12.8 U | 13.1 U | 13.1 U |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-037 | 05-SS-037 | 05-SS-038 | 05-SS-039 | 05-SS-040 | 05-SS-041 | 05-SS-042 | 05-SS-043 | 05-SS-044 | 05-SS-045 | 05-SS-045 | 05-SS-046 | 05-SS-047 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 |
| SAMPLE ID | | 05-SS-037-0204 | 05-SS-037-0204-D | 05-SS-038-0204 | 05-SS-039-0204 | 05-SS-040-0204 | 05-SS-041-0204 | 05-SS-042-0204 | 05-SS-043-0204 | 05-SS-044-0204 | 05-SS-045-0204 | 05-SS-045-0204-D | 05-SS-046-0204 | 05-SS-047-0204 |
| SAMPLE DATE | | 4/6/2011 | 4/6/2011 | 4/6/2011 | 4/6/2011 | 4/6/2011 | 4/6/2011 | 4/6/2011 | 4/6/2011 | 4/6/2011 | 4/8/2011 | 4/8/2011 | 4/8/2011 | 4/8/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.29 U | 1.35 U | 1.63 U | 1.45 U | 1.45 U | 1.39 U | 1.34 U | 1.29 U | 1.35 U | 1.53 U | 1.4 U | 1.51 U | 1.64 U |
| ETHYLBENZENE | 600[2] | 0.77 U | 0.81 U | 0.97 U | 0.87 U | 0.87 U | 0.83 U | 0.80 U | 0.77 U | 0.80 U | 0.92 U | 0.84 U | 0.90 U | 0.98 U |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.29 U | 1.35 U | 1.63 U | 1.45 U | 1.45 U | 1.39 U | 1.34 U | 1.29 U | 1.35 U | 1.53 U | 1.4 U | 1.51 U | 1.64 U |
| TOLUENE | 500[2] | 0.88 U | 0.93 U | 1.12 U | 0.99 U | 0.99 U | 0.95 U | 0.92 U | 0.88 U | 0.92 U | 1.05 U | 0.96 U | 1.04 U | 1.13 U |
| TOTAL XYLENES | 200[2] | 3.88 U | 4.06 U | 4.9 U | 4.35 U | 4.35 U | 4.18 U | 4.03 U | 3.87 U | 4.04 U | 4.6 U | 4.21 U | 4.54 U | 4.91 U |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| ACENAPHTHENE | 2,100[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| ACENAPHTHYLENE | 27,000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| ANTHRACENE | 2500000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| BENZO(A)PYRENE | 100[1] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.86 U | 2.05 J | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| CHRYSENE | 77,000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| FLUORANTHENE | 1,200,000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| FLUORENE | 160,000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| NAPHTHALENE | 12,000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| PHENANTHRENE | 250,000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| PYRENE | 880,000[2] | 1.86 U | 1.92 U | 1.73 U | 1.75 U | 1.75 U | 1.72 U | 1.79 U | 1.91 U | 1.92 U | 1.76 U | 1.79 U | 1.77 U | 1.94 U |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 12.1 U | 12.7 U | 11.9 U | 11.7 U | 11.7 U | 11.5 U | 11.7 U | 12.9 U | 12.8 U | 11.5 U | 11.5 U | 11.5 U | 12.5 U |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-048 | 05-SS-049 | 05-SS-050 | 05-SS-051 | 05-SS-052 | 05-SS-053 | 05-SS-054 | 05-SS-055 | 05-SS-056 | 05-SS-057 | 05-SS-058 | 05-SS-059 | 05-SS-060 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 0-2 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 |
| SAMPLE ID | | 05-SS-048-0204 | 05-SS-049-0204 | 05-SS-050-0204 | 05-SS-051-0204 | 05-SS-052-0204 | 05-SS-053-0002 | 05-SS-054-0204 | 05-SS-055-0204 | 05-SS-056-0204 | 05-SS-057-0204 | 05-SS-058-0204 | 05-SS-059-0204 | 05-SS-060-0204 |
| SAMPLE DATE | | 4/8/2011 | 4/8/2011 | 4/8/2011 | 4/10/2011 | 4/10/2011 | 4/10/2011 | 4/10/2011 | 4/5/2011 | 4/5/2011 | 4/5/2011 | 4/5/2011 | 4/5/2011 | 4/5/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.49 U | 1.82 U | 1.42 U | 1.58 U | 1.52 U | 1.29 U | 1.37 U | 1.52 U | 1.49 U | 1.49 U | 1.5 U | 1.39 U | 1.43 U |
| ETHYLBENZENE | 600[2] | 0.89 U | 1.09 U | 0.85 U | 1.58 U | 1.52 U | 1.29 U | 1.37 U | 0.91 U | 0.89 U | 0.89 U | 0.90 U | 0.83 U | 0.85 U |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.49 U | 1.82 U | 1.42 U | 1.58 U | 1.52 U | 1.29 U | 1.37 U | 1.52 U | 1.49 U | 1.49 U | 1.5 U | 1.39 U | 1.43 U |
| TOLUENE | 500[2] | 1.02 U | 1.25 U | 0.97 U | 1.58 U | 1.52 U | 1.29 U | 1.37 U | 1.05 U | 1.03 U | 1.03 U | 1.03 U | 0.95 U | 0.98 U |
| TOTAL XYLENES | 200[2] | 4.46 U | 5.45 U | 4.27 U | 4.75 U | 4.57 U | 3.87 U | 4.12 U | 4.57 U | 4.48 U | 4.47 U | 4.5 U | 4.17 U | 4.29 U |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 331 | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 353 | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| ACENAPHTHENE | 2,100[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| ACENAPHTHYLENE | 27,000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| ANTHRACENE | 2500000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 15.7 | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| BENZO(A)PYRENE | 100[1] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 2.98 J |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| CHRYSENE | 77,000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 3.19 J |
| FLUORANTHENE | 1,200,000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| FLUORENE | 160,000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 2.04 J | 1.82 U | 2.29 J |
| NAPHTHALENE | 12,000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 62.6 | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| PHENANTHRENE | 250,000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| PYRENE | 880,000[2] | 1.8 U | 1.91 U | 1.85 U | 1.94 U | 1.91 U | 1.91 U | 1.84 U | 1.86 U | 1.75 U | 1.84 U | 1.75 U | 1.82 U | 1.74 U |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | NA | NA | NA | 3.63 | NA | NA | 2.14 | NA | 4.47 |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 11.6 U | 12.6 U | 11.8 U | 12.8 U | 12.9 U | 694 | 12 U | 18.8 J | 11.9 U | 12.4 U | 44.6 J | 12.1 U | 16.8 J |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-061 | 05-SS-062 | 05-SS-062 | 05-SS-063 | 05-SS-064 | 05-SS-065 | 05-SS-066 | 05-SS-067 | 05-SS-067 | 05-SS-068 | 05-SS-069 | 05-SS-070 | 05-SS-071 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 |
| SAMPLE ID | | 05-SS-061-0204 | 05-SS-062-0204 | 05-SS-062-0204-D | 05-SS-063-0204 | 05-SS-064-0204 | 05-SS-065-0204 | 05-SS-066-0406 | 05-SS-067-0406 | 05-SS-067-0406-D | 05-SS-068-0406 | 05-SS-069-0406 | 05-SS-070-0406 | 05-SS-071-0406 |
| SAMPLE DATE | | 4/5/2011 | 4/5/2011 | 4/5/2011 | 4/4/2011 | 4/4/2011 | 4/4/2011 | 3/28/2011 | 4/11/2011 | 4/11/2011 | 3/28/2011 | 3/28/2011 | 3/29/2011 | 4/11/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.44 U | 1.27 U | 1.31 U | 1.02 U | 1.46 U | 1.56 U | 1.59 U | 1.42 U | 1.46 U | 1.47 U | 1.48 U | 1.58 U | 1.63 U |
| ETHYLBENZENE | 600[2] | 0.86 U | 0.75 U | 0.78 U | 0.61 U | 0.87 U | 0.93 U | 0.955 U | 0.85 U | 0.87 U | 0.881 U | 0.887 U | 0.95 U | 0.97 U |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.44 U | 1.27 U | 1.31 U | 1.02 U | 1.46 U | 1.56 U | 1.59 U | 1.42 U | 1.46 U | 1.47 U | 1.48 U | 1.58 U | 1.63 U |
| TOLUENE | 500[2] | 0.99 U | 0.87 U | 0.90 U | 0.70 U | 1.01 U | 1.07 U | 1.1 U | 0.97 U | 1.01 U | 1.01 U | 1.02 U | 1.09 U | 1.12 U |
| TOTAL XYLENES | 200[2] | 4.33 U | 3.8 U | 3.93 U | 3.07 U | 4.39 U | 4.69 U | 4.78 U | 4.26 U | 4.39 U | 4.41 U | 4.43 U | 4.75 U | 4.88 U |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 1.79 U | 1.81 U | 1.81 U | 1.91 U | 1.79 U | 1.71 U | 1.93 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 1.79 U | 1.81 U | 1.81 U | 1.91 U | 1.79 U | 1.71 U | 1.93 U |
| ACENAPHTHENE | 2,100[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 1.79 U | 1.81 U | 1.81 U | 1.91 U | 1.79 U | 1.71 U | 1.93 U |
| ACENAPHTHYLENE | 27,000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 1.79 U | 1.81 U | 1.81 U | 1.91 U | 1.79 U | 1.71 U | 1.93 U |
| ANTHRACENE | 2500000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 1.79 U | 1.81 U | 1.81 U | 15.5 | 1.79 U | 1.71 U | 1.93 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 17.2 | 1.81 U | 1.81 U | 325 | 1.79 U | 1.71 U | 1.93 U |
| BENZO(A)PYRENE | 100[1] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 10.1 J | 1.81 U | 1.81 U | 289 | 1.79 U | 1.71 U | 1.93 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 7.06 J | 1.81 U | 1.81 U | 506 | 1.79 U | 1.71 U | 1.93 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 3.78 J | 1.81 U | 1.81 U | 176 | 1.79 U | 1.71 U | 1.93 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 2.59 J | 1.81 U | 1.81 U | 221 | 1.79 U | 1.71 U | 1.93 U |
| CHRYSENE | 77,000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 4.68 J | 1.81 U | 1.81 U | 387 | 1.79 U | 1.71 U | 1.93 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 1.79 U | 1.81 U | 1.81 U | 58 | 1.79 U | 1.71 U | 1.93 U |
| FLUORANTHENE | 1,200,000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 6.42 J | 1.81 U | 1.81 U | 439 | 1.79 U | 1.71 U | 1.93 U |
| FLUORENE | 160,000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 1.79 U | 1.81 U | 1.81 U | 1.91 U | 1.79 U | 1.71 U | 1.93 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 2.97 J | 1.81 U | 1.81 U | 151 | 1.79 U | 1.71 U | 1.93 U |
| NAPHTHALENE | 12,000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 1.79 U | 1.81 U | 1.81 U | 2.66 J | 1.79 U | 1.71 U | 1.93 U |
| PHENANTHRENE | 250,000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 2.29 J | 1.81 U | 1.81 U | 45.9 | 1.79 U | 1.71 U | 1.93 U |
| PYRENE | 880,000[2] | 1.8 U | 1.83 U | 1.82 U | 1.76 U | 1.79 U | 1.83 U | 5.77 J | 1.81 U | 1.81 U | 424 | 1.79 U | 1.71 U | 1.93 U |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | NA | NA | 13.7 | NA | NA | 448 | NA | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 12 U | 12 U | 11.9 U | 11.8 U | 11.4 U | 11.8 U | 11.8 U | 11.9 U | 11.8 U | 50.6 J | 11.6 U | 11.2 U | 13.1 U |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-072 | 05-SS-073 | 05-SS-073 | 05-SS-074 | 05-SS-075 | 05-SS-076 | 05-SS-077 | 05-SS-078 | 05-SS-079 | 05-SS-080 | 05-SS-081 | 05-SS-082 | 05-SS-083 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 |
| SAMPLE ID | | 05-SS-072-0406 | 05-SS-073-0406 | 05-SS-073-0406-D | 05-SS-074-0406 | 05-SS-075-0406 | 05-SS-076-0406 | 05-SS-077-0406 | 05-SS-078-0406 | 05-SS-079-0406 | 05-SS-080-0406 | 05-SS-081-0406 | 05-SS-082-0406 | 05-SS-083-0406 |
| SAMPLE DATE | | 4/11/2011 | 3/29/2011 | 3/29/2011 | 3/29/2011 | 4/11/2011 | 4/11/2011 | 4/11/2011 | 3/29/2011 | 3/29/2011 | 3/29/2011 | 3/29/2011 | 3/29/2011 | 3/29/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.46 U | 1.64 U | 1.51 U | 1.37 U | 1.49 U | 1.32 U | 1.38 U | 1.53 U | 1.54 U | 1.6 U | 1.62 U | 1.54 U | 1.73 U |
| ETHYLBENZENE | 600[2] | 0.87 U | 0.983 U | 0.904 U | 0.819 U | 0.89 U | 0.78 U | 0.82 U | 0.919 U | 0.922 U | 0.959 U | 0.973 U | 0.926 U | 1.04 U |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.46 U | 1.64 U | 1.51 U | 1.37 U | 1.49 U | 1.32 U | 1.38 U | 1.53 U | 1.54 U | 1.6 U | 1.62 U | 1.54 U | 1.73 U |
| TOLUENE | 500[2] | 1 U | 1.13 U | 1.04 U | 0.939 U | 1.02 U | 0.90 U | 0.94 U | 1.05 U | 1.06 U | 1.1 U | 1.12 U | 1.06 U | 1.19 U |
| TOTAL XYLENES | 200[2] | 4.37 U | 4.92 U | 4.52 U | 4.1 U | 4.46 U | 3.95 U | 4.13 U | 4.6 U | 4.61 U | 4.79 U | 4.86 U | 4.63 U | 5.2 U |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 1.95 U | 1.73 U | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 2.2 J | 1.73 U | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| ACENAPHTHENE | 2,100[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 2.86 J | 1.73 U | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| ACENAPHTHYLENE | 27,000[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 29.8 | 10.4 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| ANTHRACENE | 2500000[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 36.1 | 2.26 J | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 115 | 21.4 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| BENZO(A)PYRENE | 100[1] | 6.74 J | 1.74 U | 1.76 U | 1.79 U | 106 | 38.7 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 3.91 J | 1.74 U | 1.76 U | 1.79 U | 148 | 41.2 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 2.07 J |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 3.3 J | 1.74 U | 1.76 U | 1.79 U | 68.4 | 25.4 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | 2.03 J | 1.74 U | 1.76 U | 1.79 U | 50.1 | 18 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| CHRYSENE | 77,000[2] | 2.68 J | 1.74 U | 1.76 U | 1.79 U | 112 | 24.5 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 21.2 | 7.36 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| FLUORANTHENE | 1,200,000[2] | 2.13 J | 1.74 U | 1.76 U | 1.79 U | 267 | 21.4 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 3.89 J |
| FLUORENE | 160,000[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 21.6 | 1.73 U | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 2.36 J | 1.74 U | 1.76 U | 1.79 U | 60.4 | 20.8 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| NAPHTHALENE | 12,000[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 3.55 J | 1.73 U | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 1.78 U |
| PHENANTHRENE | 250,000[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 156 | 2.6 J | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 3.35 J |
| PYRENE | 880,000[2] | 1.81 U | 1.74 U | 1.76 U | 1.79 U | 192 | 25.8 | 1.77 U | 1.75 U | 1.89 U | 1.72 U | 1.8 U | 1.8 U | 2.82 J |
| B(a)P TEQ | 100[1] | 8.39 | NA | NA | NA | 160 | 54.60 | NA | NA | NA | NA | NA | NA | 2.17 |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 12.5 U | 11.1 U | 11.8 U | 12.4 U | 12.7 U | 11.9 U | 11.5 U | 11.5 U | 12.2 U | 11.1 U | 11.7 U | 11.6 U | 12 U |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-084 | 05-SS-085 | 05-SS-086 | 05-SS-086 | 05-SS-087 | 05-SS-088 | 05-SS-089 | 05-SS-090 | 05-SS-091 | 05-SS-091 | 05-SS-092 | 05-SS-093 | 05-SS-094 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 | 2-4 |
| SAMPLE ID | | 05-SS-084-0406 | 05-SS-085-0406 | 05-SS-086-0406 | 05-SS-086-0406-D | 05-SS-087-0406 | 05-SS-088-0406 | 05-SS-089-0406 | 05-SS-090-0204 | 05-SS-091-0204 | 05-SS-091-0204-D | 05-SS-092-0204 | 05-SS-093-0204 | 05-SS-094-0204 |
| SAMPLE DATE | | 3/29/2011 | 3/29/2011 | 3/29/2011 | 3/29/2011 | 3/29/2011 | 4/10/2011 | 4/10/2011 | 4/10/2011 | 4/11/2011 | 4/11/2011 | 4/11/2011 | 4/11/2011 | 4/11/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.66 U | 1.97 U | 1.49 U | 1.68 U | 1.5 U | 1.37 U | 1.3 U | 1.26 U | 1.13 U | 1.42 U | 1.29 U | 1.57 U | 1.32 U |
| ETHYLBENZENE | 600[2] | 0.996 U | 1.18 U | 0.897 U | 1.01 U | 0.90 U | 1.37 U | 1.3 U | 1.26 U | 0.68 U | 0.84 U | 0.77 U | 0.94 U | 0.79 U |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.66 U | 1.97 U | 1.49 U | 1.68 U | 1.5 U | 1.37 U | 1.3 U | 1.26 U | 1.13 U | 1.42 U | 1.29 U | 1.57 U | 1.32 U |
| TOLUENE | 500[2] | 1.14 U | 1.35 U | 1.03 U | 1.16 U | 1.03 U | 1.37 U | 1.3 U | 1.26 U | 0.78 U | 0.97 U | 0.88 U | 1.08 U | 0.90 U |
| TOTAL XYLENES | 200[2] | 4.98 U | 5.9 U | 4.48 U | 5.05 U | 4.5 U | 4.11 U | 3.9 U | 3.77 U | 3.4 U | 4.25 U | 3.87 U | 4.72 U | 3.96 U |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 7.5 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 1.68 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 8.92 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 1.68 U |
| ACENAPHTHENE | 2,100[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 46.6 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 1.68 U |
| ACENAPHTHYLENE | 27,000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 1.8 U | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 1.68 U |
| ANTHRACENE | 2500000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 59.6 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 1.68 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 108 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 9.09 |
| BENZO(A)PYRENE | 100[1] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 87.7 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 15 |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 107 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 15.4 |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 44.6 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 7.25 |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 45 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 8.13 |
| CHRYSENE | 77,000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 102 | 1.75 U | 1.98 J | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 13.8 |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 15.9 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 1.68 U |
| FLUORANTHENE | 1,200,000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 245 | 1.75 U | 2.3 J | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 19.2 |
| FLUORENE | 160,000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 26.9 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 1.68 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 39.2 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 6.2 J |
| NAPHTHALENE | 12,000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 21.4 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 1.68 U |
| PHENANTHRENE | 250,000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 197 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 7.79 |
| PYRENE | 880,000[2] | 1.76 U | 1.98 U | 1.87 U | 1.8 U | 1.78 U | 191 | 1.75 U | 1.73 U | 1.82 U | 1.91 U | 1.77 U | 1.73 U | 16.4 |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | NA | 130 | NA | 2.00 | NA | NA | NA | NA | 19.00 |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 11.9 U | 12.5 U | 12.1 U | 12 U | 11.4 UJ | 34 J | 19.8 J | 11.7 U | 15.8 J | 12.7 U | 11.9 U | 11.6 U | 11.2 U |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-095 | 05-SS-096 | 05-SS-097 | 05-SS-098 | 05-SS-099 | 05-SS-100 | 05-SS-100 | 05-SS-100 | 05-SS-100 | 05-SS-101 | 05-SS-101 | 05-SS-101 | 05-SS-102 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 2-4 | 2-4 | 2-4 | 2-4 | 0-2 | 0-2 | 0-2 | 2-4 | 4-6 | 0-2 | 2-4 | 4-6 | 0-2 |
| SAMPLE ID | | 05-SS-095-0204 | 05-SS-096-0204 | 05-SS-097-0204 | 05-SS-098-0204 | 05-SS-099-0002 | 05-SS-100-0002 | 05-SS-100-0002-D | 05-SS-100-0204 | 05-SS-100-0406 | 05-SS-101-0002 | 05-SS-101-0204 | 05-SS-101-0406 | 05-SS-102-0002 |
| SAMPLE DATE | | 4/12/2011 | 4/12/2011 | 4/12/2011 | 4/12/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | 1.55 U | 1.4 U | 1.6 U | 1.32 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ETHYLBENZENE | 600[2] | 0.92 U | 0.84 U | 0.96 U | 0.79 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| METHYL TERT-BUTYL ETHER | 90[2] | 1.55 U | 1.4 U | 1.6 U | 1.32 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOLUENE | 500[2] | 1.06 U | 0.96 U | 1.1 U | 0.90 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOTAL XYLENES | 200[2] | 4.64 U | 4.21 U | 4.8 U | 3.96 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ACENAPHTHENE | 2,100[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ACENAPHTHYLENE | 27,000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ANTHRACENE | 2500000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| BENZO(A)ANTHRACENE | 800[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| BENZO(A)PYRENE | 100[1] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| CHRYSENE | 77,000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| FLUORANTHENE | 1,200,000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| FLUORENE | 160,000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| NAPHTHALENE | 12,000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PHENANTHRENE | 250,000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| PYRENE | 880,000[2] | 1.82 U | 1.81 U | 1.92 U | 1.87 U | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 28.9 J | 23.8 J | 39.3 J | 25.9 J | 1970 | 15.8 J | 20.8 J | 31.7 J | 23.8 J | 84.7 | 30.4 J | 20.6 J | 18.2 J |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-102 | 05-SS-103 | 05-SS-103 | 05-SS-103 | 05-SS-104 | 05-SS-105 | 05-SS-105 | 05-SS-105 | 05-SS-105 | 05-SS-108 | 05-SS-108 | 05-SS-108 | 05-SS-108 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 2-4 | 0-2 | 2-4 | 4-6 | 2-4 | 0-2 | 4-6 | 4-6 | 6-8 | 0-2 | 0-2 | 4-6 | 6-8 |
| SAMPLE ID | | 05-SS-102-0204 | 05-SS-103-0002 | 05-SS-103-0204 | 05-SS-103-0406 | 05-SS-104-0204 | 05-SS-105-0002 | 05-SS-105-0406 | 05-SS-105-0406-D | 05-SS-105-0608 | 05-SS-108-0002 | 05-SS-108-0002-D | 05-SS-108-0406 | 05-SS-108-0608 |
| SAMPLE DATE | | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ETHYLBENZENE | 600[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| METHYL TERT-BUTYL ETHER | 90[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOLUENE | 500[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOTAL XYLENES | 200[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.95 U | 2.05 U | 2.55 J |
| 2-METHYLNAPHTHALENE | 8,500[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.95 U | 2.05 U | 3.62 J |
| ACENAPHTHENE | 2,100[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.95 U | 2.05 U | 7.09 J |
| ACENAPHTHYLENE | 27,000[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 2.69 J | 2.05 U | 4.82 J |
| ANTHRACENE | 2500000[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.95 U | 2.05 U | 9.2 |
| BENZO(A)ANTHRACENE | 800[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 2.92 U | 2.09 U | 1.9 U | 2.05 U | 6.8 U | 2.05 U | 2.14 U |
| BENZO(A)PYRENE | 100[1] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 3.7 U | 12.4 U | 2.05 U | 2.14 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | NA | NA | NA | 1.73 U | 2.05 U | 4.7 U | 1.95 U | 2.09 U | 1.9 U | 3.3 U | 15.6 U | 2.05 U | 2.14 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.96 | 5.88 J | 2.14 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.45 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 5.33 U | 2.05 U | 2.14 U |
| CHRYSENE | 77,000[2] | NA | NA | NA | 1.73 U | 2.8 U | 2.09 U | 3.56 U | 2.09 U | 1.9 U | 2.05 U | 8.62 U | 2.05 U | 2.14 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.95 U | 2.05 U | 2.14 U |
| FLUORANTHENE | 1,200,000[2] | NA | NA | NA | 1.73 U | 5.27 U | 7.62 U | 8.73 U | 3.95 U | 1.9 U | 2.86 U | 10.7 U | 2.05 U | 6.42 J |
| FLUORENE | 160,000[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.95 U | 2.05 U | 11.3 |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.95 U | 2.05 U | 2.14 U |
| NAPHTHALENE | 12,000[2] | NA | NA | NA | 1.73 U | 2.05 U | 2.09 U | 1.95 U | 2.09 U | 1.9 U | 2.05 U | 1.95 U | 2.05 U | 2.14 U |
| PHENANTHRENE | 250,000[2] | NA | NA | NA | 1.9 J | 5.18 U | 6.78 U | 9.41 U | 2.09 U | 3.94 U | 4.74 U | 7.16 U | 3.01 U | 12.8 |
| PYRENE | 880,000[2] | NA | NA | NA | 1.73 U | 2.05 J | 6.07 J | 7.21 J | 2.8 J | 2.06 J | 2.54 J | 10.7 | 2.05 U | 4.82 J |
| B(a)P TEQ | 100[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 37.5 J | 42.2 J | 33.4 J | 20 J | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

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(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

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**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-109 | 05-SS-109 | 05-SS-109 | 05-SS-109 | 05-SS-110 | 05-SS-110 | 05-SS-110 | 05-SS-110 | 05-SS-110 | 05-SS-111 | 05-SS-111 | 05-SS-111 | 05-SS-111 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 0-2 | 2-4 | 4-6 | 6-8 | 0-2 | 2-4 | 4-6 | 4-6 | 6-8 | 0-2 | 2-4 | 4-6 | 6-8 |
| SAMPLE ID | | 05-SS-109-0002 | 05-SS-109-0204 | 05-SS-109-0406 | 05-SS-109-0608 | 05-SS-110-0002 | 05-SS-110-0204 | 05-SS-110-0406 | 05-SS-110-0406-D | 05-SS-110-0608 | 05-SS-111-0002 | 05-SS-111-0204 | 05-SS-111-0406 | 05-SS-111-0608 |
| SAMPLE DATE | | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 | 7/30/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ETHYLBENZENE | 600[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| METHYL TERT-BUTYL ETHER | 90[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOLUENE | 500[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOTAL XYLENES | 200[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.92 U | 2.04 U | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 1.88 U | 2.1 U | 2.07 U | 2.22 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.92 U | 2.04 U | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 1.88 U | 2.1 U | 2.07 U | 2.22 U |
| ACENAPHTHENE | 2,100[2] | 1.92 U | 2.04 U | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 2.26 J | 2.1 U | 2.07 U | 2.22 U |
| ACENAPHTHYLENE | 27,000[2] | 1.92 U | 3.83 J | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 61.8 | 2.1 U | 2.07 U | 2.22 U |
| ANTHRACENE | 2500000[2] | 1.94 J | 2.11 J | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 14.3 | 2.1 U | 2.07 U | 2.22 U |
| BENZO(A)ANTHRACENE | 800[2] | 3.91 J | 6.63 J | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 105 | 6.52 J | 2.07 U | 2.22 U |
| BENZO(A)PYRENE | 100[1] | 6.32 J | 11.2 | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 195 | 6.42 J | 2.07 U | 2.22 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 10.5 | 14.9 | 2.27 J | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 255 | 8.41 | 2.07 U | 2.22 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 9.49 | 14.8 | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 193 | 2.1 U | 2.07 U | 2.22 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.92 U | 7.79 J | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 87.6 | 3.1 J | 2.07 U | 2.22 U |
| CHRYSENE | 77,000[2] | 5.19 J | 7.96 J | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 119 | 6.49 J | 2.07 U | 2.22 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.92 U | 5.81 J | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 48.9 | 2.1 U | 2.07 U | 2.22 U |
| FLUORANTHENE | 1,200,000[2] | 2.65 J | 7.14 J | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 2.43 J | 1.96 U | 2.17 U | 115 | 10.3 | 2.07 U | 2.22 U |
| FLUORENE | 160,000[2] | 1.92 U | 2.04 U | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 4.25 J | 2.1 U | 2.07 U | 2.22 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 9.89 | 11.6 | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 180 | 5.49 J | 2.07 U | 2.22 U |
| NAPHTHALENE | 12,000[2] | 1.92 U | 2.04 U | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 1.88 U | 2.1 U | 2.07 U | 2.22 U |
| PHENANTHRENE | 250,000[2] | 5.28 J | 5.16 J | 2.96 J | 2.49 J | 3.61 J | 4.25 J | 4.46 J | 3.49 J | 5.91 J | 26 | 9.02 | 2.98 J | 4.07 J |
| PYRENE | 880,000[2] | 4.12 J | 8.47 | 1.97 U | 1.7 U | 1.84 U | 1.86 U | 1.94 U | 1.96 U | 2.17 U | 126 | 8.08 J | 2.07 U | 2.22 U |
| B(a)P TEQ | 100[1] | 9.72 | 20.4 | 2.41 | NA | NA | NA | NA | NA | NA | 299 | 9.55 | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-111 | 05-SS-112 | 05-SS-113 | 05-SS-114 | 05-SS-115 | 05-SS-116 | 05-SS-117 | 05-SO-117 | 05-SS-118 | 05-SS-118 | 05-SS-119 | 05-SS-120 | 05-SS-121 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 6-8 | 0-2 | 0-2 | 0-2 | 0-2 | 0-2 | 0-2 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 | 4-6 |
| SAMPLE ID | | 05-SS-111-0608-D | 05-SS-112-0002 | 05-SS-113-0002 | 05-SS-114-0002 | 05-SS-115-0002 | 05-SS-116-0002 | 05-SS-117-0002 | 05-SS-117-0406 | 05-SS-118-0406 | 05-SS-118-0406-D | 05-SS-119-0406 | 05-SS-120-0406 | 05-SS-121-0406 |
| SAMPLE DATE | | 7/30/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 | 12/6/2011 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ETHYLBENZENE | 600[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| METHYL TERT-BUTYL ETHER | 90[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOLUENE | 500[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOTAL XYLENES | 200[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.91 U | 8.68 U | 1.76 U | 8.7 U | 2.36 J | 2.49 J | 8.57 U | 1.71 U | 1.7 U | 1.68 U | 1.87 U | 1.99 U | 1.73 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.91 U | 8.68 U | 1.76 U | 15.3 J | 3.06 J | 3.56 J | 16.3 J | 1.71 U | 1.7 U | 1.68 U | 1.87 U | 4.54 J | 1.73 U |
| ACENAPHTHENE | 2,100[2] | 1.91 U | 8.68 U | 2.37 J | 10.5 J | 10.8 | 2.93 J | 16.5 J | 2.54 J | 1.7 U | 1.68 U | 1.87 U | 1.99 U | 1.73 U |
| ACENAPHTHYLENE | 27,000[2] | 1.91 U | 420 | 29.3 | 741 | 31.7 | 22.3 | 842 | 25.5 | 1.7 U | 1.68 U | 1.87 U | 1.99 U | 1.73 U |
| ANTHRACENE | 2500000[2] | 1.91 U | 95.3 | 9.67 | 147 | 18.9 | 5.5 J | 184 | 21.4 | 1.7 U | 1.68 U | 1.87 U | 4.52 J | 1.73 U |
| BENZO(A)ANTHRACENE | 800[2] | 1.91 U | 359 | 60.8 | 1790 | 114 | 37.3 | 2410 | 132 | 5.79 J | 7.47 | 3.62 J | 38.4 | 1.96 J |
| BENZO(A)PYRENE | 100[1] | 1.91 U | 609 | 90.6 | 3120 | 122 | 63.6 | 3520 | 124 | 6.99 | 6.88 | 3.21 J | 29.6 | 1.95 J |
| BENZO(B)FLUORANTHENE | 2,400[2] | 1.91 U | 916 | 134 | 4780 | 185 | 93.6 | 4950 | 186 | 9.49 | 10.4 | 4.53 J | 50.5 | 3.39 J |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.91 U | 1410 | 96.8 | 2960 | 138 | 60.9 | 3480 | 110 | 5.93 J | 5.95 J | 2.37 J | 22.3 | 1.89 J |
| BENZO(K)FLUORANTHENE | 24,000[2] | 1.91 U | 280 | 52.1 | 1590 | 78.9 | 34.5 | 1740 | 68.2 | 4.25 J | 4.49 J | 2.33 J | 22.5 | 1.73 U |
| CHRYSENE | 77,000[2] | 1.91 U | 381 | 75.7 | 1870 | 130 | 49.1 | 2640 | 148 | 6.26 J | 7.71 | 3.7 J | 51.3 | 2.49 J |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.91 U | 172 | 22.9 | 689 | 26.1 | 11.6 | 874 | 28.9 | 1.7 U | 1.68 U | 1.87 U | 5.35 J | 1.73 U |
| FLUORANTHENE | 1,200,000[2] | 1.91 U | 343 | 82.1 | 910 | 218 | 52.3 | 2620 | 223 | 8.32 | 11.7 | 6.06 J | 55.4 | 3.38 J |
| FLUORENE | 160,000[2] | 1.91 U | 8.68 U | 2.49 J | 8.7 U | 8.59 | 3.07 J | 30.1 J | 4.55 J | 1.7 U | 1.68 U | 1.87 U | 1.99 U | 1.73 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 1.91 U | 883 | 92.8 | 3070 | 118 | 61.6 | 3420 | 109 | 6.22 J | 5.87 J | 3 J | 20.5 | 1.73 U |
| NAPHTHALENE | 12,000[2] | 1.91 U | 19.1 J | 1.76 U | 18.5 J | 6.21 J | 4.03 J | 74.8 | 1.71 U | 1.7 U | 1.68 U | 1.87 U | 1.99 U | 1.73 U |
| PHENANTHRENE | 250,000[2] | 2.7 J | 52.9 | 24.6 | 78.8 | 101 | 18.7 | 250 | 76.1 | 4.17 J | 5.44 J | 3.32 J | 19.2 | 2.2 J |
| PYRENE | 880,000[2] | 1.91 U | 386 | 82.5 | 1600 | 172 | 51.7 | 2830 | 189 | 6.66 J | 9.96 | 4.99 J | 47.7 | 2.92 J |
| B(a)P TEQ | 100[1] | NA | 1000 | 143 | 4791 | 191 | 94.8 | 5492 | 196 | 9.19 | 9.31 | 4.35 | 46.2 | 2.49 |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| LOCATION | Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2] | 05-SS-122 | 05-SS-123 | 05-SS-124 | 05-SS-126 | 05-SS-127 | 05-SS-128 | 05-SS-128 | 05-SS-129 | 05-SS-129 | 05-SS-130 | 05-SS-130 | 05-SS-131 | 05-SS-131 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE DEPTH (ft bls) | | 4-6 | 4-6 | 4-6 | 0-2 | 0-2 | 0-2 | 4-6 | 0-2 | 4-6 | 0-2 | 4-6 | 0-2 | 4-6 |
| SAMPLE ID | | 05-SO-122-4-6 | 05-SO-123-4-6 | 05-SO-124-4-6 | 05-SO-126-0-2 | 05-SO-127-0-2 | 05-SO-128-0-2 | 05-SO-128-4-6 | 05-SO-129-0-2 | 05-SO-129-4-6 | 05-SO-130-0-2 | 05-SO-130-4-6-D | 05-SO-131-0-2 | 05-SO-131-4-6 |
| SAMPLE DATE | | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 | 3/27/2012 |
| **VOLATILES (UG/KG)** | | | | | | | | | | | | | | |
| BENZENE | 7[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ETHYLBENZENE | 600[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| METHYL TERT-BUTYL ETHER | 90[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOLUENE | 500[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| TOTAL XYLENES | 200[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | | | | | | | | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | 1.83 U | 1.77 U | 5.98 J | 1.72 U | 1.78 U | 1.78 U | 1.79 U | 1.72 U | 2 U | 1.73 U | 1.77 U | 1.75 U | 1.77 U |
| 2-METHYLNAPHTHALENE | 8,500[2] | 1.83 U | 1.77 U | 14.7 | 1.72 U | 1.78 U | 1.78 U | 1.79 U | 1.72 U | 2 U | 1.73 U | 1.77 U | 1.75 U | 1.77 U |
| ACENAPHTHENE | 2,100[2] | 1.83 U | 1.77 U | 1.82 U | 1.72 U | 1.78 U | 1.78 U | 1.79 U | 1.72 U | 2 U | 1.73 U | 1.77 U | 1.75 U | 1.77 U |
| ACENAPHTHYLENE | 27,000[2] | 1.83 U | 1.77 U | 1.82 U | 1.72 U | 1.78 U | 106 | 7.79 | 15.5 | 2 U | 38.1 | 1.77 U | 26 | 1.77 U |
| ANTHRACENE | 2500000[2] | 1.83 U | 1.77 U | 1.82 U | 1.72 U | 1.78 U | 28.6 | 1.79 U | 4.11 J | 2 U | 10.8 J | 1.77 U | 7.63 | 1.77 U |
| BENZO(A)ANTHRACENE | 800[2] | 8.21 J | 6.22 J | 14.6 J | 5.82 J | 1.78 U | 316 | 15.3 | 32.1 | 4.77 J | 87.6 J | 1.77 U | 72.3 | 1.77 U |
| BENZO(A)PYRENE | 100[1] | 1.83 U | 9.44 | 14.8 | 12.9 | 1.78 U | 590 | 43.4 | 63.1 | 6.44 J | 203 J | 1.77 U | 147 | 1.77 U |
| BENZO(B)FLUORANTHENE | 2,400[2] | 14 | 10.4 | 21.6 | 15 | 1.78 U | 592 | 50 | 68.6 | 2 U | 216 J | 6.12 J | 158 | 1.77 U |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | 1.83 U | 10.2 | 1.82 U | 18.2 | 3.98 J | 542 | 43.8 | 82.2 | 7.12 J | 183 | 5.98 J | 138 | 1.77 U |
| BENZO(K)FLUORANTHENE | 24,000[2] | 11.9 | 9.87 | 19 | 10.2 | 1.78 U | 475 | 32.6 | 47.2 | 2 U | 162 J | 4.48 J | 124 | 1.77 U |
| CHRYSENE | 77,000[2] | 12.9 | 6.62 J | 17.5 | 8.54 | 1.78 U | 338 | 22.6 | 39.9 | 5.24 J | 115 J | 3.68 J | 85.1 | 1.77 U |
| DIBENZO(A,H)ANTHRACENE | 700[2] | 1.83 U | 1.77 U | 1.82 U | 4.91 J | 1.78 U | 158 | 11.2 | 19.1 | 2 U | 53.7 J | 1.77 U | 43.1 | 1.77 U |
| FLUORANTHENE | 1,200,000[2] | 16.1 | 8.69 | 31.1 | 6.52 J | 1.78 U | 363 | 20.2 | 44.4 | 7.91 J | 114 J | 4.08 J | 91 | 1.77 U |
| FLUORENE | 160,000[2] | 1.83 U | 1.77 U | 1.82 U | 1.72 U | 1.78 U | 1.78 U | 1.79 U | 1.72 U | 2 U | 1.73 U | 1.77 U | 1.75 U | 1.77 U |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | 6.76 J | 6.66 J | 11.1 | 13.9 | 3.73 J | 477 | 36.9 | 57.3 | 5.32 J | 167 J | 5.56 J | 124 | 1.77 U |
| NAPHTHALENE | 12,000[2] | 1.83 U | 1.77 U | 11.6 | 1.72 U | 1.78 U | 6.12 J | 1.79 U | 1.72 U | 2 U | 1.73 U | 1.77 U | 1.75 U | 1.77 U |
| PHENANTHRENE | 250,000[2] | 4.45 J | 1.77 U | 14.2 | 1.72 U | 1.78 U | 45.6 | 4.68 J | 7.18 | 2 U | 9.19 | 1.77 U | 18 | 1.77 U |
| PYRENE | 880,000[2] | 16.3 | 8.24 | 30 | 7.74 | 1.78 U | 420 | 24.1 | 44.1 | 7.56 J | 143 J | 4.04 J | 99.9 | 1.77 U |
| B(a)P TEQ | 100[1] | 3.03 | 11.9 | 19.7 | 21.4 | 0.373 | 892 | 65.2 | 98.5 | 7.45 | 305 | 1.22 | 227 | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | | | | | | | | | | | |
| TRPH (C08-C40) | 340[2] | 39.8 J | 11.6 U | 28.6 J | 11.5 U | 11.5 U | 19.4 J | 11.9 U | 14.4 J | 12.6 U | 12 J | 11.4 U | 392 | 14.7 J |
| C10-C12 ALIPHATICS | 1,700[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C10-C12 AROMATICS | 520[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 ALIPHATICS | 2,900[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C12-C16 AROMATICS | 1,000[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C21 AROMATICS | 1,300[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C16-C35 ALIPHATICS | 42,000[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C5-C7 AROMATICS | 34[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C6-C8 ALIPHATICS | 1,300[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C7-C8 AROMATICS | 59[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 ALIPHATICS | 850[1] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| C8-C10 AROMATICS | 340[2] | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-1**

**SUMMARY OF DETECTED SOIL ANALYTICAL RESULT DETECTIONS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**


| **LOCATION**<br>**SAMPLE DEPTH (ft bls)**<br>**SAMPLE ID**<br>**SAMPLE DATE** | **Florida Residential Direct Exposure SCTL[1] /Leachability to Groundwater SCTL [2]** | **05-SS-132**<br>**0-2**<br>**05-SO-132-0-2**<br>**3/27/2012** | **05-SS-132**<br>**2-4**<br>**05-SO-132-2-4**<br>**3/27/2012** | **05-SS-132**<br>**4-6**<br>**05-SO-132-4-6**<br>**3/27/2012** |
|---|---|---|---|---|
| **VOLATILES (UG/KG)** | | | | |
| BENZENE | 7[2] | NA | NA | NA |
| ETHYLBENZENE | 600[2] | NA | NA | NA |
| METHYL TERT-BUTYL ETHER | 90[2] | NA | NA | NA |
| TOLUENE | 500[2] | NA | NA | NA |
| TOTAL XYLENES | 200[2] | NA | NA | NA |
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/KG)** | | | | |
| 1-METHYLNAPHTHALENE | 3,100[2] | NA | NA | NA |
| 2-METHYLNAPHTHALENE | 8,500[2] | NA | NA | NA |
| ACENAPHTHENE | 2,100[2] | NA | NA | NA |
| ACENAPHTHYLENE | 27,000[2] | NA | NA | NA |
| ANTHRACENE | 2500000[2] | NA | NA | NA |
| BENZO(A)ANTHRACENE | 800[2] | NA | NA | NA |
| BENZO(A)PYRENE | 100[1] | NA | NA | NA |
| BENZO(B)FLUORANTHENE | 2,400[2] | NA | NA | NA |
| BENZO(G,H,I)PERYLENE | 2,500,000[1] | NA | NA | NA |
| BENZO(K)FLUORANTHENE | 24,000[2] | NA | NA | NA |
| CHRYSENE | 77,000[2] | NA | NA | NA |
| DIBENZO(A,H)ANTHRACENE | 700[2] | NA | NA | NA |
| FLUORANTHENE | 1,200,000[2] | NA | NA | NA |
| FLUORENE | 160,000[2] | NA | NA | NA |
| INDENO(1,2,3-CD)PYRENE | 6,600[2] | NA | NA | NA |
| NAPHTHALENE | 12,000[2] | NA | NA | NA |
| PHENANTHRENE | 250,000[2] | NA | NA | NA |
| PYRENE | 880,000[2] | NA | NA | NA |
| B(a)P TEQ | 100[1] | NA | NA | NA |
| **PETROLEUM HYDROCARBONS (MG/KG)** | | | | |
| TRPH (C08-C40) | 340[2] | NA | NA | NA |
| C10-C12 ALIPHATICS | 1,700[1] | 270 | 290 | 37 U |
| C10-C12 AROMATICS | 520[2] | 140 | 180 | 29 U |
| C12-C16 ALIPHATICS | 2,900[1] | 450 | 840 | 37 U |
| C12-C16 AROMATICS | 1,000[2] | 280 | 410 | 29 U |
| C16-C21 AROMATICS | 1,300[1] | 140 | 290 | 29 U |
| C16-C35 ALIPHATICS | 42,000[1] | 160 | 1800 | 37 U |
| C5-C7 AROMATICS | 34[2] | 34 J | 74 J | 29 U |
| C6-C8 ALIPHATICS | 1,300[2] | 400 | 1800 | 37 U |
| C7-C8 AROMATICS | 59[2] | 31 U | 180 | 48 J |
| C8-C10 ALIPHATICS | 850[1] | 490 | 790 | 37 U |
| C8-C10 AROMATICS | 340[2] | 45 J | 120 | 29 U |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapter 62-777, Florida Administrative Code (F.A.C.),

(2) Leachability to groundwater criteria, Chapter 62-777 F.A.C.

A "D" at the end of sample ID's indicates the sample is a duplicate

B(a)P TEQ = benzo(a)pyrene toxic equivalency conversion

bls = below lands surface

ft = feet

J = indicates the reported concentration is an estimate

MG/KG = milligrams per kilogram

NA = not analyzed

SCTL =Soil Cleanup Target Level

U = indicates the reported concentration is below method detection limits

UG/KG = micrograms per kilogram

Shaded cell indicates the reported concentration exceeds the Florida CTL.

**TABLE 4-2**

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**



| LOCATION<br>SAMPLE ID<br>SAMPLE DATE | Florida CTL [1] | 05-SS-005<br>05-MW-005<br>3/23/2011 | 05-SS-005<br>05-MW-005-D<br>3/23/2011 | 05-SS-014<br>05-MW-014<br>3/24/2011 | 05-SS-039<br>05-MW-039<br>4/6/2011 | 05-SS-049<br>05-MW-049<br>4/8/2011 | 05-SS-053<br>05-MW-053<br>4/10/2011 | 05-SS-084<br>05-MW-084<br>3/29/2011 |
|---|---|---|---|---|---|---|---|---|
| **METALS (UG/L)** | | | | | | | | |
| LEAD | 15 | 84.1 | 88.5 | 538 | 343 | 69.7 | 127 | 68.4 |
| **VOLATILES (UG/L)** | | | | | | | | |
| 1,1,1-TRICHLOROETHANE | 200 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 1,1,2,2-TETRACHLOROETHANE | 0.2 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 1,1,2-TRICHLOROETHANE | 5 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 1,1-DICHLOROETHANE | 70 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 1,1-DICHLOROETHENE | 7 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 1,2,4-TRICHLOROBENZENE | 70 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 1,2-DIBROMOETHANE | 0.02 | 0.00794 U | 0.00805 U | 0.00794 U | 0.01 U | 0.00944 U | 0.00921 U | 0.00799 U |
| 1,2-DICHLOROETHANE | 3 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 1,2-DICHLOROPROPANE | 5 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| 2-CHLOROETHYL VINYL ETHER | NA | 1.25 U | 1.25 U | 1.25 U | 1.25 U | 1.25 U | 1.25 U | 1.25 U |
| ACROLEIN | 3.5 | 1.2 UR | 1.2 UR | 1.2 UR | 1.25 UR | 1.25 UR | 1.25 UR | 1.2 UR |
| ACRYLONITRILE | 0.06 | 2.5 UJ | 2.5 UJ | 2.5 U | 2.5 U | 2.5 U | 2.5 U | 2.5 U |
| BENZENE | 1 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| BROMODICHLOROMETHANE | 0.6 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| BROMOFORM | 4.4 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| BROMOMETHANE | 9.8 | 0.50 U | 0.50 U | 0.50 U | 0.50 U | 0.50 UJ | 0.50 U | 0.50 U |
| CARBON TETRACHLORIDE | 3 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| CHLOROBENZENE | 100 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| CHLORODIBROMOMETHANE | 0.4 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| CHLOROETHANE | 12 | 0.50 UJ | 0.50 UJ | 0.50 UJ | 0.50 U | 0.50 UJ | 0.50 U | 0.50 U |
| CHLOROFORM | 70 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.676 J |
| CHLOROMETHANE | 2.7 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| CIS-1,2-DICHLOROETHENE | 70 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| CIS-1,3-DICHLOROPROPENE | NA | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| ETHYLBENZENE | 30 | 0.25 U | 0.25 U | 0.442 J | 0.25 U | 0.25 U | 0.25 U | 0.271 J |
| METHYL TERT-BUTYL ETHER | 20 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| TETRACHLOROETHENE | 3 | 0.25 U | 0.25 U | 0.25 U | 0.669 J | 0.25 U | 0.25 U | 0.25 U |
| TOLUENE | 40 | 0.328 J | 0.468 J | 0.958 J | 0.25 U | 0.252 J | 0.329 J | 0.742 J |
| TOTAL XYLENES | 20 | 0.75 U | 1.07 J | 1.6 J | 0.75 U | 0.75 U | 0.75 U | 1.06 J |
| TRANS-1,2-DICHLOROETHENE | 100 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| TRANS-1,3-DICHLOROPROPENE | NA | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| TRICHLOROETHENE | 3 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |
| TRICHLOROFLUOROMETHANE | 2100 | 0.50 U | 0.50 U | 0.25 U | 0.50 U | 0.50 U | 0.50 U | 0.50 U |
| VINYL CHLORIDE | 1 | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U | 0.25 U |

See notes at end of table.

**TABLE 4-2**

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**
**SITE 5 SITE ASSESSMENT REPORT**
**SAUFLEY FIELD**
**PENSACOLA, FLORIDA**



| LOCATION<br>SAMPLE ID<br>SAMPLE DATE | Florida CTL (1) | 05-SS-005<br>05-MW-005<br>3/23/2011 | 05-SS-005<br>05-MW-005-D<br>3/23/2011 | 05-SS-014<br>05-MW-014<br>3/24/2011 | 05-SS-039<br>05-MW-039<br>4/6/2011 | 05-SS-049<br>05-MW-049<br>4/8/2011 | 05-SS-053<br>05-MW-053<br>4/10/2011 | 05-SS-084<br>05-MW-084<br>3/29/2011 |
|---|---|---|---|---|---|---|---|---|
| **POLYCYCLIC AROMATIC HYDROCARBONS (UG/L)** | | | | | | | | |
| 1-METHYLNAPHTHALENE | 28 | 0.158 J | 0.17 J | 0.0739 J | 0.0556 U | 0.05 U | 0.0481 U | 0.0681 J |
| 2-METHYLNAPHTHALENE | 28 | 0.323 | 0.325 | 0.118 J | 0.0556 U | 0.05 U | 0.0481 U | 0.119 J |
| ACENAPHTHENE | 20 | 0.049 U | 0.0588 U | 0.05 U | 0.0556 U | 0.05 U | 0.0481 U | 0.049 U |
| ACENAPHTHYLENE | 210 | 0.049 U | 0.0588 U | 0.05 U | 0.0556 U | 0.05 U | 0.0481 U | 0.049 U |
| ANTHRACENE | 2100 | 0.049 U | 0.0588 U | 0.05 U | 0.0556 U | 0.05 U | 0.0608 J | 0.049 U |
| BENZO(A)ANTHRACENE | 0.2* | 0.217 U | 0.0588 U | **0.238** | **0.244** | 0.05 U | **0.242** | 0.049 U |
| BENZO(A)PYRENE | 0.2 | 0.049 U | 0.0588 U | 0.05 U | 0.0556 U | 0.05 U | 0.0481 U | 0.049 U |
| BENZO(B)FLUORANTHENE | 0.2* | 0.049 U | 0.0588 U | 0.05 U | 0.0556 U | 0.05 U | 0.0488 J | 0.049 U |
| BENZO(G,H,I)PERYLENE | 210 | 0.049 U | 0.0588 U | 0.05 U | 0.0556 U | 0.05 U | 0.0506 J | 0.049 U |
| BENZO(K)FLUORANTHENE | 0.5 | 0.049 U | 0.0588 U | 0.0687 J | 0.0556 U | 0.05 U | 0.0567 J | 0.049 U |
| CHRYSENE | 4.8 | 0.049 U | 0.0588 U | 0.052 J | 0.0556 U | 0.05 U | 0.0543 J | 0.049 U |
| DIBENZO(A,H)ANTHRACENE | 0.2* | 0.049 U | 0.0588 U | 0.0519 J | 0.0556 U | 0.05 U | 0.0554 J | 0.049 U |
| FLUORANTHENE | 280 | 0.059 J | 0.0588 U | 0.05 U | 0.111 J | 0.05 U | 0.0564 J | 0.049 U |
| FLUORENE | 280 | 0.049 U | 0.0588 U | 0.05 U | 0.0556 U | 0.05 U | 0.0481 U | 0.049 U |
| INDENO(1,2,3-CD)PYRENE | 0.2* | 0.049 U | 0.0588 U | 0.05 U | 0.0556 U | 0.05 U | 0.0507 J | 0.049 U |
| NAPHTHALENE | 14 | 0.677 | 0.748 | 0.476 | 0.0556 U | 0.05 U | 0.0481 U | 0.455 |
| PHENANTHRENE | 210 | 0.0812 J | 0.0588 U | 0.0561 J | 0.278 | 0.05 U | 0.0713 J | 0.049 U |
| PYRENE | 210 | 0.049 U | 0.0588 U | 0.05 U | 0.0922 J | 0.05 U | 0.055 J | 0.049 U |
| **PETROLEUM HYDROCARBONS (MG/L)** | | | | | | | | |
| TRPH (C08-C40) | 5 | 0.317 J | 0.167 U | 0.167 U | 0.163 U | 0.17 U | 0.167 U | 0.20 U |

Notes:

(1) Final Technical Report: Development of Cleanup Target Levels (CTLs) for Chapters 62-550 and 62-777, Florida Administrative Code, Table I, February 2005.

*=The Florida cleanup target level (CTL) is lower than the laboratory limit of detection; therefore, the Project Team has agreed to replace the CTL with the laboratory's limit of quantitation (LOQ) for decisions making purposes, as suggested in "Guidance for the Selection of Analytical Methods for the Evaluation of Practical Quantitation Limits" (FDEP, October 2004). Bold values exceed the LOQ.

D =Duplicate Sample
J = indicates the reported concentration is an estimate
MG/L = milligrams per liter
NA = not applicable
U = indicates the reported concentration is below method detection limits
UG/L = micrograms per liter

Shaded Values indicates the reported concentration exceeds its Florida CTL.

# FIGURES

PGH:P:\GIS\SAUFLEY_OLF\MAPDOCS\MXD\SITE05_BASE_LOCATION.MXD 6/28/2012 JN

| DRAWN BY | DATE |
|---|---|
| K. MOORE | 06/09/10 |
| CHECKED BY | DATE |
| M. BROCK | 6/28/2012 |
| REVISED BY | DATE |
| | |
| SCALE | |
| AS NOTED | |

NAVFAC

BASE LOCATION MAP
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2748 | JM26 |
| APPROVED BY | DATE |
| | |
| APPROVED BY | DATE |
| | |
| FIGURE NO. FIGURE 1-1 | REV 0 |

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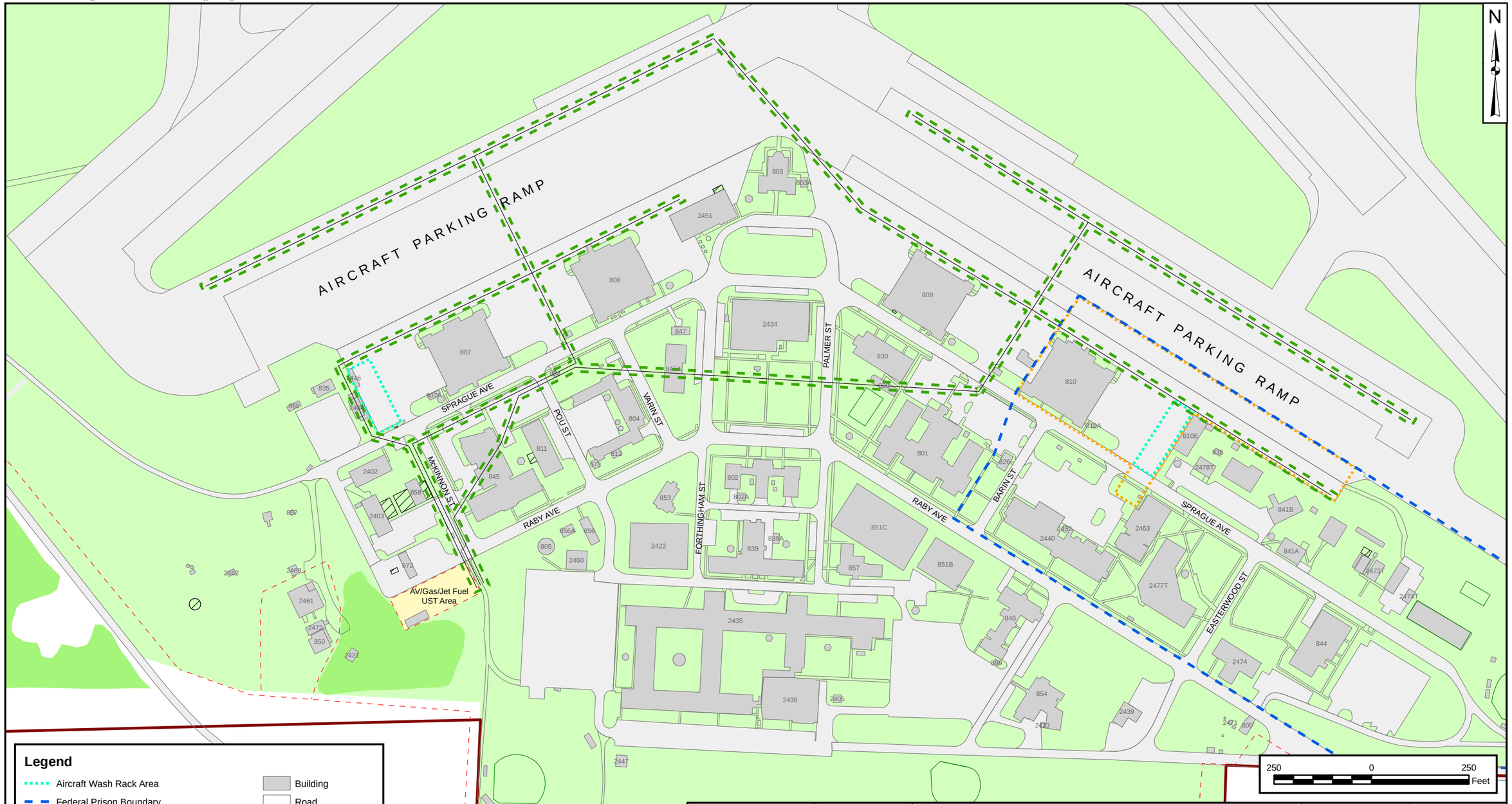


## Legend

- Aircraft Wash Rack Area
- Federal Prison Boundary
- Entry Requires Coordination with Prison Officals
- Site 5 Boundary
- Fuel Pipeline
- Fence
- Building
- Road
- UST Area
- Forest Stand
- Property Boundary
- Paved Surface
- Grass

| DRAWN BY | DATE |
|---|---|
| K. MOORE | 06/03/10 |
| CHECKED BY | DATE |
| M. BROCK | 6/28/2012 |
| REVISED BY | DATE |
| J. NOVAK | 6/28/2012 |
| SCALE | |
| AS NOTED | |

NAVFAC

SITE MAP
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2748 | JM26 |
| APPROVED BY | DATE |
| — | — |
| APPROVED BY | DATE |
| — | — |
| FIGURE NO. | REV |
| FIGURE 1-2 | 0 |

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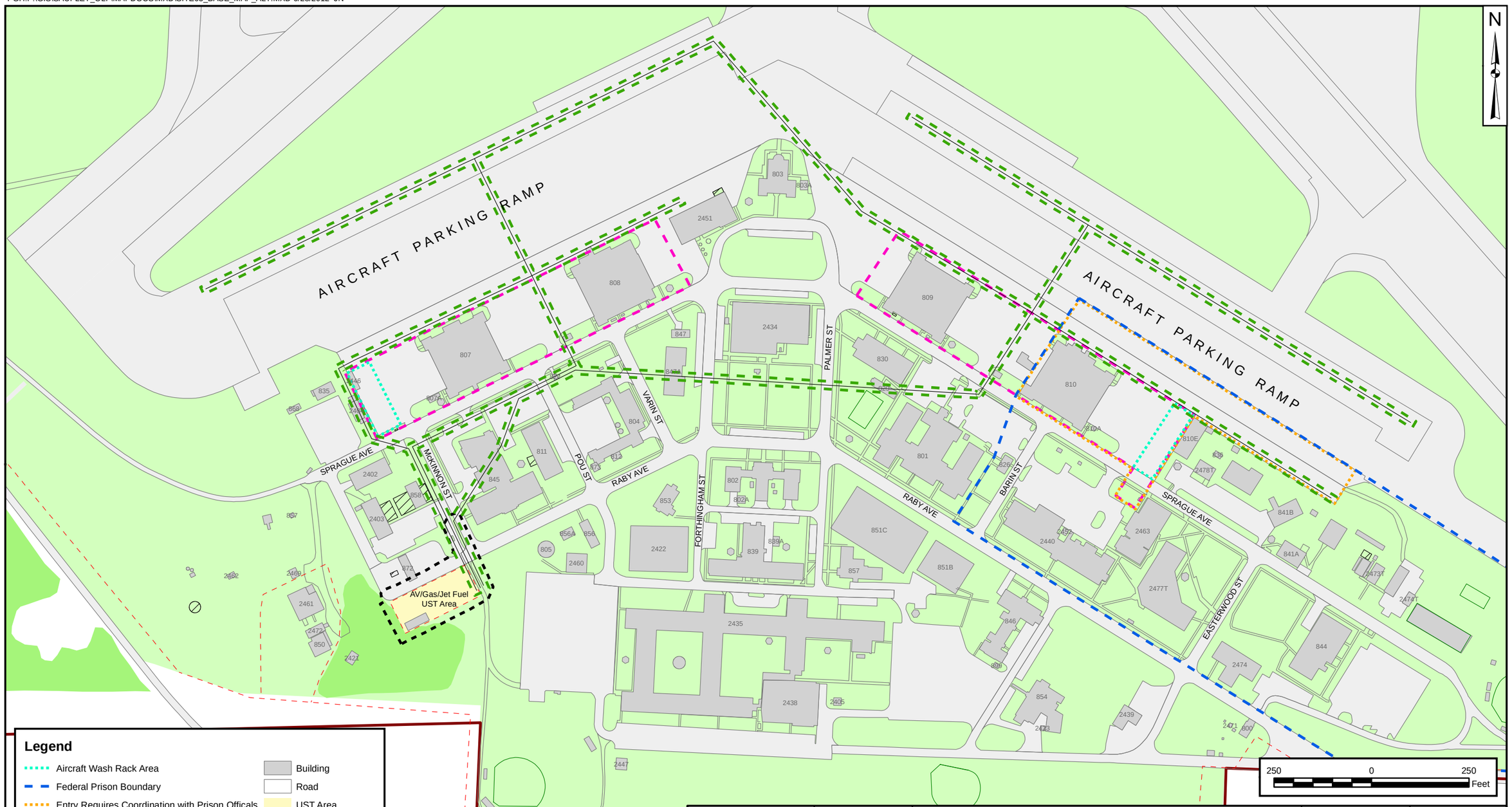


## Legend

- Aircraft Wash Rack Area
- Federal Prison Boundary
- Entry Requires Coordination with Prison Officals
- Site 5 Boundary
- Fuel Pipeline
- Fence
- Site 4 Boundary
- UST 2406 Boundary
- Building
- Road
- UST Area
- Forest Stand
- Property Boundary
- Paved Surface
- Grass

| DRAWN BY | DATE |
|---|---|
| J. ENGLISH | 10/04/11 |
| CHECKED BY | DATE |
| M. BROCK | 6/28/2012 |
| REVISED BY | DATE |
| J. NOVAK | 6/28/2012 |
| SCALE | |
| AS NOTED | |

NAVFAC

AVGAS/JP-4 DISTRIBUTION SYSTEM
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2748 | JM26 |
| APPROVED BY | DATE |
| — | — |
| APPROVED BY | DATE |
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| FIGURE NO. | REV |
| FIGURE 1-3 | 0 |

PGH P:\GIS\SAUFLEY_OLF\MAPDOCS\MXD\SITE05_SOIL_SAMPLOCS.MXD 09/14/12 JN

| DRAWN BY | DATE |
|---|---|
| J. ENGLISH | 10/05/11 |
| CHECKED BY | DATE |
| A. IGOE | 09/14/12 |
| REVISED BY | DATE |
| J. NOVAK | 09/14/12 |
| SCALE | |
| AS NOTED | |

NAVFAC

INITIAL SOIL SAMPLING LOCATIONS
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2748 | JM26 |
| APPROVED BY | DATE |
| — | — |
| APPROVED BY | DATE |
| — | — |
| FIGURE NO. | REV |
| FIGURE 2-1 | 0 |

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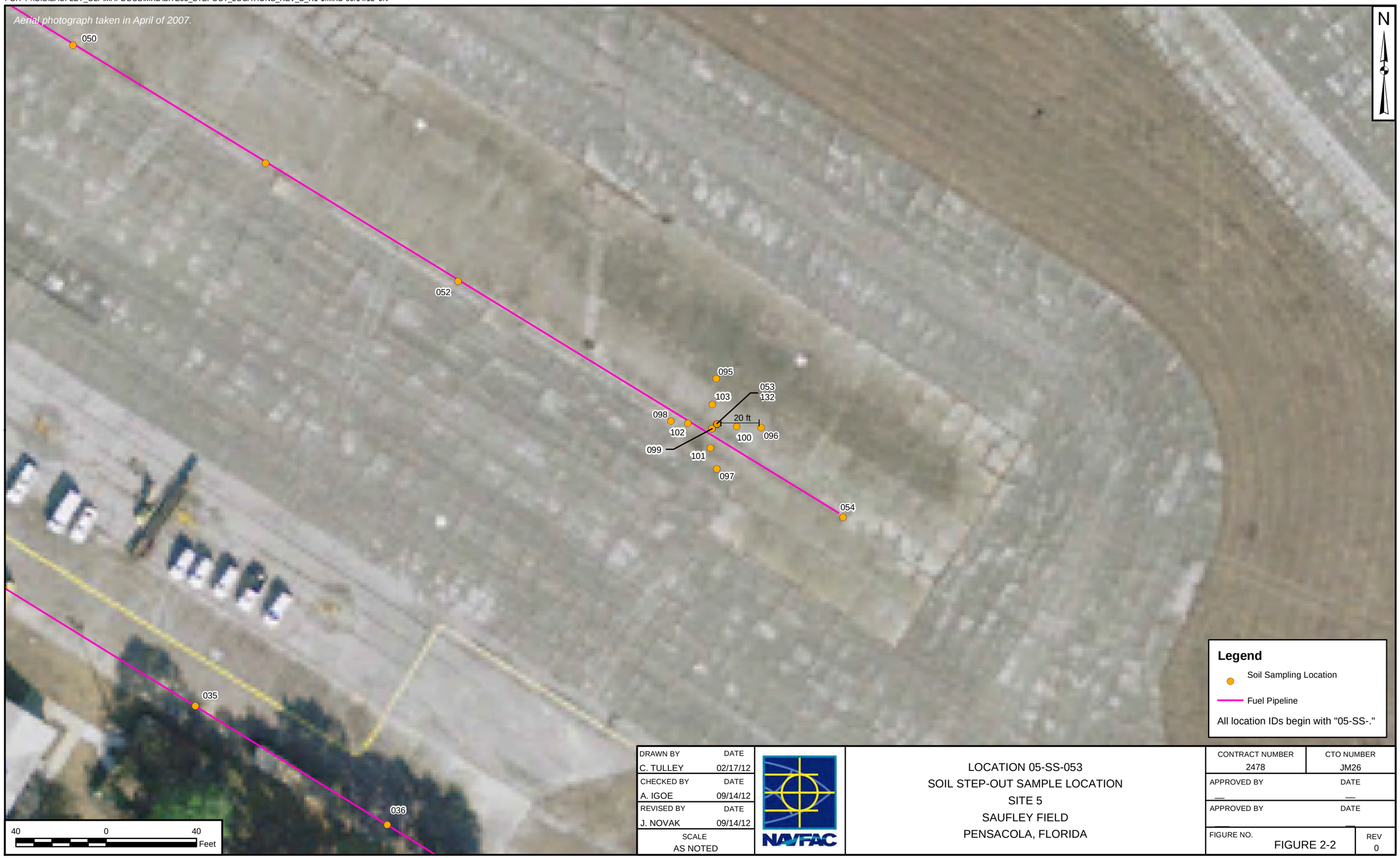


| DRAWN BY | DATE |
|---|---|
| C. TULLEY | 02/17/12 |
| CHECKED BY | DATE |
| A. IGOE | 09/14/12 |
| REVISED BY | DATE |
| J. NOVAK | 09/14/12 |
| SCALE | |
| AS NOTED | |

NAVFAC

LOCATION 05-SS-053
SOIL STEP-OUT SAMPLE LOCATION
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2478 | JM26 |
| APPROVED BY | DATE |
| — | — |
| APPROVED BY | DATE |
| — | — |
| FIGURE NO. FIGURE 2-2 | REV 0 |

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| DRAWN BY | DATE |
|---|---|
| C. TULLEY | 02/15/12 |
| CHECKED BY | DATE |
| A. IGOE | 09/14/12 |
| REVISED BY | DATE |
| J. NOVAK | 09/14/12 |
| SCALE | |
| AS NOTED | |

NAVFAC

LOCATION 05-SS-068
SOIL STEP-OUT SAMPLE LOCATIONS
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2478 | JM26 |
| APPROVED BY | DATE |
| | |
| APPROVED BY | DATE |
| | |
| FIGURE NO. FIGURE 2-3 | REV 0 |

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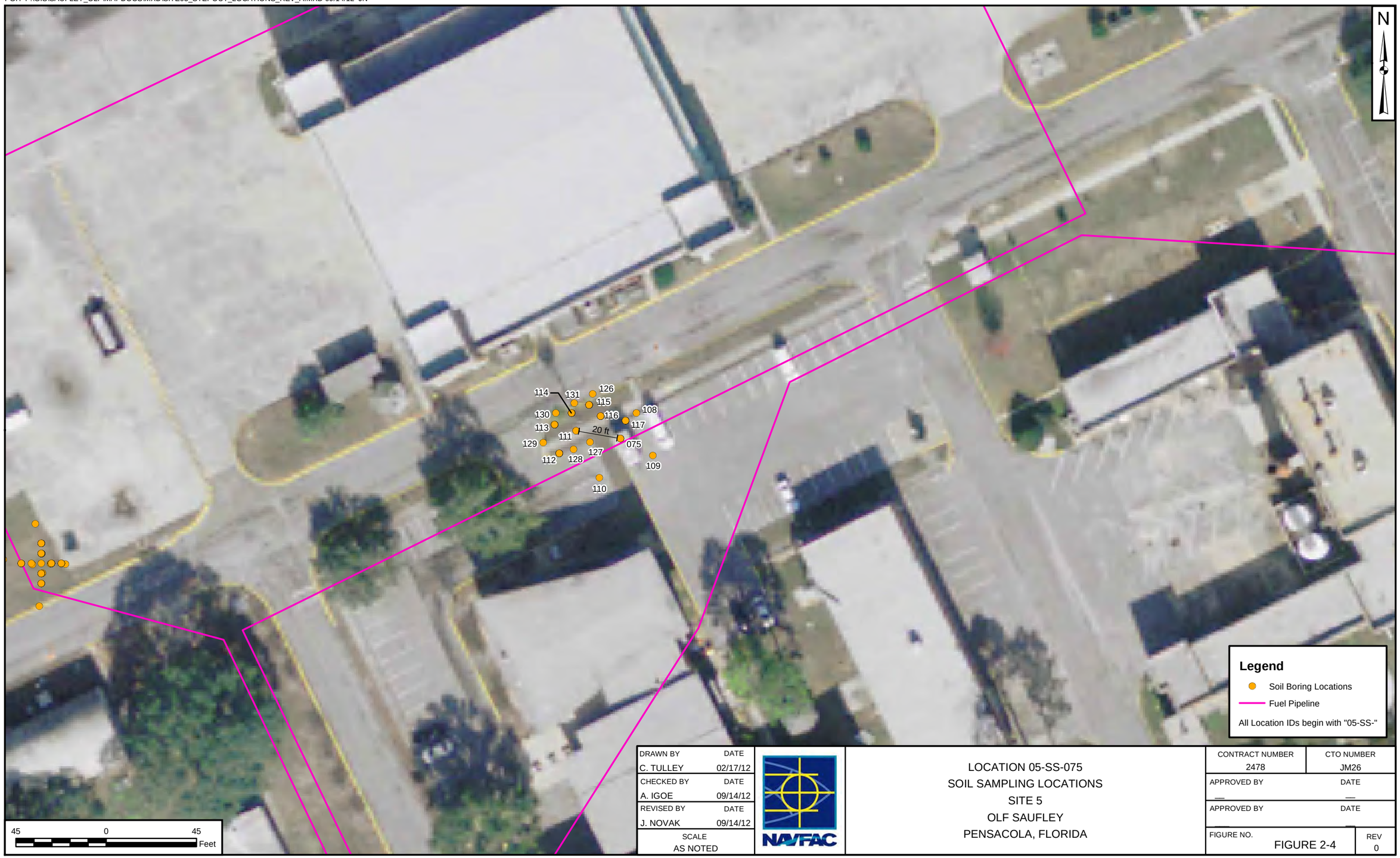
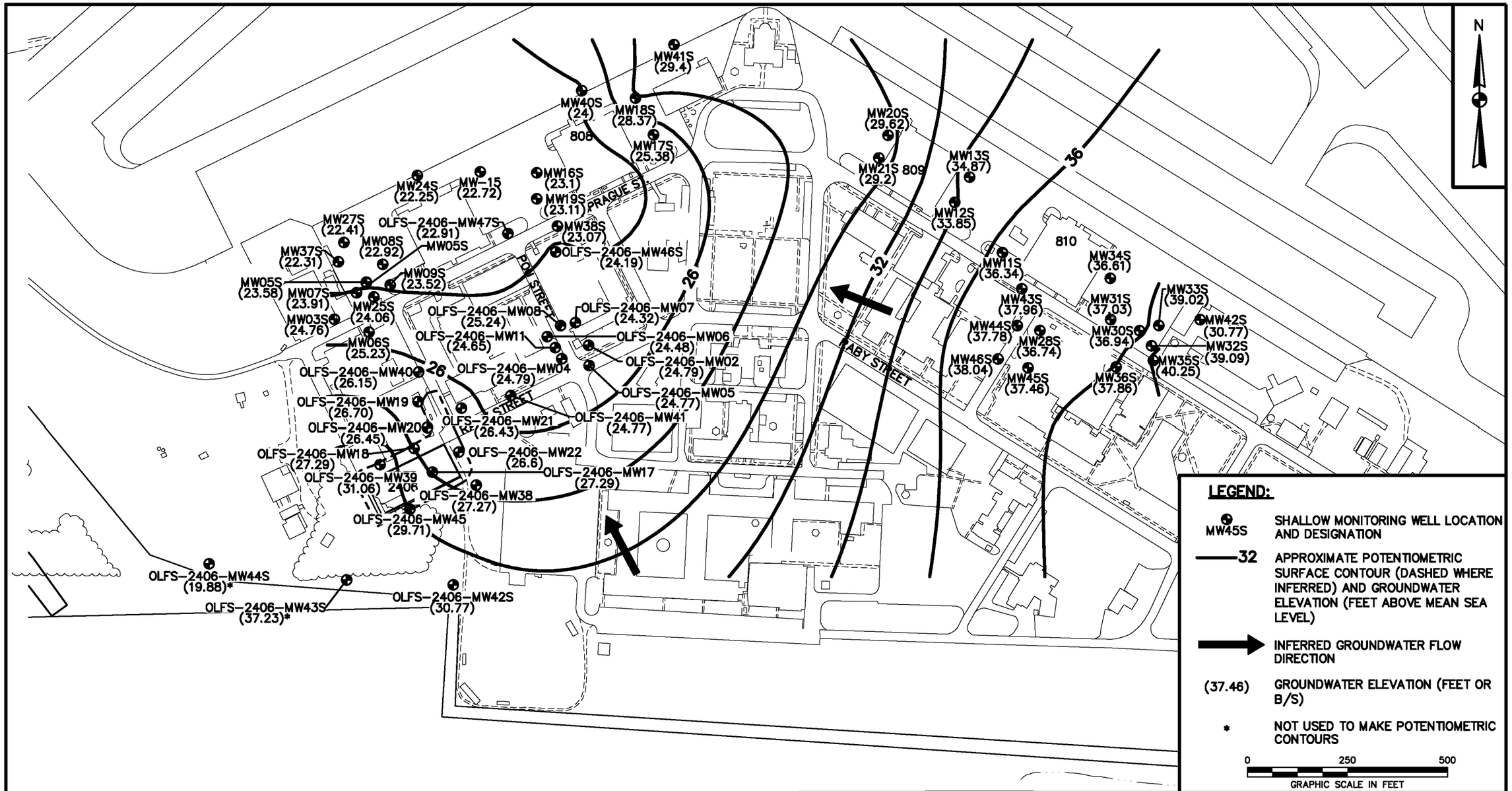



| DRAWN BY | DATE |
|---|---|
| C. TULLEY | 02/17/12 |
| CHECKED BY | DATE |
| A. IGOE | 09/14/12 |
| REVISED BY | DATE |
| J. NOVAK | 09/14/12 |
| SCALE | |
| AS NOTED | |

NAVFAC

LOCATION 05-SS-075
SOIL SAMPLING LOCATIONS
SITE 5
OLF SAUFLEY
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2478 | JM26 |
| APPROVED BY | DATE |
| — | — |
| APPROVED BY | DATE |
| — | — |
| FIGURE NO. FIGURE 2-4 | REV 0 |




| DRAWN BY | DATE |
|---|---|
| CK | 2/27/09 |
| CHECKED BY | DATE |
| REVISED BY | DATE |
| SCALE AS NOTED | |

NAVFAC

SHALLOW GROUNDWATER FLOW
MARCH 2012
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NO. 1031 | |
|---|---|
| APPROVED BY | DATE |
| DRAWING NO. FIGURE 3-1 | REV. 0 |

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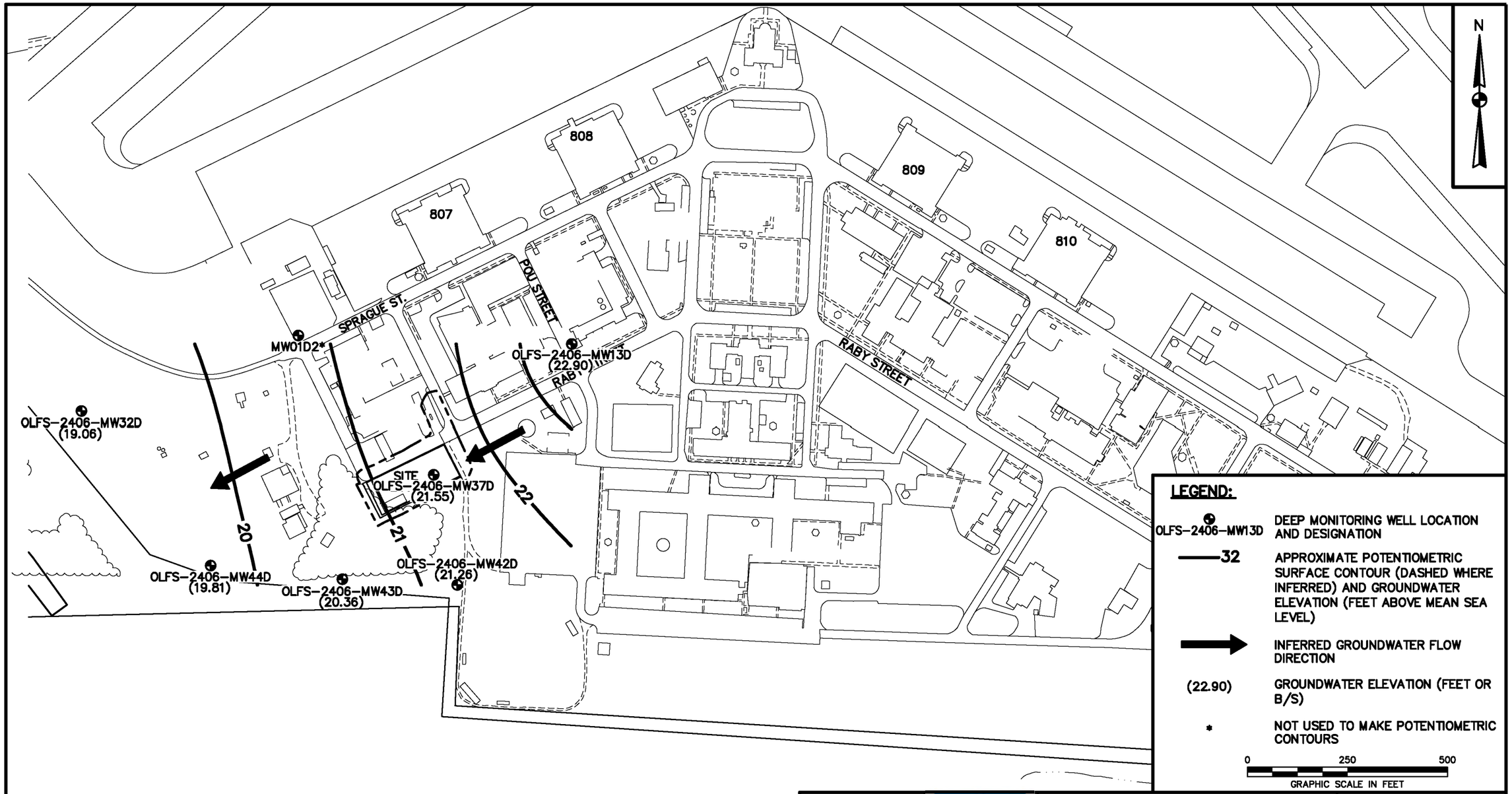


| DRAWN BY | DATE |
|---|---|
| CK | 2/27/09 |
| CHECKED BY | DATE |
| REVISED BY | DATE |
| SCALE AS NOTED | |

NAVFAC

DEEP GROUNDWATER FLOW
MARCH 2012
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NO. 1031 | |
|---|---|
| APPROVED BY | DATE |
| DRAWING NO. FIGURE 3-2 | REV. 0 |

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| DRAWN BY | DATE |
|---|---|
| T, WHEATON | 04/15/11 |
| CHECKED BY | DATE |
| M. BROCK | 10/07/11 |
| REVISED BY | DATE |
| ___ | ___ |
| SCALE | |
| AS NOTED | |

NAVFAC

POTABLE WATER SUPPLY
WELL SURVEY
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2748 | JM26 |
| APPROVED BY | DATE |
| ___ | ___ |
| APPROVED BY | DATE |
| ___ | ___ |
| FIGURE NO. | REV |
| FIGURE 3-3 | 0 |

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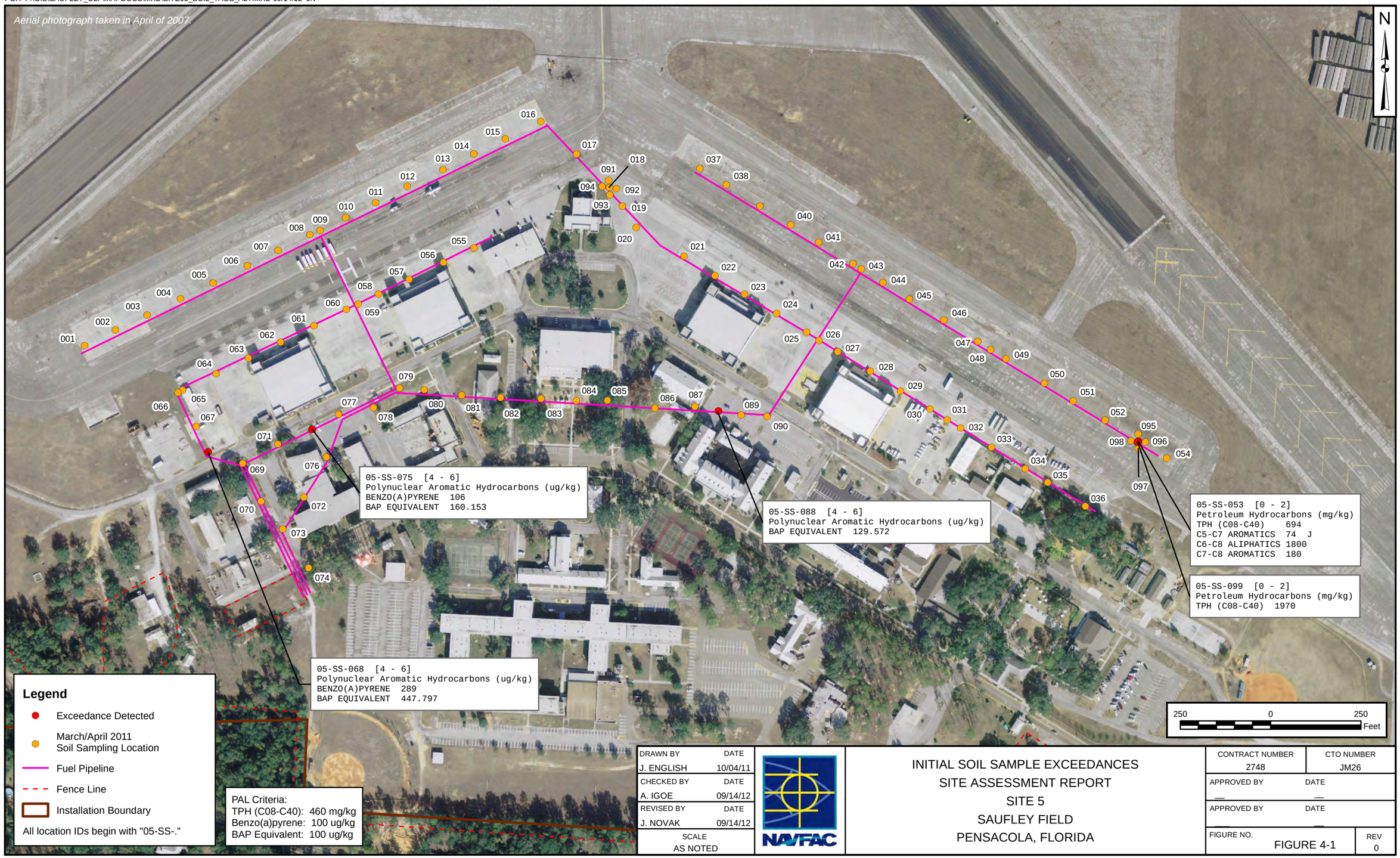


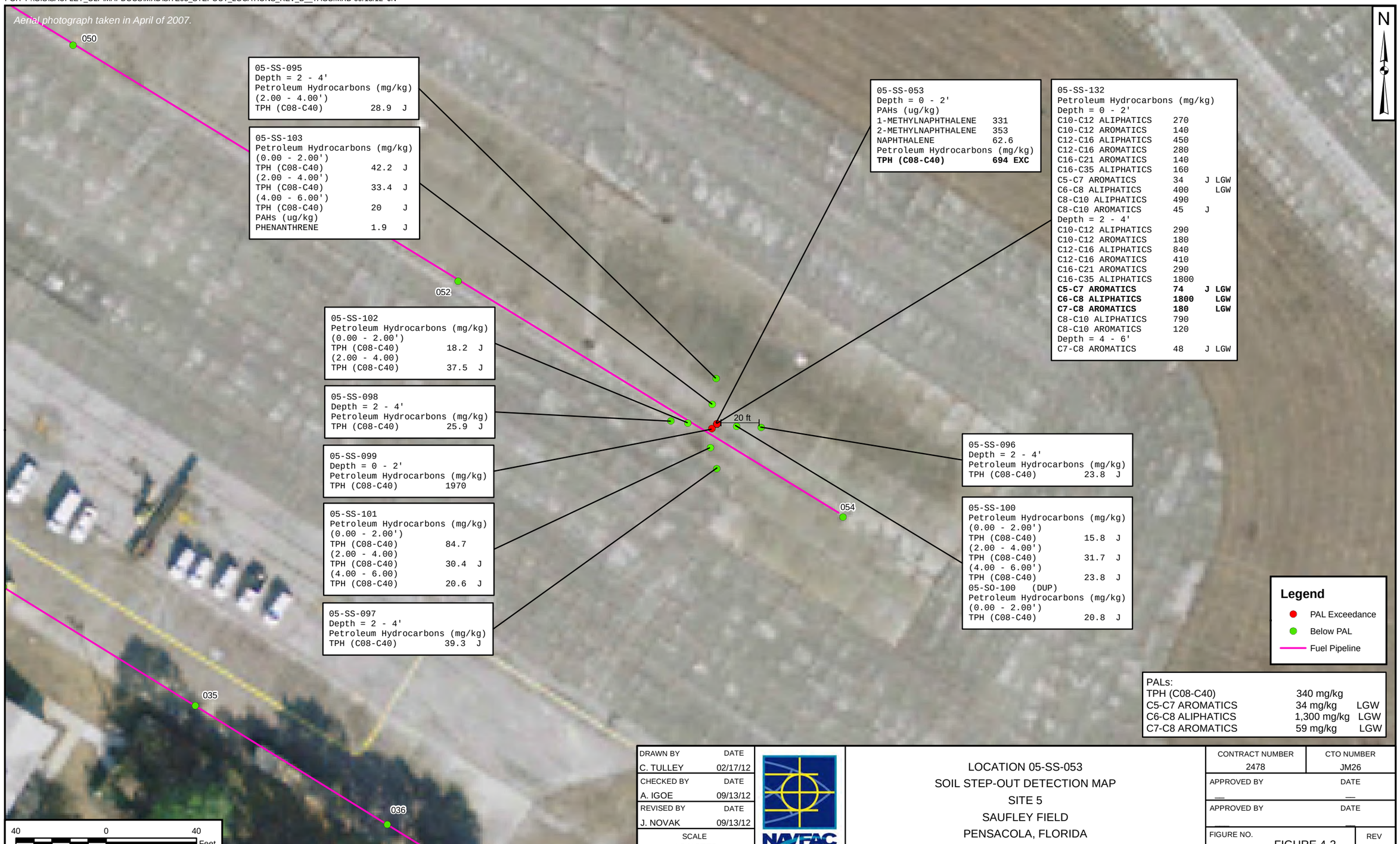

| DRAWN BY | DATE |
|---|---|
| J. ENGLISH | 10/04/11 |
| CHECKED BY | DATE |
| A. IGOE | 09/14/12 |
| REVISED BY | DATE |
| J. NOVAK | 09/14/12 |
| SCALE | |
| AS NOTED | |

NAVFAC

INITIAL SOIL SAMPLE EXCEEDANCES
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2748 | JM26 |
| APPROVED BY | DATE |
| APPROVED BY | DATE |
| FIGURE NO. FIGURE 4-1 | REV 0 |

PGH P:\GIS\SAUFLEY_OLF\MAPDOCS\MXD\SITE05_STEPOUT_LOCATIONS_REV_B__TAGS.MXD 09/13/12 JN



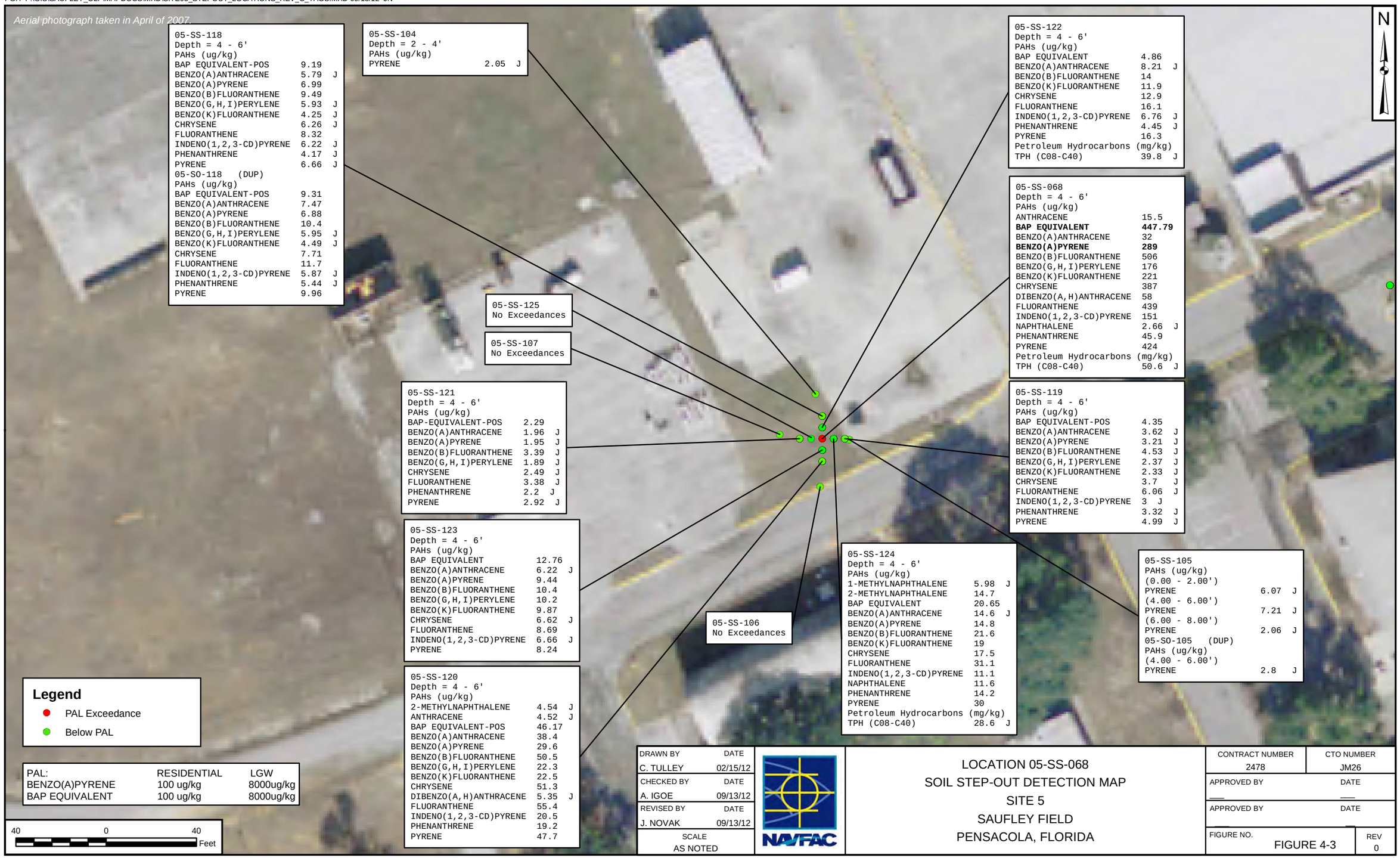

| DRAWN BY | DATE |
|---|---|
| C. TULLEY | 02/17/12 |
| CHECKED BY | DATE |
| A. IGOE | 09/13/12 |
| REVISED BY | DATE |
| J. NOVAK | 09/13/12 |
| SCALE | |
| AS NOTED | |

NAVFAC

LOCATION 05-SS-053
SOIL STEP-OUT DETECTION MAP
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2478 | JM26 |
| APPROVED BY | DATE |
| — | — |
| APPROVED BY | DATE |
| — | — |
| FIGURE NO. FIGURE 4-2 | REV 0 |

PGH P:\GIS\SAUFLEY_OLF\MAPDOCS\MXD\SITE05_STEPOUT_LOCATIONS_REV_C_TAGS.MXD 09/13/12 JN



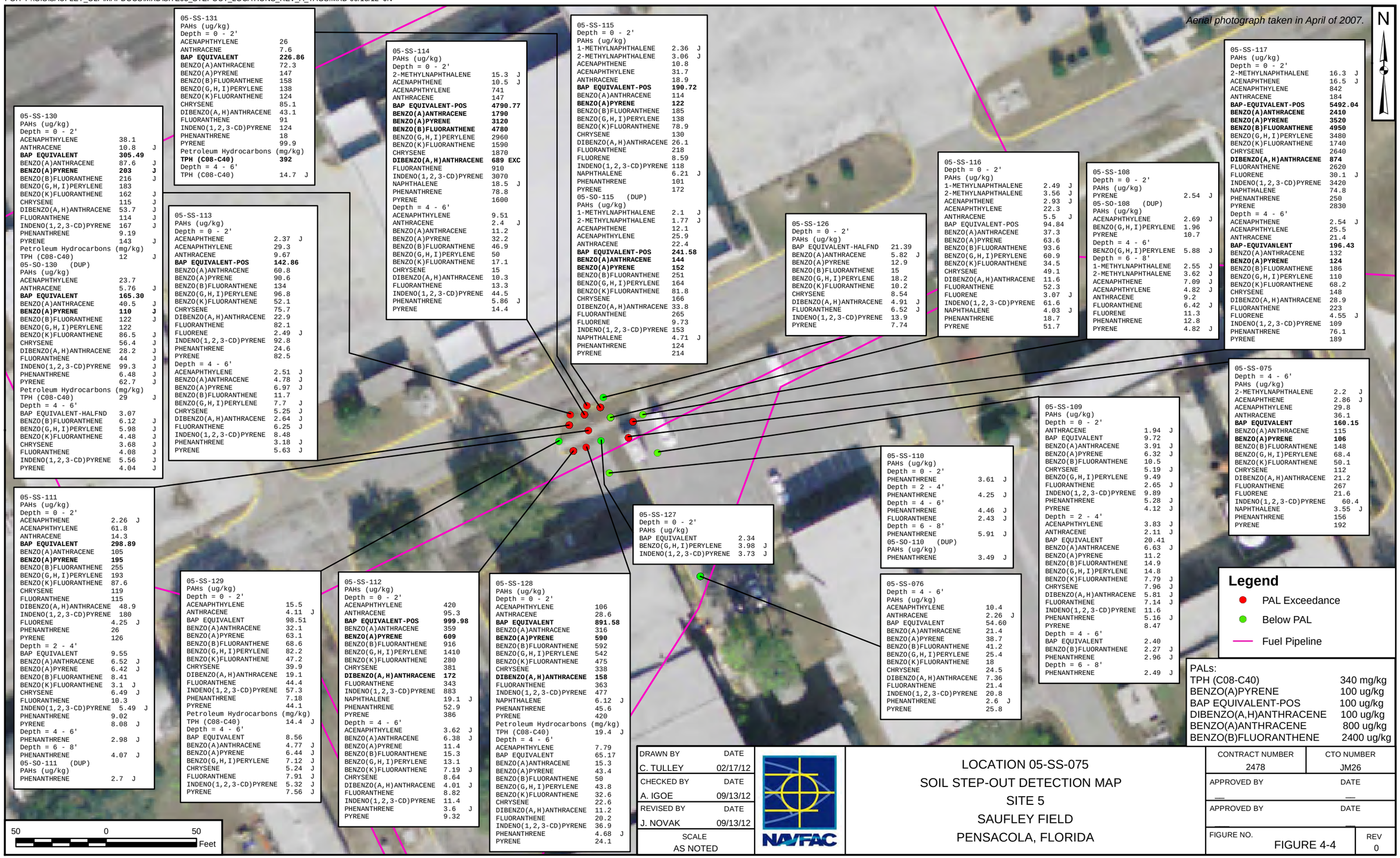

| DRAWN BY | DATE |
|---|---|
| C. TULLEY | 02/15/12 |
| CHECKED BY | DATE |
| A. IGOE | 09/13/12 |
| REVISED BY | DATE |
| J. NOVAK | 09/13/12 |
| SCALE | |
| AS NOTED | |

NAVFAC

LOCATION 05-SS-068
SOIL STEP-OUT DETECTION MAP
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2478 | JM26 |
| APPROVED BY | DATE |
| | |
| APPROVED BY | DATE |
| | |
| FIGURE NO. | REV |
| FIGURE 4-3 | 0 |

PGH P:\GIS\SAUFLEY_OLF\MAPDOCS\MXD\SITE05_STEPOUT_LOCATIONS_REV_A_TAGS.MXD 09/13/12 JN




05-SS-130
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| ACENAPHTHYLENE | 38.1 | |
| ANTHRACENE | 10.8 | J |
| **BAP EQUIVALENT** | **305.49** | |
| BENZO(A)ANTHRACENE | 87.6 | J |
| **BENZO(A)PYRENE** | **203** | **J** |
| BENZO(B)FLUORANTHENE | 216 | J |
| BENZO(G,H,I)PERYLENE | 183 | |
| BENZO(K)FLUORANTHENE | 162 | J |
| CHRYSENE | 115 | J |
| DIBENZO(A,H)ANTHRACENE | 53.7 | J |
| FLUORANTHENE | 114 | J |
| INDENO(1,2,3-CD)PYRENE | 167 | J |
| PHENANTHRENE | 9.19 | |
| PYRENE | 143 | J |
| Petroleum Hydrocarbons (mg/kg) | | |
| TPH (C08-C40) | 12 | J |
| 05-SO-130 (DUP) | | |
| PAHs (ug/kg) | | |
| ACENAPHTHYLENE | 23.7 | |
| ANTHRACENE | 5.76 | J |
| **BAP EQUIVALENT** | **165.30** | |
| BENZO(A)ANTHRACENE | 40.5 | J |
| **BENZO(A)PYRENE** | **110** | **J** |
| BENZO(B)FLUORANTHENE | 122 | J |
| BENZO(G,H,I)PERYLENE | 122 | |
| BENZO(K)FLUORANTHENE | 86.5 | J |
| CHRYSENE | 56.4 | J |
| DIBENZO(A,H)ANTHRACENE | 28.2 | J |
| FLUORANTHENE | 44 | J |
| INDENO(1,2,3-CD)PYRENE | 99.3 | J |
| PHENANTHRENE | 6.48 | J |
| PYRENE | 62.7 | J |
| Petroleum Hydrocarbons (mg/kg) | | |
| TPH (C08-C40) | 29 | J |
| Depth = 4 - 6' | | |
| BAP EQUIVALENT-HALFND | 3.07 | |
| BENZO(B)FLUORANTHENE | 6.12 | J |
| BENZO(G,H,I)PERYLENE | 5.98 | J |
| BENZO(K)FLUORANTHENE | 4.48 | J |
| CHRYSENE | 3.68 | J |
| FLUORANTHENE | 4.08 | J |
| INDENO(1,2,3-CD)PYRENE | 5.56 | J |
| PYRENE | 4.04 | J |

05-SS-131
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| ACENAPHTHYLENE | 26 | |
| ANTHRACENE | 7.6 | |
| **BAP EQUIVALENT** | **226.86** | |
| BENZO(A)ANTHRACENE | 72.3 | |
| BENZO(A)PYRENE | 147 | |
| BENZO(B)FLUORANTHENE | 158 | |
| BENZO(G,H,I)PERYLENE | 138 | |
| BENZO(K)FLUORANTHENE | 124 | |
| CHRYSENE | 85.1 | |
| DIBENZO(A,H)ANTHRACENE | 43.1 | |
| FLUORANTHENE | 91 | |
| INDENO(1,2,3-CD)PYRENE | 124 | |
| PHENANTHRENE | 18 | |
| PYRENE | 99.9 | |
| Petroleum Hydrocarbons (mg/kg) | | |
| **TPH (C08-C40)** | **392** | |
| Depth = 4 - 6' | | |
| TPH (C08-C40) | 14.7 | J |

05-SS-114
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| 2-METHYLNAPHTHALENE | 15.3 | J |
| ACENAPHTHENE | 10.5 | J |
| ACENAPHTHYLENE | 741 | |
| ANTHRACENE | 147 | |
| **BAP EQUIVALENT-POS** | **4790.77** | |
| **BENZO(A)ANTHRACENE** | **1790** | |
| **BENZO(A)PYRENE** | **3120** | |
| **BENZO(B)FLUORANTHENE** | **4780** | |
| BENZO(G,H,I)PERYLENE | 2960 | |
| BENZO(K)FLUORANTHENE | 1590 | |
| CHRYSENE | 1870 | |
| **DIBENZO(A,H)ANTHRACENE** | **689** | **EXC** |
| FLUORANTHENE | 910 | |
| INDENO(1,2,3-CD)PYRENE | 3070 | |
| NAPHTHALENE | 18.5 | J |
| PHENANTHRENE | 78.8 | |
| PYRENE | 1600 | |
| Depth = 4 - 6' | | |
| ACENAPHTHYLENE | 9.51 | |
| ANTHRACENE | 2.4 | J |
| BENZO(A)ANTHRACENE | 11.2 | |
| BENZO(A)PYRENE | 32.2 | |
| BENZO(B)FLUORANTHENE | 46.9 | |
| BENZO(G,H,I)PERYLENE | 50 | |
| BENZO(K)FLUORANTHENE | 17.1 | |
| CHRYSENE | 15 | |
| DIBENZO(A,H)ANTHRACENE | 10.3 | |
| FLUORANTHENE | 13.3 | |
| INDENO(1,2,3-CD)PYRENE | 44.5 | |
| PHENANTHRENE | 5.86 | J |
| PYRENE | 14.4 | |

05-SS-115
Depth = 0 - 2'
PAHs (ug/kg)

| | | |
|---|---|---|
| 1-METHYLNAPHTHALENE | 2.36 | J |
| 2-METHYLNAPHTHALENE | 3.06 | J |
| ACENAPHTHENE | 10.8 | |
| ACENAPHTHYLENE | 31.7 | |
| ANTHRACENE | 18.9 | |
| **BAP EQUIVALENT-POS** | **190.72** | |
| BENZO(A)ANTHRACENE | 114 | |
| **BENZO(A)PYRENE** | **122** | |
| BENZO(B)FLUORANTHENE | 185 | |
| BENZO(G,H,I)PERYLENE | 138 | |
| BENZO(K)FLUORANTHENE | 78.9 | |
| CHRYSENE | 130 | |
| DIBENZO(A,H)ANTHRACENE | 26.1 | |
| FLUORANTHENE | 218 | |
| FLUORENE | 8.59 | |
| INDENO(1,2,3-CD)PYRENE | 118 | |
| NAPHTHALENE | 6.21 | J |
| PHENANTHRENE | 101 | |
| PYRENE | 172 | |
| 05-SO-115 (DUP) | | |
| PAHs (ug/kg) | | |
| 1-METHYLNAPHTHALENE | 2.1 | J |
| 2-METHYLNAPHTHALENE | 1.77 | J |
| ACENAPHTHENE | 12.1 | |
| ACENAPHTHYLENE | 25.9 | |
| ANTHRACENE | 22.4 | |
| **BAP EQUIVALENT-POS** | **241.58** | |
| **BENZO(A)ANTHRACENE** | **144** | |
| **BENZO(A)PYRENE** | **152** | |
| BENZO(B)FLUORANTHENE | 251 | |
| BENZO(G,H,I)PERYLENE | 164 | |
| BENZO(K)FLUORANTHENE | 81.8 | |
| CHRYSENE | 166 | |
| DIBENZO(A,H)ANTHRACENE | 33.8 | |
| FLUORANTHENE | 265 | |
| FLUORENE | 9.73 | |
| INDENO(1,2,3-CD)PYRENE | 153 | |
| NAPHTHALENE | 4.71 | J |
| PHENANTHRENE | 124 | |
| PYRENE | 214 | |

05-SS-116
Depth = 0 - 2'
PAHs (ug/kg)

| | | |
|---|---|---|
| 1-METHYLNAPHTHALENE | 2.49 | J |
| 2-METHYLNAPHTHALENE | 3.56 | J |
| ACENAPHTHENE | 2.93 | J |
| ACENAPHTHYLENE | 22.3 | |
| ANTHRACENE | 5.5 | J |
| BAP EQUIVALENT-POS | 94.84 | |
| BENZO(A)ANTHRACENE | 37.3 | |
| BENZO(A)PYRENE | 63.6 | |
| BENZO(B)FLUORANTHENE | 93.6 | |
| BENZO(G,H,I)PERYLENE | 60.9 | |
| BENZO(K)FLUORANTHENE | 34.5 | |
| CHRYSENE | 49.1 | |
| DIBENZO(A,H)ANTHRACENE | 11.6 | |
| FLUORANTHENE | 52.3 | |
| FLUORENE | 3.07 | J |
| INDENO(1,2,3-CD)PYRENE | 61.6 | |
| NAPHTHALENE | 4.03 | J |
| PHENANTHRENE | 18.7 | |
| PYRENE | 51.7 | |

05-SS-108
Depth = 0 - 2'
PAHs (ug/kg)

| | | |
|---|---|---|
| PYRENE | 2.54 | J |
| 05-SO-108 (DUP) | | |
| PAHs (ug/kg) | | |
| ACENAPHTHYLENE | 2.69 | J |
| BENZO(G,H,I)PERYLENE | 1.96 | |
| PYRENE | 10.7 | |
| Depth = 4 - 6' | | |
| BENZO(G,H,I)PERYLENE | 5.88 | J |
| Depth = 6 - 8' | | |
| 1-METHYLNAPHTHALENE | 2.55 | J |
| 2-METHYLNAPHTHALENE | 3.62 | J |
| ACENAPHTHENE | 7.09 | J |
| ACENAPHTHYLENE | 4.82 | J |
| ANTHRACENE | 9.2 | |
| FLUORANTHENE | 6.42 | J |
| FLUORENE | 11.3 | |
| PHENANTHRENE | 12.8 | |
| PYRENE | 4.82 | J |

05-SS-117
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| 2-METHYLNAPHTHALENE | 16.3 | J |
| ACENAPHTHENE | 16.5 | J |
| ACENAPHTHYLENE | 842 | |
| ANTHRACENE | 184 | |
| **BAP-EQUIVALENT-POS** | **5492.04** | |
| **BENZO(A)ANTHRACENE** | **2410** | |
| **BENZO(A)PYRENE** | **3520** | |
| **BENZO(B)FLUORANTHENE** | **4950** | |
| BENZO(G,H,I)PERYLENE | 3480 | |
| BENZO(K)FLUORANTHENE | 1740 | |
| CHRYSENE | 2640 | |
| **DIBENZO(A,H)ANTHRACENE** | **874** | |
| FLUORANTHENE | 2620 | |
| FLUORENE | 30.1 | J |
| INDENO(1,2,3-CD)PYRENE | 3420 | |
| NAPHTHALENE | 74.8 | |
| PHENANTHRENE | 250 | |
| PYRENE | 2830 | |
| Depth = 4 - 6' | | |
| ACENAPHTHENE | 2.54 | J |
| ACENAPHTHYLENE | 25.5 | |
| ANTHRACENE | 21.4 | |
| **BAP-EQUIVANLENT** | **196.43** | |
| BENZO(A)ANTHRACENE | 132 | |
| **BENZO(A)PYRENE** | **124** | |
| BENZO(B)FLUORANTHENE | 186 | |
| BENZO(G,H,I)PERYLENE | 110 | |
| BENZO(K)FLUORANTHENE | 68.2 | |
| CHRYSENE | 148 | |
| DIBENZO(A,H)ANTHRACENE | 28.9 | |
| FLUORANTHENE | 223 | |
| FLUORENE | 4.55 | J |
| INDENO(1,2,3-CD)PYRENE | 109 | |
| PHENANTHRENE | 76.1 | |
| PYRENE | 189 | |

05-SS-126
Depth = 0 - 2'
PAHs (ug/kg)

| | | |
|---|---|---|
| BAP EQUIVALENT-HALFND | 21.39 | |
| BENZO(A)ANTHRACENE | 5.82 | J |
| BENZO(A)PYRENE | 12.9 | |
| BENZO(B)FLUORANTHENE | 15 | |
| BENZO(G,H,I)PERYLENE | 18.2 | |
| BENZO(K)FLUORANTHENE | 10.2 | |
| CHRYSENE | 8.54 | |
| DIBENZO(A,H)ANTHRACENE | 4.91 | J |
| FLUORANTHENE | 6.52 | J |
| INDENO(1,2,3-CD)PYRENE | 13.9 | |
| PYRENE | 7.74 | |

05-SS-075
Depth = 4 - 6'
PAHs (ug/kg)

| | | |
|---|---|---|
| 2-METHYLNAPHTHALENE | 2.2 | J |
| ACENAPHTHENE | 2.86 | J |
| ACENAPHTHYLENE | 29.8 | |
| ANTHRACENE | 36.1 | |
| **BAP EQUIVALENT** | **160.15** | |
| BENZO(A)ANTHRACENE | 115 | |
| **BENZO(A)PYRENE** | **106** | |
| BENZO(B)FLUORANTHENE | 148 | |
| BENZO(G,H,I)PERYLENE | 68.4 | |
| BENZO(K)FLUORANTHENE | 50.1 | |
| CHRYSENE | 112 | |
| DIBENZO(A,H)ANTHRACENE | 21.2 | |
| FLUORANTHENE | 267 | |
| FLUORENE | 21.6 | |
| INDENO(1,2,3-CD)PYRENE | 60.4 | |
| NAPHTHALENE | 3.55 | J |
| PHENANTHRENE | 156 | |
| PYRENE | 192 | |

05-SS-113
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| ACENAPHTHENE | 2.37 | J |
| ACENAPHTHYLENE | 29.3 | |
| ANTHRACENE | 9.67 | |
| **BAP EQUIVALENT-POS** | **142.86** | |
| BENZO(A)ANTHRACENE | 60.8 | |
| BENZO(A)PYRENE | 90.6 | |
| BENZO(B)FLUORANTHENE | 134 | |
| BENZO(G,H,I)PERYLENE | 96.8 | |
| BENZO(K)FLUORANTHENE | 52.1 | |
| CHRYSENE | 75.7 | |
| DIBENZO(A,H)ANTHRACENE | 22.9 | |
| FLUORANTHENE | 82.1 | |
| FLUORENE | 2.49 | J |
| INDENO(1,2,3-CD)PYRENE | 92.8 | |
| PHENANTHRENE | 24.6 | |
| PYRENE | 82.5 | |
| Depth = 4 - 6' | | |
| ACENAPHTHYLENE | 2.51 | J |
| BENZO(A)ANTHRACENE | 4.78 | J |
| BENZO(A)PYRENE | 6.97 | J |
| BENZO(B)FLUORANTHENE | 11.7 | |
| BENZO(G,H,I)PERYLENE | 7.7 | J |
| CHRYSENE | 5.25 | J |
| DIBENZO(A,H)ANTHRACENE | 2.64 | J |
| FLUORANTHENE | 6.25 | J |
| INDENO(1,2,3-CD)PYRENE | 8.48 | |
| PHENANTHRENE | 3.18 | J |
| PYRENE | 5.63 | J |

05-SS-110
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| PHENANTHRENE | 3.61 | J |
| Depth = 2 - 4' | | |
| PHENANTHRENE | 4.25 | J |
| Depth = 4 - 6' | | |
| PHENANTHRENE | 4.46 | J |
| FLUORANTHENE | 2.43 | J |
| Depth = 6 - 8' | | |
| PHENANTHRENE | 5.91 | J |
| 05-SO-110 (DUP) | | |
| PAHs (ug/kg) | | |
| PHENANTHRENE | 3.49 | J |

05-SS-109
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| ANTHRACENE | 1.94 | J |
| BAP EQUIVALENT | 9.72 | |
| BENZO(A)ANTHRACENE | 3.91 | J |
| BENZO(A)PYRENE | 6.32 | J |
| BENZO(B)FLUORANTHENE | 10.5 | |
| CHRYSENE | 5.19 | J |
| BENZO(G,H,I)PERYLENE | 9.49 | |
| FLUORANTHENE | 2.65 | J |
| INDENO(1,2,3-CD)PYRENE | 9.89 | |
| PHENANTHRENE | 5.28 | J |
| PYRENE | 4.12 | J |
| Depth = 2 - 4' | | |
| ACENAPHTHYLENE | 3.83 | J |
| ANTHRACENE | 2.11 | J |
| BAP EQUIVALENT | 20.41 | |
| BENZO(A)ANTHRACENE | 6.63 | J |
| BENZO(A)PYRENE | 11.2 | |
| BENZO(B)FLUORANTHENE | 14.9 | |
| BENZO(G,H,I)PERYLENE | 14.8 | |
| BENZO(K)FLUORANTHENE | 7.79 | J |
| CHRYSENE | 7.96 | J |
| DIBENZO(A,H)ANTHRACENE | 5.81 | J |
| FLUORANTHENE | 7.14 | J |
| INDENO(1,2,3-CD)PYRENE | 11.6 | |
| PHENANTHRENE | 5.16 | J |
| PYRENE | 8.47 | |
| Depth = 4 - 6' | | |
| BAP EQUIVALENT | 2.40 | |
| BENZO(B)FLUORANTHENE | 2.27 | J |
| PHENANTHRENE | 2.96 | J |
| Depth = 6 - 8' | | |
| PHENANTHRENE | 2.49 | J |

05-SS-127
Depth = 0 - 2'
PAHs (ug/kg)

| | | |
|---|---|---|
| BAP EQUIVALENT | 2.34 | |
| BENZO(G,H,I)PERYLENE | 3.98 | J |
| INDENO(1,2,3-CD)PYRENE | 3.73 | J |

05-SS-076
Depth = 4 - 6'
PAHs (ug/kg)

| | | |
|---|---|---|
| ACENAPHTHYLENE | 10.4 | |
| ANTHRACENE | 2.26 | J |
| BAP EQUIVALENT | 54.60 | |
| BENZO(A)ANTHRACENE | 21.4 | |
| BENZO(A)PYRENE | 38.7 | |
| BENZO(B)FLUORANTHENE | 41.2 | |
| BENZO(G,H,I)PERYLENE | 25.4 | |
| BENZO(K)FLUORANTHENE | 18 | |
| CHRYSENE | 24.5 | |
| DIBENZO(A,H)ANTHRACENE | 7.36 | |
| FLUORANTHENE | 21.4 | |
| INDENO(1,2,3-CD)PYRENE | 20.8 | |
| PHENANTHRENE | 2.6 | J |
| PYRENE | 25.8 | |

05-SS-111
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| ACENAPHTHENE | 2.26 | J |
| ACENAPHTHYLENE | 61.8 | |
| ANTHRACENE | 14.3 | |
| **BAP EQUIVALENT** | **298.89** | |
| BENZO(A)ANTHRACENE | 105 | |
| **BENZO(A)PYRENE** | **195** | |
| BENZO(B)FLUORANTHENE | 255 | |
| BENZO(G,H,I)PERYLENE | 193 | |
| BENZO(K)FLUORANTHENE | 87.6 | |
| CHRYSENE | 119 | |
| FLUORANTHENE | 115 | |
| DIBENZO(A,H)ANTHRACENE | 48.9 | |
| INDENO(1,2,3-CD)PYRENE | 180 | |
| FLUORENE | 4.25 | J |
| PHENANTHRENE | 26 | |
| PYRENE | 126 | |
| Depth = 2 - 4' | | |
| BAP EQUIVALENT | 9.55 | |
| BENZO(A)ANTHRACENE | 6.52 | J |
| BENZO(A)PYRENE | 6.42 | J |
| BENZO(B)FLUORANTHENE | 8.41 | |
| BENZO(K)FLUORANTHENE | 3.1 | J |
| CHRYSENE | 6.49 | J |
| FLUORANTHENE | 10.3 | |
| INDENO(1,2,3-CD)PYRENE | 5.49 | J |
| PHENANTHRENE | 9.02 | |
| PYRENE | 8.08 | J |
| Depth = 4 - 6' | | |
| PHENANTHRENE | 2.98 | J |
| Depth = 6 - 8' | | |
| PHENANTHRENE | 4.07 | J |
| 05-SO-111 (DUP) | | |
| PAHs (ug/kg) | | |
| PHENANTHRENE | 2.7 | J |

05-SS-129
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| ACENAPHTHYLENE | 15.5 | |
| ANTHRACENE | 4.11 | J |
| BAP EQUIVALENT | 98.51 | |
| BENZO(A)ANTHRACENE | 32.1 | |
| BENZO(A)PYRENE | 63.1 | |
| BENZO(B)FLUORANTHENE | 68.6 | |
| BENZO(G,H,I)PERYLENE | 82.2 | |
| BENZO(K)FLUORANTHENE | 47.2 | |
| CHRYSENE | 39.9 | |
| DIBENZO(A,H)ANTHRACENE | 19.1 | |
| FLUORANTHENE | 44.4 | |
| INDENO(1,2,3-CD)PYRENE | 57.3 | |
| PHENANTHRENE | 7.18 | |
| PYRENE | 44.1 | |
| Petroleum Hydrocarbons (mg/kg) | | |
| TPH (C08-C40) | 14.4 | J |
| Depth = 4 - 6' | | |
| BAP EQUIVALENT | 8.56 | |
| BENZO(A)ANTHRACENE | 4.77 | J |
| BENZO(A)PYRENE | 6.44 | J |
| BENZO(G,H,I)PERYLENE | 7.12 | J |
| CHRYSENE | 5.24 | J |
| FLUORANTHENE | 7.91 | J |
| INDENO(1,2,3-CD)PYRENE | 5.32 | J |
| PYRENE | 7.56 | J |

05-SS-112
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| ACENAPHTHYLENE | 420 | |
| ANTHRACENE | 95.3 | |
| **BAP EQUIVALENT-POS** | **999.98** | |
| BENZO(A)ANTHRACENE | 359 | |
| **BENZO(A)PYRENE** | **609** | |
| BENZO(B)FLUORANTHENE | 916 | |
| BENZO(G,H,I)PERYLENE | 1410 | |
| BENZO(K)FLUORANTHENE | 280 | |
| CHRYSENE | 381 | |
| **DIBENZO(A,H)ANTHRACENE** | **172** | |
| FLUORANTHENE | 343 | |
| INDENO(1,2,3-CD)PYRENE | 883 | |
| NAPHTHALENE | 19.1 | J |
| PHENANTHRENE | 52.9 | |
| PYRENE | 386 | |
| Depth = 4 - 6' | | |
| ACENAPHTHYLENE | 3.62 | J |
| BENZO(A)ANTHRACENE | 6.38 | J |
| BENZO(A)PYRENE | 11.4 | |
| BENZO(B)FLUORANTHENE | 15.3 | |
| BENZO(G,H,I)PERYLENE | 13.1 | |
| BENZO(K)FLUORANTHENE | 7.19 | J |
| CHRYSENE | 8.64 | |
| DIBENZO(A,H)ANTHRACENE | 4.01 | J |
| FLUORANTHENE | 8.82 | |
| INDENO(1,2,3-CD)PYRENE | 11.4 | |
| PHENANTHRENE | 3.6 | J |
| PYRENE | 9.32 | |

05-SS-128
PAHs (ug/kg)
Depth = 0 - 2'

| | | |
|---|---|---|
| ACENAPHTHYLENE | 106 | |
| ANTHRACENE | 28.6 | |
| **BAP EQUIVALENT** | **891.58** | |
| BENZO(A)ANTHRACENE | 316 | |
| **BENZO(A)PYRENE** | **590** | |
| BENZO(B)FLUORANTHENE | 592 | |
| BENZO(G,H,I)PERYLENE | 542 | |
| BENZO(K)FLUORANTHENE | 475 | |
| CHRYSENE | 338 | |
| **DIBENZO(A,H)ANTHRACENE** | **158** | |
| FLUORANTHENE | 363 | |
| INDENO(1,2,3-CD)PYRENE | 477 | |
| NAPHTHALENE | 6.12 | J |
| PHENANTHRENE | 45.6 | |
| PYRENE | 420 | |
| Petroleum Hydrocarbons (mg/kg) | | |
| TPH (C08-C40) | 19.4 | J |
| Depth = 4 - 6' | | |
| ACENAPHTHYLENE | 7.79 | |
| BAP EQUIVALENT | 65.17 | |
| BENZO(A)ANTHRACENE | 15.3 | |
| BENZO(A)PYRENE | 43.4 | |
| BENZO(B)FLUORANTHENE | 50 | |
| BENZO(G,H,I)PERYLENE | 43.8 | |
| BENZO(K)FLUORANTHENE | 32.6 | |
| CHRYSENE | 22.6 | |
| DIBENZO(A,H)ANTHRACENE | 11.2 | |
| FLUORANTHENE | 20.2 | |
| INDENO(1,2,3-CD)PYRENE | 36.9 | |
| PHENANTHRENE | 4.68 | J |
| PYRENE | 24.1 | |

**Legend**
- PAL Exceedance
- Below PAL
- Fuel Pipeline

PALs:

| | |
|---|---|
| TPH (C08-C40) | 340 mg/kg |
| BENZO(A)PYRENE | 100 ug/kg |
| BAP EQUIVALENT-POS | 100 ug/kg |
| DIBENZO(A,H)ANTHRACENE | 100 ug/kg |
| BENZO(A)ANTHRACENE | 800 ug/kg |
| BENZO(B)FLUORANTHENE | 2400 ug/kg |

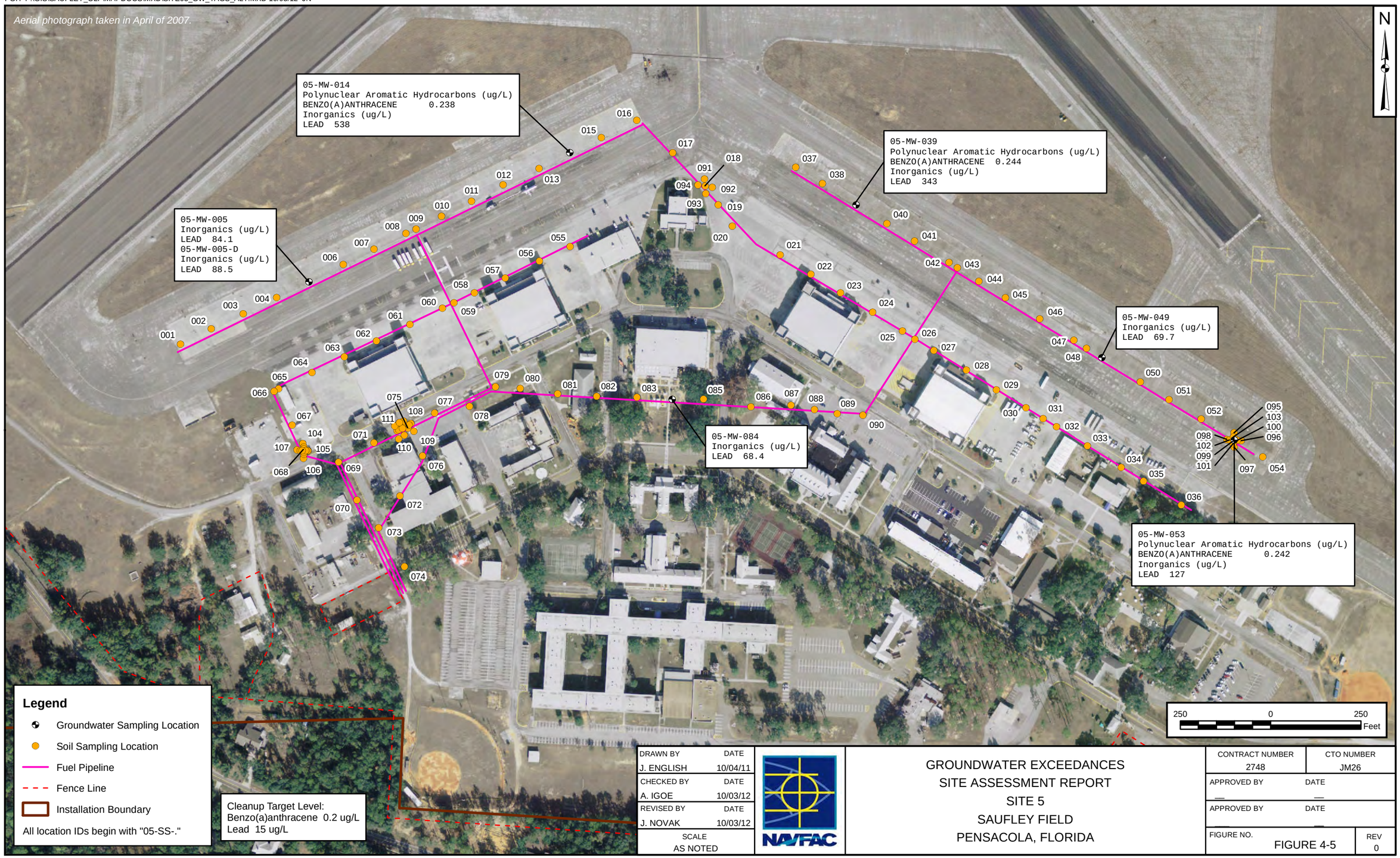
| | |
|---|---|
| DRAWN BY C. TULLEY | DATE 02/17/12 |
| CHECKED BY A. IGOE | DATE 09/13/12 |
| REVISED BY J. NOVAK | DATE 09/13/12 |
| SCALE AS NOTED | |

NAVFAC

LOCATION 05-SS-075
SOIL STEP-OUT DETECTION MAP
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| | |
|---|---|
| CONTRACT NUMBER 2478 | CTO NUMBER JM26 |
| APPROVED BY — | DATE — |
| APPROVED BY — | DATE — |
| FIGURE NO. FIGURE 4-4 | REV 0 |

PGH P:\GIS\SAUFLEY_OLF\MAPDOCS\MXD\SITE05_GW_TAGS_ALT.MXD 10/03/12 JN




| DRAWN BY | DATE |
|---|---|
| J. ENGLISH | 10/04/11 |
| CHECKED BY | DATE |
| A. IGOE | 10/03/12 |
| REVISED BY | DATE |
| J. NOVAK | 10/03/12 |
| SCALE | |
| AS NOTED | |

NAVFAC

GROUNDWATER EXCEEDANCES
SITE ASSESSMENT REPORT
SITE 5
SAUFLEY FIELD
PENSACOLA, FLORIDA

| CONTRACT NUMBER | CTO NUMBER |
|---|---|
| 2748 | JM26 |
| APPROVED BY | DATE |
| — | — |
| APPROVED BY | DATE |
| | — |
| FIGURE NO. | REV |
| FIGURE 4-5 | 0 |

# APPENDIX A

# FIELD LOGBOOK AND CALIBRATION LOGS

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

ALL-WEATHER
# ENVIRONMENTAL FIELD BOOK

Name Tetra Tech NUS

Address 1558 Village Sq. Blvd STE 2
Tallahassee FL 32309

Phone (850) 385-9899

Project Pipeline closure - site assessment : Site 5

This book is printed on "Rite in the Rain" All-Weather Writing Paper. A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

| Page Pattern | | Cover Options | |
|---|---|---|---|
| Left Page | Right Page | Polydura Cover | Fabrikoid Cover |
| Columnar | 1/4" Grid | Item No. 550 | Item No. 550F |

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| PAGE | REFERENCE | DATE |
|---|---|---|

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148 Sampling guidelines (Liquids)
149 Sampling guidelines (Solids)
150 Approximate Volume of Water in Casing or Hole, Ground Water Monitoring Well
151 PVC Pipe casing tables
152 Soil Classification
153 Soil Classification
154 Conversions (Length, Weight, Volume, Temp, etc...)
155 Conversions (Concentrations, Volume/Flow or Time, Velocity, Acceleration)
156 Maximum Concentration of Contaminants for the Toxicity Characteristic

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| PAGE | REFERENCE | DATE |
|---|---|---|
| | | |



Location Pensacola FL Date 3·21·11

Project / Client NAVY Saufley Field Site 05
112G02748, JM26

Crew/Personnel: Melissa Brock (MB) / TL
Zach Scribner (ZS) / TL
Geoff Pope (GP) TL
Scott McGuire (SM) / TL

ATI Drillers: Chad Hall
Mickey Ritter
(GeoProbe, boxtruck trailor)

Weather: sunny, high 85°

Equipment: 2 rental vans FID/PID
cal gas, GPS, hand augers, bowls
spoons, IPA, liquinox, DI $H_2O$,
tape msr, sample kits, baggies

Objective: pipeline closer, site assessment

0745 (EST) crew met @ TLH office
load vans - check list
0815 crew mobes. to P·Cola
1130 crew @ Saufley Field -
meet Tom Cassiatore @ hangers
1135 Geoff Pope called on way
1140 H&S mtg - papers signed
1145 crew begins to mark sample
points on western Rampway

MB

Location Pensacola FL Date 3·21·11

Project / Client NAVY, Saufley Field
Site 5 112G02748 JM26

1245 GP onsite - continue marking points H&S covered
1300 crew continue white-lining sample points
1530 crew drive to pass and tag to meet drillers - P&T closed for day will get passes in morning
1630 crew @ Saufley Field again go over H&S sign HASP drop trailor
1730 crew offsite
1800 EOD for crew

MB



Location Pensacola FL Date 3·22·11

Project / Client NAVY Saufley Field
Site 5 112G02748 JM26

Crew: see pg 3 minus GP
Weather: overcast slight chance of rain 15/20%, high 80°
Equipment: see pg. 3
Objective: obtain permits, begin coring, begin screening

0700 mob to Pass & Tag @ NAS P-Cola
0730 met Scott & drillers - get situated
0830 onsite @ Saufley - MB goes over H&S again see HASP for topics covered
0900 MB tries to call ACC Werner (given name & number by IRBY Eng.) no luck - left msg yesterday w/ military personnel
0930 MB performs drill rig inspection see inspection form for details
1030 Bob Nichol Provides us w/ drill permits
1100 crew set up on SB-001 to begin screening - see logs for all readings & sample logs

MB

Location Pensacola FL Date 3·22·11

Project / Client NAVY Saufley Field
Site 5 112G02748

1200 [note:] 005 014 039 049 084
required pre-designated
GW screening samples if
no contamination present in
soil screenings

1335 crew set up on SB002 see log sht.
1435 @ SB003 see log sheet
1535 @ SB004 see log sheet
1659 ZS collects GPS points as follows.

| location ID | (accuracy) Northing | Easting |
|---|---|---|
| (Ref. point) RP01 (7") | 543761.64 | 1072347.52 |
| 001 (6") | 543926.77 | 1071984.79 |
| 002 (5") | 543971.39 | 1072072.04 |
| 003 (5") | 544013.30 | 1072159.43 |
| 004 (5") | 544057.57 | 1072252.16 |

1700 crew offsite - ship @ Fed Ex
1730 EOD

3·22·11



Location Pensacola FL Date 3·23·11

Project / Client NAVY, Saufley Field
Site 5 112G02748

Crew: see pg 5
Weather: cloudy, hot high 88° F
Equipment: see pg 1
Objective: continue screening / sampling along pipeline on runway

0630 crew onsite - calibrate FID - see cal. log
0640 H&S mtg see HASP for topics covered
0700 set up @ SB005, collecting soil & gw sample
0734 soil sampled for PAH, TRPH, MTBE & BTEX like always
0815 GW screening sample collected for TRPH, PAH, Total Pb., EDB and VOCs
0935 move to SB006 see logsheets
* note collected equip blank 01 @ 0720 from tubing used for GW screening *
1020 move to SB007 see logsheets
1108 move to SB008 see logsheets
1145 lunch & GPS see next pg.

Location Pensacola FL Date 3.23.11

Project / Client NAVY. Saufley Field Site 5
112G02748

| location ID | (" accuracy) | Northing (ft) | Easting |
|---|---|---|---|
| 005 | (4") | 544101.26 | 1072341.84 |
| 006 | (4") | 544148.86 | 1072435.72 |
| 007 | (4") | 544192.30 | 1072521.81 |
| 008 | (4") | 544236.20 | 1072610.78 |

1240 move to SB009 see log sheets
1335 move to SB010 see log sheets
1400 move to SB011 see log sheets
1452 Empirical - Brian Richard - called about shipping additional coolers
1500 @ SB012 see log sheet

| location ID | (" accuracy) | Northing (ft) | Easting |
|---|---|---|---|
| 009 | (8") | 544248.02 | 1072639.54 |
| 010 | (8") | 544283.22 | 1072709.32 |
| 011 | (8") | 544324.45 | 1072792.08 |
| 012 | (8") | 544370.42 | 1072879.62 |

1530 crew drill bit for concrete shot - drill crew offsite to RSC to get new one
1540 crew pack coolers for shipment @ FedEx
1650 secure site - offsite
1700 FedEx EOD

MB



Location Pensacola FL Date 3.24.11

Project / Client NAVY, Saufley Field
Site 5 112G02748

Crew: see pg. 5
Equip: see pg. 3
Weather: chance of rain ~ 20%
high around 79°
Objective: continue soil core screen, sample, GW sample

0630 crew onsite
0700 drillers onsite
0715 H&S mtg held - set up on 013 see log sheets
0830 @ 014 see log sheet - collect GW sample @ 50'
0928 @ 015 see log sheet
1040 @ 016 see log sheet
1118 @ 017 see log sheet
1220 @ 018 see log sheet
1330 Hydraulic line blew on rig called Geoff Pope & Greg Campbell to notify
1338 continue boring advancement w/ hand augers @ 019
1500 crew of drillers continue working on rig
1530 drill crew offsite for parts

Location Pensacola FL Date 3·24·11

Project / Client NAVY Saufley Field
Site 5, 112G02748

| Location ID | Northing (ft.) (accuracy) | Easting |
|---|---|---|
| 013 | 544415.18 | 1072977.87 |
| 014 | 544458.82 | 1073062.51 |
| 015 | 544501.46 | 1073151.88 |
| 016 | 544548.97 | 1073249.02 |
| 017 | 544458.43 | 1073347.20 |
| 018 | 544367.38 | 1073439.79 |
| 019 | 544312.61 | 1073477.10 |

1630 crew pack/ship coolers @ FedEx

1700 EOD

3·24·11



Location Pensacola FL Date 3·25·11

Project / Client NAVY, Saufley Field
Site 5 112G02748

Crew: see pg 5
Weather: sunny breezy high 82°F
Equip: see pg 3
Objective: continue sampling soil/GW screen

0700 crew met onsite - fixed DPT rig, deconned rig, held H2S mtg., cal. FID see sheet
1100 @ SB020 see log sheet
1140 ~~1220~~ @ SB021 see log sheet
1215 MB offsite to get IRBY dig permits
1315 @ SB022 see log sheet
1430 ~~1330~~ @ SB023 see log sheet
1500 ~~1450~~ @ SB024 see log sheet
1540 ~~1500~~ @ SB025 see log sheet
1610 @ SB026 see log sheet

| Location ID | Northing (accuracy 9") | Eastings |
|---|---|---|
| 020 | 544255.49 | 1073514.49 |
| 021 | 544173.66 | 1073646.95 |
| 022 | 544120.71 | 1073728.47 |
| 023 | 544070.83 | 1073812.55 |
| 024 | 544017.12 | 1073902.26 |
| 025 | 543966.21 | 1073984.14 |
| 026 | 543942.63 | 1074019.10 |

Location Pensacola FL Date 3·~~26~~ 25·11

Project / Client NAVY Saufley Field
Site 5 112G02748

~~Crew see pg 5~~

1715 crew pack cooler for SAT. delivery

1730 @ FedEx

1800 EOD

3·25·11



Location Pensacola FL Date 3·26·11

Project / Client NAVY Saufley Field
Site 5 112G02748

Crew: see pg 5
Weather: cloudy chance of rain 30%
high 82°
Equipment: see pg. 3
Objective: continue coring/backfill holes

0700 crew onsite
0730 H&S mtg
0800 crew begin coring
0815 @ 027
0840 @ 028
0900 @ 029 – metalic debris coming up in shavings - crew stops coring - MB will call IRBY Eng. on Monday to get them to see if we are near some pipeline that did not get marked?! A fire hydrant in w/in 10ft of the boring but has no markings - Drillers won't continue @ 029 until the area is marked
0940 MB & ZS go down to

Location Persacola FL Date 3·26·11

Project / Client NAVY Saufley Field
Site 5 , 112G02748

Fire Fighting Station (FF) to all if they have schematic of hydrant pipelines

1020 FF have no drawings
1030 crew sets up on 030
1050 bit for coring breaks/is shot (4")
1100 drillers mobe to store
1230 no stores have part - must wait until tomorrow/Monday to get part
1300 crew proceed to fill previous weeks borings w/ grout/concrete restore to existing grade
1500 crew offsite - EOD

3·26·11



Location Persacola FL Date 3·27·11

Project / Client NAVY Saufley Field
Site 5 112G02748

Crew: see pg (5)
Weather: cloudy humid chance of rain 30/40% high 80° F
Equipment: see pg (3)
Objective: continue coring

0800 crew onsite drillers have no luck getting 4" bit @ any stores
0900 crew decides to core w/ 10" bit - setup on 030
0930 rig won't start
0945 drillers offsite to get parts for rig
1010 drillers back onsite fix rig
1015 continue coring cored 030-036 (7 total)
1700 crew offsite EOD

Location Pensacola FL Date 3.28.11

Project / Client NAVY Saufley Field

Crew: see pg 5

Weather: sunny chance of rain 20%
high 85°F

Equipment: see pg 3

Objective: continue soil/GW screen sample

0700 crew onsite - H&S mtg. held - set up on 027

1130 crew sampled 027 - 036 (minus 029) see log sheets for details and COC

1300 crew move to points in grass

1400 crew set up @ SB066

1640 collected 066, 068, 069 see log sheet / COC

1645 pack coolers for shipment

1700 @ Fed Ex

1730 end of Day



Location Date

Project / Client

GPS Points Coordinates

| Location ID | Northing | Easting |
|---|---|---|
| 036 | 543482.15 | 1074756.56 |
| 035 | 543549.79 | 1074652.03 |
| 034 | 543586.62 | 1074590.82 |
| 033 | 543647.56 | 1074496.74 |
| 032 | 543697.80 | 1074412.23 |
| 031 | 543721.69 | 1074374.28 |
| 030 | 543751.08 | 1074327.67 |
| 028 | 543858.18 | 1074162.43 |
| 027 | 543911.63 | 1074071.78 |

Location Pensacola FL Date 3·29·11

Project / Client NAVY, Saufley Field
Site 5, 112G02748

Crew: see pg (5)
Weather: overcast chance rain 40%
high 81°F
Equip: see pg (3)
Objective: continue soil/gw screen & sample

0700 crew onsite H&S mtg
0710 set up @ SB070 see log sheet for details
note crew could only sample locations in grass since both core bits were shot and MB decided it would be best since markings in grass might fade over 4 day interim period.
1600 crew completed total of 13 borings/1 gw screen for day
1630 crew pack cooler for ~~sp~~ shipment @ FedEx
1645 offsite
1700 @ FedEx EOD



Location Pensacola FL Date 3·30·11

Project / Client NAVY, Saufley Field
Site 5, 112G02748

Crew: see pg (5)
Weather: T-storms rain high 75°
Equip: see pg (3)
Objective: plan activities for next shift, secure site

0700 crew discuss activities for next shift
0730 raining (rained all night) no work can be done today
0800 drillers secure site and load rig - mobe offsite
0830 MB calls GP
0900 leave for Tallahassee
1300 EOD @ TLH

MB
3·30·11

Location Pensacola FL Date 4.4.11

Project / Client NAVY, Saufley Field
Site 5 112G02748

Crew: TH: Melissa Brock (MB)
Yarissa Martinez (YM)
Scott MaGuire (SM)
ATI: Mr. Bauer (B)
Walter Hall (WH)

Equipment: see pg. 3
Weather: sunny high 89°F
Objective: begin Shift 2 of soil & GW screen/sample

0430 (EST) YM/MB mobe from TLH to P-Cola
0730 (CST) MB @ Pass & Tag - YM picking up supplies
0800 MB calls WH - his car is having trouble @ DMV
note SM mobing from Tampa
1030 still no word from drillers and no work has/can be done - MB left msg. on WH phone around 0945
1220 WH calls he will be be @ pass & tag as soon as possible



Location Pensacola FL Date 4.4.11

Project / Client NAVY Saufley Field
Site 5, 112G02748

1245 crew met up w/ drillers @ P&T
1300 mobe to Saufley Field
1325 inspect rig - H&S forms MB went over HASP items - crew sign log
1400 crew sample 065 064, 063 @ 2-4' bls screen see log sheets or CoC for details
MB ~~WH~~ 1700 offsite to fedex to ship cooler
1730 @ FedEx
1800 @ Hotel - coolers arrived charge equip. EOD

MB
4.4.11

Location Pensacola FL Date 4.5.11

Project / Client NAVY, Saufley Field
Site 5, 112G02748

Crew: see pg 20
Weather: windy, cool, high 60's
Equipment: see pg 3
Objective: continue soil/GW screen and sample

0630 mobe to site
0700 H&S mtg held
0720 calibrated FID see log sheet
0800 begin cor.ng/sampling 062, 061, 060, 059, 058
1130 lunch
1215 return set up on 057 056, 055 see log sheets for all details
1600 pack cooler for shipment
1630 @ Fed Ex drop coolers
1700 EOD



Location Pensacola FL Date 4.6.11

Project / Client NAVY, Saufley Field
Site 5, 112G02748

Crew: see pg 20
Weather: cool high 70, breezy
Equipment: see pg 3
Objective: continue soil/GW screen and sample

0630 mobe to site
0700 onsite
0730 H&S mtg
0745 calibrated FID see log sheet
0800 set up on 037 see log sheets for all details or COCs
1500 crew completed borings 37 38 39 40 41 42 43 44 see logs/COC for details
1601 Rig auxillary bearings shot no more work can be done - crew pack/ship cooler
1630 Drillers take rig offsite to work on - drillers will call later
1730 EOD

Location Pensacola FL Date 4.7.11

Project / Client NAVY Saufley Field
Site 5, 112G02748

Crew: See pg. 20
Weather: cloudy, high 70°
Equipment: see pg. 3
Objective: rig down, 1/2 day backfilling

0700 crew met onsite - drillers called - they are going to work on the rig
0930 the bearing in the auxillery is broken as suspected - they are ordering the part - will be overnighted for tomorrow
1245 crew/drillers backfill old borings: top off previously grouted borings
1500 GP calls MB to discuss the possibility of the "Govn't shutdown"
1530 Base access will be able to be gained however GP will let MB know if RPMS will allow work



Location Pensacola FL Date 4.7.11

Project / Client NAVY Saufley Field
Site 5 112G02748

1630 ~~1600~~ EOD offsite @ hotel

4.7.11

Location Pensacola FL Date 4.8.11

Project / Client NAVY, Saufley Field
Site 5, 112G02748

Crew: see pg 20
Weather: cloudy 20% chance rain high 70's
Equipment: see pg 3
Objective: continue sampling soil/GW

0800 MB gets call from drillers they are fixing rig now + should be onsite by 9am
0830 leave hotel for site
0849 onsite - wait to escort drillers
1030 Drillers fixed rig - onsite
1045 H&S mtg - MB calibrat FID see log sheet
set up on 045 - see log sheet/COC for all details
1645 crew completed borings 045, 046, 047, 048, 049, & 050
049 got GW screening see COC & log sheets for all details
1700 crew packs coolers for FedEx
1730 @ FedEx
1815 EOD



Location Pensacola FL Date 4.9.11

Project / Client NAVY, Saufley Field
Site 5, 112G02748

Crew: see pg 20
Weather: cloudy 20% chance rain high 80° F
Equipment: see pg 3
Objective: backfill & core ahead of selves

0830 make to site
0900 onsite H&S mtg.
* Note: to date 3 55 gal. drums have been generated contents: decon $H_2O$ *
1630 crew offsite after coring 17 cores in asphalt/concrete

4.9.11

Location Pensacola FL Date 4·10·11

Project / Client NAVY, Saufley Field
Site 05, 112G02748

Crew: see pg 20
Equipment: see pg 3
Weather: mostly cloudy high 85°F
Objective: continue sample soil/GW

1130 crew mobe to site cal FID
1200 onsite - H&S mtg. set up on 051
1515 crew done w/ 051, 052, 053 (>3000 FID reading) 053 GW screen & 054
1545 set up on 029 see log/coc sheet for all details
1730 completed 051, 052, 053 054, 029, 090, 089, & 088
1800 crew secure site and prep for possible rain tomorrow
1845 offsite
1915 @ Hotel EOD

MB



Location Pensacola FL Date 4·11·11

Project / Client NAVY, Saufley Field
Site 05, 112G02748

Crew: see pg 20
Equipment: see pg 3
Weather: chance of rain 40% cloudy, high 80°F
Objective: continue soil/GW sample

0630 mobe to site
0700 onsite H&S mtg - cal. FID, set rig up
0845 set up on 067 (see logsheet)
0930 Bob Nichol calls MB he went to location 053 and saw stepout sample locations - he verbally told MB that we could proceed to advance borings under the existing permits —
1600 collected 067, 75, 76, 71, 72, 77, 91, 92, 93, & 94 see log sheet for details pack cooler ship @ FedEx
1630 EOD

MB
4·11·11

Location Pensacola FL Date 4·12·11

Project / Client NAVY, Saufley Field
Site 05 112G02748

Crew: see pg. 20
Equip.: see pg. 3
Weather: cool breezey high 78° F
Objective: complete soil/GW screening

0630 onsite
0700 crew readies equipment/rig/
FID calibrated see logsheet
H&S mtg topics covered
0750 set up on SB095
1000 complete 95 96 97 & 98 see
log sheets for details
- collect IDW sample for
PAH, TRPH, MTBE & BTEX
1030 pack cooler for shipment
@ FedEx - YM moves to Tally
1150 drillers offsite to get
more portland grout
1315 drillers call their truck
broke down
1600 drillers onsite in rental truck
(after theirs got towed - to be
fixed by tomorrow)
1615 continue backfilling



Location Pensacola FL Date 4·12·11

Project / Client NAVY Saufley Field
Site 05, 112G02748

1800 crew offsite MB moves to
Tally - SM stays night
and will escort drillers
tomorrow to pick up their
rig/trailor
2130 MB EOD

4·12·11

Location Pensacola FL Date 4·13·11

Project / Client NAVY, Saufley Field Site 05, 112G02748

0800 @ Tallahassee - MB goes to warehouse to offload equip.
0900 @ office ship equipment
0930 begin paperwork organizing and scanning/saving
1000 @ P-Cola site 05 - drillers get trailer and demobilize. SM mobilizes home to Tampa.



Location Date

Project / Client

# EXCAVATION PERMIT
## NAVAL AIR STATION PENSACOLA

Revised Excavation Permit 9OCT 2007

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| **PERMIT NO: 11-321** | **DATE: 3/15/2011** | **SPONSOR** |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>1 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**
**SIGNATURE:** ON FILE **DATE:**
*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**
For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**
Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)** ON FILE
Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***
**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**
Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.
Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**
Date Located: _____
Contact Irby Engineering at 452-5525 x3339/3340.
Comments:
Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE
For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____
*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: 3-22-11
Comments: NO NAVY CABLE
**SIGNATURE:** [signature]

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**
**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**
Comments:
**SIGNATURE:** [signature] 3-22-11 **DATE:**

011 70

# EXCAVATION PERMIT
## NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| PERMIT NO: 11-322 | DATE: 3/15/2011 | SPONSOR |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>2 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**

**SIGNATURE:** ON FILE **DATE:**

*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS [illegible] RINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**

For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**

Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**

Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***

**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**

Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.

Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**

Date Located: _____

Contact Irby Engineering at 452-5525 x3339/3340.

Comments:

Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE

For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____

*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: 3·22·11

Comments: NO NAVY CABLE

**SIGNATURE:** [signature]

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**

**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**

Comments:

**SIGNATURE:** [signature] **DATE:** 3·22·11

NASPNCLAINST 11010.3

31194

# EXCAVATION PERMIT
# NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| PERMIT NO: 11-323 | DATE: 3/15/2011 | SPONSOR |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>3 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807,.808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**

**SIGNATURE:** ON FILE **DATE:**

*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**

For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** ON FILE **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**

Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

ON FILE

**SIGNATURE:** **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**

Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***

**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**

Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.

Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**

Date Located: _____

Contact Irby Engineering at 452-5525 x3339/3340.

Comments:

Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE

For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____

*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____

Comments: NO NAVY CABLE

**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**

**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**

Comments:

**SIGNATURE:** Bl Rich **DATE:**

# EXCAVATION PERMIT
# NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| PERMIT NO: 11-324 | DATE: 3/15/2011 | SPONSOR |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>4 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martinez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**

**SIGNATURE:** ON FILE **DATE:**

*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS INTEGRITY OF MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**

For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**

Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**

Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***

**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**

Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.

Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**

Date Located: _____

Contact Irby Engineering at 452-5525 x3339/3340.

Comments:

Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE

For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____

*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _3/24/2011_____

Comments: Cable Marked When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed.

**SIGNATURE:** Brian C. Beasley

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**

**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:** 3-25-11

Comments:

NASPNCLAINST 11010.3

31196

# EXCAVATION PERMIT
## NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| PERMIT NO: 11-325 | DATE: 3/15/2011 | SPONSOR |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>5 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**
**SIGNATURE:** ON FILE **DATE:**
*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**
For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**
Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**
Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***
**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**
Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.
Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**
Date Located: _____
Contact Irby Engineering at 452-5525 x3339/3340.
Comments:
Electrical/Oround Electronics Present: YES / NO **SIGNATURE:** ON FILE
For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____
*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____
Comments: NO NAVY CABLE
**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**
**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**
Comments:
**SIGNATURE:** [signature] 3-25-11 **DATE:**

# EXCAVATION PERMIT
# NAVAL AIR STATION PENSACOLA

[redacted]

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| PERMIT NO: 11-326 | DATE: 3/15/2011 | SPONSOR |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>6 of 12<br>BLDG 804 AREA | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martinez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**
**SIGNATURE:** ON FILE **DATE:**
*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**
For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**
Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY**
ON FILE
**SIGNATURE:** **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**
Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***
ON FILE
**SIGNATURE:** **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**
Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.
Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***
**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**
Date Located: _____
Contact Irby Engineering at 452-5525 x3339/3340.
Comments:
ON FILE
Electrical/Ground Electronics Present: YES / NO **SIGNATURE:**_____
For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____
*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _3/24/2011____
Comments: Cable Marked. When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed.
**SIGNATURE:** Brian C. Beasley

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**
ON FILE
**SIGNATURE :** **DATE:**

**FINAL PERMIT APPROVAL:**
Comments:
Bob Neff 3-25-11

NASPNCLAINST 11010.3

31148

# EXCAVATION PERMIT
## NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| **PERMIT NO: 11-327** | **DATE: 3/15/2011** | **SPONSOR** |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>7 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**
**SIGNATURE:** ON FILE **DATE:**
*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**
For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**
Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**
**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**
Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***
**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**
Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.
Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***
**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**
Date Located: _____
Contact Irby Engineering at 452-5525 x3339/3340.
Comments:
Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE
For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____
*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____
Comments: NO NAVY CABLE
**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**
**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**
Comments:
**SIGNATURE:** Bl Nick **DATE:** 3-25-11

31144

# EXCAVATION PERMIT
## NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| PERMIT NO: 11-328 | DATE: 3/15/2011 | SPONSOR |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>8 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**

**SIGNATURE:** ON FILE **DATE:**

*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**

For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**

Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

ON FILE

**SIGNATURE:** **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**

Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***

ON FILE

**SIGNATURE:** **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**

Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.

Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

ON FILE

**SIGNATURE:** **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**

Date Located: _____

Contact Irby Engineering at 452-5525 x3339/3340.

ON FILE

Comments:

Electrical/Ground Electronics Present: YES / NO **SIGNATURE:**_____

For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____

*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____

Comments: no NAVY CABLE

**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**

**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**

Comments:

3-25-11

**SIGNATURE:** B. L. Nill **DATE:**

31200

# EXCAVATION PERMIT
# NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| **PERMIT NO: 11-329** | **DATE: 3/15/2011** | **SPONSOR** |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>9 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**
**SIGNATURE:** ON FILE **DATE:**
*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**
For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**
Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**
Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***
**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**
Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.
Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**
Date Located: _____
Contact Irby Engineering at 452-5525 x3339/3340.
Comments:
Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE
For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____
*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____
Comments: No Navy cable
**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**
**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**
Comments:
**SIGNATURE:** B L Nichol **DATE:** 3-25-11

31201

# EXCAVATION PERMIT
# NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| **PERMIT NO: 11-330** | **DATE: 3/15/2011** | **SPONSOR** |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>10 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**

**SIGNATURE:** ON FILE **DATE:**

*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS [redacted]NGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**

For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**

Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**

Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***

**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**

Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.

Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**

Date Located: _____

Contact Irby Engineering at 452-5525 x3339/3340.

Comments:

Electrical/Ground Electronics Preseut: YES / NO **SIGNATURE:** ON FILE

For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____

*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNIGATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____

Comments: NO NAVY CABLE

**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**

**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**

Comments:

**SIGNATURE:** [signature] 3-25-11 **DATE:**

31202

# EXCAVATION PERMIT
# NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| PERMIT NO: 11-331 | DATE: 3/15/2011 | SPONSOR |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>11 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martinez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**
**SIGNATURE:** ON FILE **DATE:**
*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**
For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**
Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**
Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***
**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**
Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.
Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***
**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**
Date Located: _____
Contact Irby Engineering at 452-5525 x3339/3340.
Comments:
Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE
For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____
*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____
Comments: NO NAVY CABLE
**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**
**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**
Comments:
**SIGNATURE:** Bel Rifl **DATE:** 3-25-11

31203

# EXCAVATION PERMIT
# NAVAL AIR STATION PENSACOLA

[redacted]

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| **PERMIT NO: 11-332** | **DATE: 3/15/2011** | **SPONSOR** |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling<br>Saufley Field – Site 5<br><br>12 of 12 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Hangars 807, 808, 809 & 810, Bldg. 2434 & 845 | **2a. NAME:**<br>**Greg Campbell**<br>**PHONE#: 452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: At least 90 borings will be conducted to investigate the former fuel lines.<br>Proposal Start Date: 3/21/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 500' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martínez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**

**SIGNATURE:** ON FILE **DATE:**

*** THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS ***

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**

For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 073106765 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**

Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**

Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***

**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**

Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.

Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**

Date Located: _____

Contact Irby Engineering at 452-5525 x3339/3340.

Comments:

Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE

For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____

*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____

Comments: NO NAVY CABLE

**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**

**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:**

Comments:

**SIGNATURE:** Bel [illegible] **DATE:** 3-25-11

# EXCAVATION PERMIT
# NAVAL AIR STATION PENSACOLA

Revised Excavation Permit 9OCT2007

An excavation permit must be obtained prior to any excavation on board Naval Air Station Pensacola, to include NOLF Bronson, Corry Station, and Saufley Field. **This permit must be displayed on the job site at all times.** To obtain a permit, fill out blocks 1-4, below, attach a site plan and other appropriate documentation, and submit this form to Heather Daniel at Irby Engineering (850) 452-5525 x3312. Instructions are on the second page of this form

| PERMIT NO: 11-370 | DATE: 4/01/2011 | SPONSOR |
|---|---|---|
| **1. PROJECT TITLE**<br>Title: Groundwater and Soil Sampling – stepout samples<br>Saufley Field – Site 5 | **2. PROJECT LOCATION**<br>Street Address: Saufley Field<br>Nearest Intersection: Runway, McKinnon St & Easterwood St.<br>Nearest Building: Between Hangars 808 & 809 | **2a. NAME:**<br>**Greg Campbell**<br><br>**PHONE#:**<br>**452-3131 x3007** |
| **3. PROJECT DESCRIPTION**<br>Detailed Descriptions: Step out samples in a 40 feet radius on 018<br>Proposal Start Date: 4/08/2011 Duration: 30 days<br>Machinery: Drilling Rig and DPT Rig<br>Depth: 0 to 50' Width: 400' Length: 500'<br>Drawing Attached: Yes | **4. REQUESTOR INFORMATION**<br>Name: Yarissa Martinez / Melissa Brock<br>Command/Company: Tetra Tech NUS<br>E-Mail Address: Yarissa.Martinez@tetratech.com / Melissa.Brock@tetratech.com<br>Phone: 850 385 9899 FAX: 850 385 9860<br>Cel: 787-300-9119 | |

**5. NASP REAL PROPERTY MANAGEMENT DIVISION (Steven Ward 452-3131 x 3024)**

SIGNATURE: DATE:

* THIS PERMIT WILL REMAIN VALID AS LONG AS CONTRACTOR MAINTAINS UTILITY MARKINGS *

**6. COMMERICAL AND OTHER UTILITIES CLEARANCE**

For AT&T, Gulf Power and Mediacom contact Sunshine State One-Call at **1-800-432-4770** between two and five days prior to the excavation.

**Ticket Number:** 091102439 **TIME:** **DATE:**

**7. NASP ARCHEOLOGICAL REVIEW (Carrie Williams Bourgeois 452-3131 x 3011 or Bill Taylor 452-3131 x3001)**

Comments: **DESPITE THE FACT THAT NO KNOWN ARCHAEOLOGICAL RESOURCES HAVE BEEN IDENTIFIED IN THE PROJECT AREA OF POTENTIAL EFFECTS (APE), THE CONTRACTOR IS ADVISED TO BE VIGILANT AND CONTACT THIS OFFICE IMMEDIATELY IN THE EVENT OF INADVERTENT ARCHAEOLOGICAL DISCOVERY.**

**SIGNATURE:** ON FILE **DATE:**

**8. NASP ENVIRONMENTAL REVIEW (Greg Campbell 452-3131 x3007)**

Comments: *** PROTECT ALL TREES ADJACENT TO SITE ***

**SIGNATURE:** ON FILE **DATE:**

**9. NASP SAFETY REVIEW (Dodie Matlock 452-3100 x1442 )**

Contact for all projects to ensure a competent person has been assigned to each excavation and provide standard operating procedures for excavation. Contractors have the ultimate responsibility to ensure compliance with applicable OSHA on their project.

Comments: *** EXCAVATION 5 FEET AND DEEPER IN DEPTH REQUIRES AN APPROVED EXCAVATION PLAN ***

**SIGNATURE:** ON FILE **DATE:**

**NOTE:** When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed. One mark or flag could identify multiple utilities. Color code markings used are as established by Sunshine State One-Call conventions as provided by RPMD.

**10. UTILITY CLEARANCE** (Utility markings valid for 5 working days.) **Contact SCADA Desk at 452-2271 each day of digging**

Date Located: _____

Contact Irby Engineering at 452-5525 x3339/3340.

Comments:

Electrical/Ground Electronics Present: YES / NO **SIGNATURE:** ON FILE

For Ground Electronics contact NASP at 452-2849 or Sherman Field at 452-3460 if applicable. Date Contacted: _____

*** EXCAVATIONS WITHIN 2 FEET OF MARKED UTILITIES MUST BE HAND DUG UNTIL UTILITIES ARE FULLY EXPOSED ***

**11. BASE COMMUNICATIONS OFFICER (BCO) – Fiber Optic Cable and Navy Telephone Clearance** Date Located: _____

Comments: CABLE MARKED

When locating services have revealed a concentration of telephone cables and or utilities in areas where excavation operations will be performed, a trench greater than the depth of the intended work, six (6) feet to either side and perpendicular to the intended line of work shall be hand dug to verify that all cables and or utilities in this area have been properly located and or identified. Machine excavation in areas of concentration shall not be undertaken until hand-digging operations have completed.

**SIGNATURE:** ON FILE

**12. FIRE INSPECTION BUREAU (Steven Burke 452-2898)**

**SIGNATURE :** ON FILE **DATE:**

**FINAL PERMIT APPROVAL:** Bd Nutt 4-6-11

NASPNCLAINST 11010.3

## Equipment Inspection Checklist for Drill Rigs

**Company:** ATI

**Unit/Serial No#:** 7760

**Inspection Date:** 3/22/11 **Time:** 09:50

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

**Project Name:** Saufley Field Site 5

**Project No#:** 112G02748

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

**Equipment Inspection Checklist for Drill Rigs**
**Page 2**

**Unit/Serial No#:**_____ **Inspection Date:** 3 / 22 / 1

| 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<br>(cable size 5/16 – 5/8 = 3 clips minimum)<br>(cable size 3/4 – 1 inch = 4 clips minimum)<br>(cable size 1 1/8 – 1 3/8 inch = 5 clips minimum) | |

**Equipment Inspection Checklist for Drill Rigs**
**Page 3**

**Unit/Serial No#:**_____ **Inspection Date:** 3 / 22 / 11

| Yes | No | NA | Requirement | Comments |
|---|---|---|---|---|
| | | | Power cable and/or hoist cable | |
| ☑ | ☐ | ☐ | • Reduction in Rope diameter π<br>(5/16 wire rope>1/64 reduction nominal size -replace)<br>(3/8 to 1/2 wire rope>1/32 reduction nominal size-replace)<br>(9/16 to 3/4 wire rope>3/64 reduction nominal size-replace) | |
| ☐ | ☑ | ☐ | • Number of broken wires<br>(6 randomly broken wires in one rope lay)<br>(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#:**_____ **Inspection Date:** 3 / 22/11

| Yes | No | NA | Requirement | Comments |
|---|---|---|---|---|
| | | | PPE Required for Drill Rig Exclusion Zone | |
| ☒ | ☐ | ☐ | • Hardhat | |
| ☒ | ☐ | ☐ | • Safety glasses | |
| ☒ | ☐ | ☐ | • Work gloves | |
| ☒ | ☐ | ☐ | • Chemical resistant gloves_____ | |
| ☒ | ☐ | ☐ | • Steel toed Work Boots | |
| ☐ | ☑ | ☐ | • Chemical resistant Boot Covers | |
| ☐ | ☑ | ☐ | • Apron | |
| ☐ | ☑ | ☐ | • Coveralls Tyvek, Saranex, cotton)_____ | |
| | | | Other Hazards | |
| ☒ | ☐ | ☐ | • Excessive Noise Levels? 25 dBA | |
| ☒ | ☐ | ☐ | • Chemical hazards (Drilling supplies - Sand, bentonite, grout, fuel, etc.) | |
| ☒ | ☐ | ☐ | - MSDSs available? | |
| ☐ | ☐ | ☐ | • Will On-site fueling occur | |
| ☐ | ☐ | ☐ | - Safety cans available? | |
| ☐ | ☐ | ☐ | - Fire extinguisher (Type/Rating -_____) | |

Approved for Use ☒ Yes ☐ No ☐ See Comments

Site Health and Safety Officer

Operator

## Equipment Inspection Checklist for Drill Rigs

**Company:** ATI

**Unit/Serial No#:** 660

**Inspection Date:** 4/14/11 **Time:** 14:15

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

**Project Name:** Saufley Field Site 5

**Project No#:** 112G02748

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

**Unit/Serial No#:**_____ **Inspection Date:** ____/____/____

| 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<br>(cable size 5/16 – 5/8 = 3 clips minimum)<br>(cable size 3/4 – 1 inch = 4 clips minimum)<br>(cable size 1 1/8 – 1 3/8 inch = 5 clips minimum) | |

**Unit/Serial No#:**_____ **Inspection Date:** ____/____/____

| Yes | No | NA | Requirement | Comments |
|---|---|---|---|---|
| | | | Power cable and/or hoist cable | |
| ☐ | ☐ | ☑ | • Reduction in Rope diameter π<br>(5/16 wire rope>1/64 reduction nominal size -replace)<br>(3/8 to 1/2 wire rope>1/32 reduction nominal size-replace)<br>(9/16 to 3/4 wire rope>3/64 reduction nominal size-replace) | |
| ☐ | ☐ | ☑ | • Number of broken wires<br>(6 randomly broken wires in one rope lay)<br>(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#:**_____ **Inspection Date:** ____/____/____

| Yes | No | NA | Requirement | Comments |
|---|---|---|---|---|
| | | | PPE Required for Drill Rig Exclusion Zone | |
| ☑ | ☐ | ☐ | • Hardhat | |
| ☑ | ☐ | ☐ | • Safety glasses | |
| ☑ | ☐ | ☐ | • Work gloves | |
| ☐ | ☐ | ☑ | • Chemical resistant gloves_____ | |
| ☑ | ☐ | ☐ | • Steel toed Work Boots | |
| ☐ | ☐ | ☑ | • Chemical resistant Boot Covers | |
| ☐ | ☐ | ☑ | • Apron | |
| ☐ | ☐ | ☑ | • Coveralls Tyvek, Saranex, cotton)_____ | |
| | | | Other Hazards | |
| ☑ | ☐ | ☐ | • Excessive Noise Levels? 75 dBA | |
| ☑ | ☐ | ☐ | • Chemical hazards (Drilling supplies - Sand, bentonite, grout, fuel, etc.) | |
| ☑ | ☐ | ☐ | - MSDSs available? | |
| ☐ | ☑ | ☐ | • Will On-site fueling occur | |
| ☐ | ☐ | ☑ | - Safety cans available? | |
| ☑ | ☐ | ☐ | - Fire extinguisher (Type/Rating -_____ _ ) | |

Approved for Use ☑ Yes ☐ No ☐ See Comments

Site Health and Safety Officer

Operator

Tetra Tech NUS, Inc.

# EQUIPMENT CALIBRATION LOG

PROJECT NAME : Saufley Field

SITE NAME: Site 5

PROJECT No.: 112G02748

INSTRUMENT NAME/MODEL: microFID

MANUFACTURER: Eagle Instruments

SERIAL NUMBER: CZ-EF-216

| 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 | | |
| 3.22.11 | N/A | MB | — | — | N/A | 95.0 | BAL-150-A-95-2 | 95 ppm Span Gas |
| 3.23.11 | " | " | — | — | 192.4 | 94.9 | " | methane |
| 3.24.11 | " | " | — | — | 82.1 | 95.0 | " | " |
| 3.25.11 | " | " | — | — | — | 94.5 | " | " |
| MB ~~3.26.11~~ | — | — | — | — | — | — | — | — |
| 3.28.11 | " | " | — | — | — | 94.8 | " | " |
| 3.29.11 | " | " | — | — | — | 95.0 | " | " |
| | | | | | | | | |
| 4.4.11 | " | " | — | — | — | 94.9 | " | 95 ppm methane |
| 4.5.11 | " | " | — | — | — | 95.1 | " | span gas |
| 4.6.11 | " | " | — | — | — | 94.8 | " | " |
| 4.7.11 | " | " | — | — | — | 95.0 | " | " |
| 4.8.11 | " | " | — | — | — | 94.8 | " | " |
| 4.10.11 | " | " | — | — | — | 94.9 | " | " |
| 4.11.11 | " | " | — | — | | 94.9 | " | " |
| 4.12.11 | " | " | — | — | — | 95.0 | " | " |

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 3·22·11 | **ARRIVAL TIME:** | 0845 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1700 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Chad Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| Soil Borings | 3 | 1111 | 0 | 4 |
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COMMENTS: Utility locators did not give Tt dig permits until 1100 (SB001 - SB004)

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 3·22·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 3·23·11 | **ARRIVAL TIME:** | 0630 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1730 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Chad Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil borings | 6 | ~~IIII~~ III | 4 | 8 |
| GW screening (SB005) | 1 | 1 | ~~0~~ | 1 |
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COMMENTS: (SB005-012 GW @ 005)

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 3·23·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 3·24·11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1630 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Chad Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil borings | 6 | ~~IIII~~ 11 | 12 | 19 |
| GW screening | 1 | 1 | 1 | 2 |
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COMMENTS: (013-019) GW @ 014 rig hydraulic hose blew @ 019 - went into town for parts

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 3·24·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 3 25·11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | |
| **CONTRACTOR:** | ATI | **DRILLER:** | Chad Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil borings | 6 | ~~HH~~ 11 | 19 | 26 |
| GW screening | ~~0~~ | ~~0~~ | 2 | 2 |
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COMMENTS: fixed rig, deconned rig, inspected (SB020-026)
decon pad set up

APPROVED BY:

M Brock

Tt NUS REPRESENTATIVE

Chad Hall

DRILLER

DATE: 3·25·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 3·26·11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1500 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Chad Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | Θ | Θ | 26 | 26 |
| GW screen | Θ | Θ | 2 | 2 |
| coring | 10 | 4 | Θ | 4 |
| boring completion (concrete fill) | 26 | 26 | Θ | 26 |
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COMMENTS: drill bit / core bit shot - mobilized to stores to get replacement no luck w/ bit so crew fills old borings by grouting and matching to previous grade!

APPROVED BY: M. Brock

Tt NUS REPRESENTATIVE

DRILLER

DATE: 3·26·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 3·27·11 | **ARRIVAL TIME:** | 0830 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | |
| **CONTRACTOR:** | ATI | **DRILLER:** | Chad Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 4 | 0 | 26 | 26 |
| GW screen | 0 | 0 | 2 | 2 |
| coring | 10 | 7 | 4 | 7 |
| boring completion | 0 | 0 | 26 | 26 |
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COMMENTS: 0830 crew onsite - unable to start rig working to fix DPT - got replacement part back onsite @0945 begin coring w/ 10" bit - could not get 4" (cored 030-036)

APPROVED BY: M Brock

Tt NUS REPRESENTATIVE

Chad Hall

DRILLER

DATE: 3.27.11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 3·28·11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1700 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Chad Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil borings | 10 | ~~IIII~~ ~~IIII~~ II | 26 | 38 |
| GW screen | 1 | 0 | 2 | 2 |
| coring | ~~0~~ | ~~0~~ | 7 | 7 |
| backfill | 10 | 12 | 26 | 38 |
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COMMENTS: SB027-036, 066, 068, 069 (no 029)

APPROVED BY: M Brock

Tt NUS REPRESENTATIVE

DRILLER

DATE: 3·28·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 3·29·11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | |
| **CONTRACTOR:** | ATI | **DRILLER:** | Chael Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 10 | ~~IIII~~ ~~IIII~~ III | 38 | 51 |
| GW Screen | 1 | 1 | 2 | 3 |
| coring | 0 | ⊖ | 7 | 7 |
| backfill | 10 | ~~IIII~~ II | 38 | 51 |
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COMMENTS: SB070, D073, 074, 078, 079, 080, 081, 082, 083, 084, 085, 086, 087
GW screen @ 084

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 3·29·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4.4.11 | **ARRIVAL TIME:** | onsite 1500 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1830 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Walter Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 7 | 3 | 51 | 54 |
| GW Screen | 0 | 0 | 3 | 3 |
| backfill | 7 | 3 | 51 | 54 |
| coring | 0 | 0 | 7 | 7 |
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COMMENTS:

APPROVED BY: M Brock

Tt NUS REPRESENTATIVE

DRILLER

DATE: 4/4/11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4·5·11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1630 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Walter Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 6 | ~~IIII~~ III | 54 | 62 |
| GW screen | Ø | Ø | 3 | 3 |
| backfill | 6 | ~~IIII~~ III | 54 | 8 |
| core | Ø | Ø | 7 | 7 |
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COMMENTS:

APPROVED BY: MBrock

Tt NUS REPRESENTATIVE

Walter Hall

DRILLER

DATE: 4·5·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4.6.11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1700 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Walter Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 10 | ~~IIII~~ III | 62 | 70 |
| GW screen | 1 | 1 | 3 | 4 |
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COMMENTS:

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 4.6.11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

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|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4.7.11 | **ARRIVAL TIME:** | 1200 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1600 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Walter Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| Soilboring | ⊖ | ⊖ | 70 | 70 |
| GW Screen | ⊖ | ⊖ | 4 | 4 |
| backfill/ grout | 19 | 19 | 51 | 70 |
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COMMENTS:

APPROVED BY:

MBrock

Tt NUS REPRESENTATIVE

DRILLER

DATE: 4.7.11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4.8.11 | **ARRIVAL TIME:** | 1045 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1730 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Walter Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| Soil boring | 8 | ~~IIII~~ 1 | 70 | 76 |
| GW screen | 1 | 1 | 5 | 5 |
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COMMENTS: Fixing rigin AM

APPROVED BY:

MBrock

Tt NUS REPRESENTATIVE

DRILLER

DATE: 4.8.11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4.9.10 | **ARRIVAL TIME:** | 0900 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1700 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Walter Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 0 | 0 | 76 | 76 |
| GW | 0 | 0 | 5 | 5 |
| CORING | 18 | 17 | 0 | 17 |
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COMMENTS:

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 4.9.10

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

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|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4·10·11 | **ARRIVAL TIME:** | 1130 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | |
| **CONTRACTOR:** | ATI | **DRILLER:** | Walter Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 6 | ~~IIII~~ III | 76 | 84 |
| GW | 0 | ~~IIII~~ I | 5 | ~~8~~ 6 |
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COMMENTS:

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 4·10·11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

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|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4.11.11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | 1600 |
| **CONTRACTOR:** | ATI | **DRILLER:** | Watterhall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 8 | ~~IIII~~ ~~IIII~~ | 84 | 94 |
| GW | 0 | 0 | 6 | 6 |
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COMMENTS:

APPROVED BY:

Tt NUS REPRESENTATIVE

DRILLER

DATE: 4.11.11

Tetra Tech NUS, Inc.

# DAILY ACTIVITIES RECORD

| | | | |
|---|---|---|---|
| **PROJECT NAME:** | Saufley Field Site 5 | **PROJECT NUMBER:** | 112G02748 |
| **CLIENT:** | Navy | **LOCATION:** | Pensacola FL |
| **DATE:** | 4·12·11 | **ARRIVAL TIME:** | 0700 |
| **Tt NUS PERSONNEL:** | Melissa Brock | **DEPARTURE TIME:** | |
| **CONTRACTOR:** | ATI | **DRILLER:** | Walter Hall |

| ITEM | QUANTITY ESTIMATE | QUANTITY TODAY | PREVIOUS TOTAL QUANTITY | CUMULATIVE QUANTITY TO DATE |
|---|---|---|---|---|
| soil boring | 4 | 4 | 94 | 98 |
| GW | 0 | → | 6 | 6 |
| backfill | 20 | 20 | 78 | 98 |
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COMMENTS:

APPROVED BY: B Cork

Tt NUS REPRESENTATIVE

Walter Hall

DRILLER

DATE: 4·12·11

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ____ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3-21-11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | ✓ |
| 1 FID | | | ✓ |
| 2 | | | |
| 3 | | | |
| 4 | | | ✓ |
| Calibration logs filled out | ✓ | | ✓ |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | | ✓ | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | | | ✓ |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

waiting on IRBY Eng. (Bob Nichol) to give us dig permits

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3·22·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ most | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MMB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ____ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3.23.11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | (most) | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ____ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3·24·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | | | |

Hydraulic line blew, getting fixed tonight

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3·25·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MMS

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3·26·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place | ✓ | | |
| (OSHA poster, hospital route, key phone numbers, etc.) | | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | | | ✓ |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3·27·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | ✓ | | |
| 1 FID | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | | | ✓ |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | | | ✓ |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3-28-11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3.29.11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 3-30-11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | | | ✓ |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | | | ✓ |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | | | ✓ |
| Samples properly packaged/shipped | | | ✓ |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

Rained - no work done just set up next shift secure site demob.

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** ____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4·4·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | N/A |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

1/2 day for drillers - didn't show up until 1245

MPS

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** ____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4.5.11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MBS

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ____ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4.6.11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

Rigs auxillery ball bearing broke

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4·7·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | | | ✓ |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | | | ✓ |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | | | ✓ |
| Samples properly packaged/shipped | | | ✓ |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

1/2 day for drillers backfilling

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4.8.11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place | ✓ | | |
| (OSHA poster, hospital route, key phone numbers, etc.) | | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4.9.11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | ✓ |
| 1 FID | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | | | ✓ |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | - |
| Field forms complete and accounted for/properly filed | | | ✓ |
| Samples properly packaged/shipped | | | ✓ |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4·10·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place | ✓ | | |
| (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

053 HOT - need step out samples (95-98)
* Call Irby to see if permit is good or need new one.
MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ___ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4·11·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place | ✓ | | |
| (OSHA poster, hospital route, key phone numbers, etc.) | | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ____ Geoff Pope

**JOB #:** _112G02748
**DATE:** 4·12·11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | ✓ | | |
| 1 FID | ✓ | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

Driller Truck broke down, should be offsite tomorrow

MP

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

# Tetra Tech NUS, Inc.

**PROJECT:** _____ Saufley Field Site 5
**LOCATION:** _____ Pensacola Florida
**PROJECT MANAGER:** ____ Geoff Pope

**JOB #:** _ 112G02748
**DATE:** 4/13/11
**FOL:** _____ Melissa Brock

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | ✓ | | |
| 1 FID | | | |
| 2 | | | X |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | | | X |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | | | X |
| Samples properly packaged/shipped | | | X |
| COCs faxed to appropriate in-house personnel | | | x |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | | X | |
| Site properly secured | ✓ | | |

Drillers get trailer, mobilize to their homes

End of Job

MB

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

Location Pensacola FL Date 4·13·11

Project / Client NAVY, Saufley Field Site 05, 112G02748

0800 @ Tallahassee - MB goes to warehouse to offload equip.
0900 @ office ship equipment
0930 begin paperwork organizing and scanning/saving
1000 @ P-Cola site 05 - drillers get trailer and demobilize. SM mobilizes home to Tampa.



Location P-Cola FL Date 7/7/11

Project / Client Navy, Saufley Field Site 05, 112G02748

1700 - Yarissa Martinez (YM) IH and Melissa Brock (MB) IH arrive onsite
1705 - H&S - heat, alarm, hospital slip trip fall, PPE
1710 - crew make with white marking paint addition - al sampling step out locations for upcoming addtl. field work
1800 - submit (electronically) utility/excavation permit application
1805 EOD @ Saufley

MB
7-7-11

Location Pensacola FL Date 7.30.11

Project / Client Navy, Saufley Field
Site 05, Additional Field Work
112G02748

Crew: Melissa Brock (Tt) "MB"
Yarissa Martinez (Tt) "YM"
Preferred: C. Burger CB
P. Burger PB
Donnie

Equipment: track mounted Geoprobe
DPT, FID, cal gas, bottle
ware, GPS

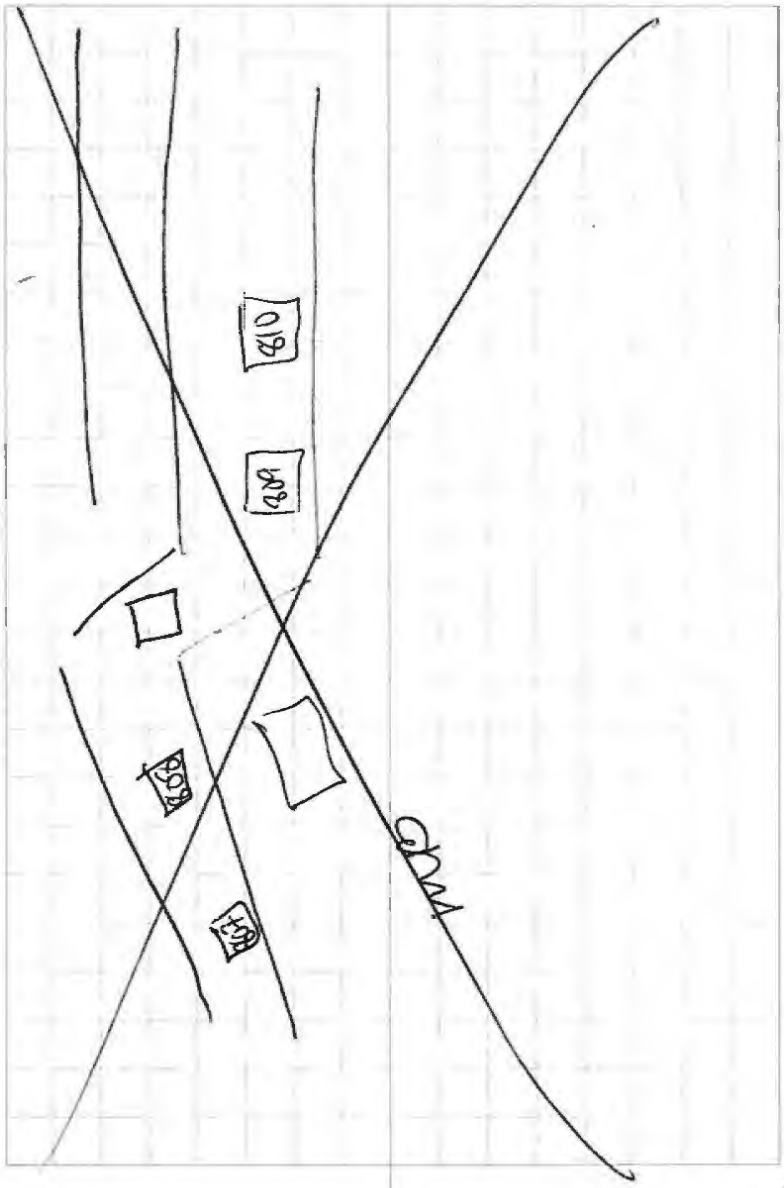
Objective: Collect additional
step out samples @ 053,
068, 075

0730 mobilize to site
0800 crew onsite (minus YM)
0805 H&S reviewed
0815 crew set up @ 053
see logsheets, COC
and sample sheets for
details
1300 crew finishes w/ sampling
and screening (see cal.
sheet)
1330 crew begin to patch up
borings and pack up



Location Date

Project / Client



Location Pensacola FL Date 7·30·11

Project / Client Navy Saufley Field 112G02746

Sites 05, Additional Field Work

Field Daily Signature

Chris Burger
C.B.
13 borings 45 samples
@ Saufley Field (1 day)

Chris Burger
C.B.
19 borings
@ Corry Station (5 days)

C.B.

1500 YM & MB GPS locations and repack samples. to be held over weekend for ship/delivery to lab on Monday Samples collected for PAH and TRPH (no pres.) in 1 8oz. glass jar placed on ice (see COC for details) QA, Dups

1645 crew offsite

1700 @ Hotel - paperwork

1750 EOD

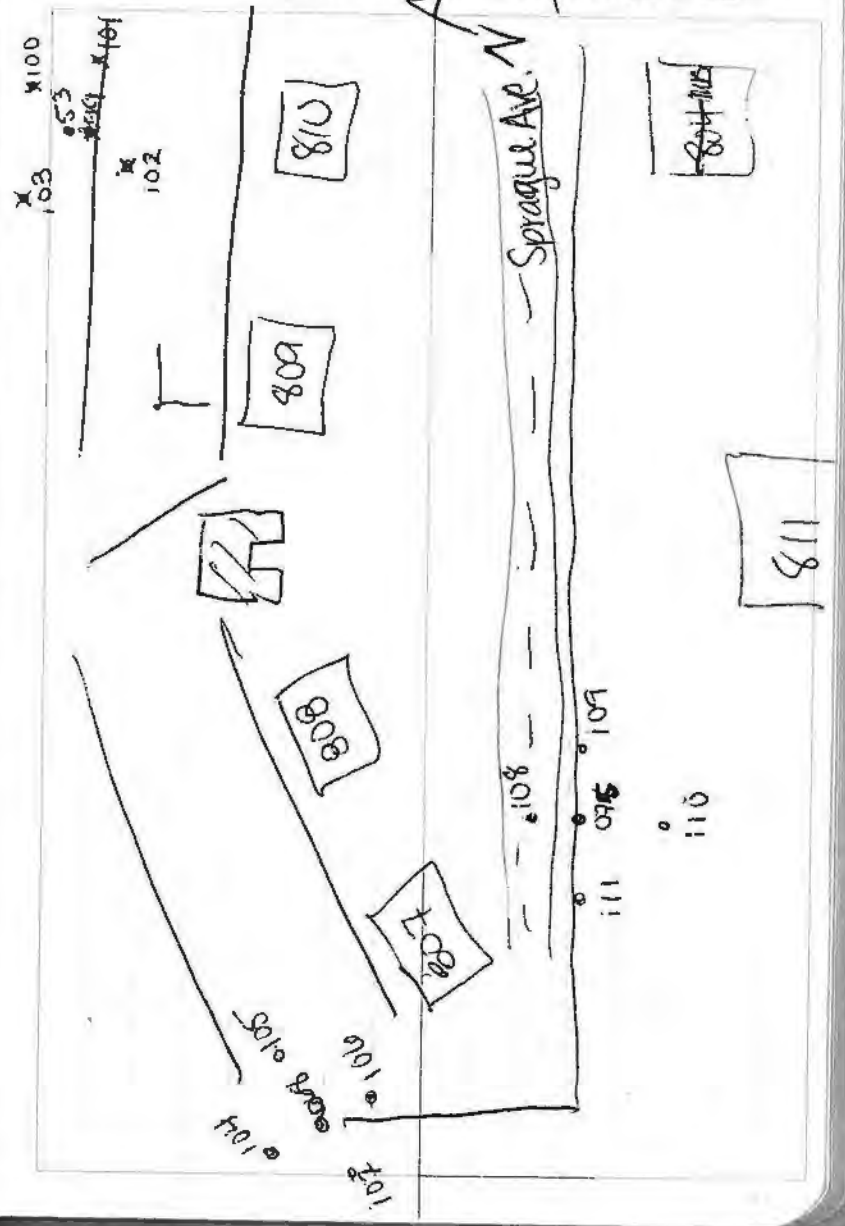
MB



Location Date

Project / Client

MAP of Step OUTS



# Tetra Tech NUS, Inc.

**PROJECT:** Saufley Field Site 5 **JOB #:** 112G02748
**LOCATION:** Pensacola, FL **DATE:** 12/6/11
**PROJECT MANAGER:** Geoff Pope **FOL:** Amber Joyce

## DAILY ACTIVITIES CHECKLIST

### Startup Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Pertinent site activities/information entered into site logbook | ✓ | | |
| All onsite personnel listed in logbook | ✓ | | |
| Required medical information onsite for all workers (TtNUS and Subcontractors) | ✓ | | |
| Required MSDS's onsite | ✓ | | |
| Proper equipment calibrations performed (list equipment) | ✓ | | |
| 1 FID | | | |
| 2 Multi Rae | | | |
| 3 | | | |
| 4 | | | |
| Calibration logs filled out | ✓ | | |
| Tailgate H&S meeting held prior to beginning field activities | ✓ | | |
| Required work permits filled out/signed | ✓ | | |
| Required utility clearances obtained | ✓ | | |
| Required PPE onsite and in use | ✓ | | |
| Information required to be posted is in place (OSHA poster, hospital route, key phone numbers, etc.) | ✓ | | |

### Exit Checklist

| Activity | Yes | No | N/A |
|---|---|---|---|
| Logbooks completely and comprehensively filled out | ✓ | | |
| Field forms complete and accounted for/properly filed | ✓ | | |
| Samples properly packaged/shipped | ✓ | | |
| COCs faxed to appropriate in-house personnel | ✓ | | |
| All equipment accounted for, on charge if needed, and properly secured | ✓ | | |
| All personnel accounted for | ✓ | | |
| Arrangements made for upcoming work (permits, clearances, equipment, etc.) | ✓ | | |
| Site properly secured | ✓ | | |

Note - not all items listed apply to every job, and some additional requirements may apply on a job-specific basis.

Location Pensacola, FL Date 11/22/11

Project / Client Navy Saufley Field Site 5
1126-02748

0730 Ambe Igue, Tetra Tech ℘ left office to pick up rental car and supplies for the field

0930 AI left tallahassee

1200(CST) AI arrived @ Site 5 to white line @ boring location 53, 68 and 75

1335 AI left Saufley Field to perform a drum inventory @ NAS Pensacola. End of Day

11/22/11



Location Pensacola FL Date 12/6/11

Project / Client Navy, Saufley Field Site 5

Weather: Overcast, humid ≈ 60°

Personnell: Ambe Igue TENus
Alex Murphy " "
JD Spalding " "
Terry Orson Singley Driving
Dustin Lambert " "

Equipment: Multi Rae LEL, FID, glass bowls, steel spoons, bucket augers and mason jars

Objective: Collect step out samples from 4-6' @ location SD-068, collect 6 0-2' step out samples north and west of SD-075 and SD-111 along with 4 samples from 4-6' to be immediately analyzed @ lab and two additional samples from 4-6' to be held for analysis. Core existing concrete (5 spots) @ location SD-053 backfill and grout

0630 AI + AM met @ trucks, AM secured day pass.

0730 Met Singley @ NAS Pensacola to pick up their day pass

0800 Onsite Saufley Field

Location Pensacola FL Date 12/6/11

Project / Client Navy 1126 02748

Saufley Field Site 5

HASP + rig inspection conducted + site walk over performed

0818 Began set up to core SO-053 location AM calibrated equipment.

Coring Readings

| Boring ID | CO | H2S | OXY | LEL |
|---|---|---|---|---|
| center-53 | 0 ppm | 0.0 ppm | 20.9% | 0% |
| | 21428 cts | 965 cts | 303 cts | 923 cts |
| 103 | 0 ppm | 0.0 ppm | 20.9% | 0% |
| | 21429 | 965 | 304 | 923 cts |
| 100 | 0 ppm | 0.0 ppm | 20.9% | 0% |
| | 21431 | 965 | 385 | 923 |
| 101 | 0 ppm | 0.0 ppm | 20.9% | 0% |
| | 21427 | 965 | 305 | 923 |
| 102 | 0 ppm | 0.0 ppm | 20.9% | 0% |
| | 21420 | 965 | 306 | 923 |

Borings backfilled w/ clean sand native soil ~2 ft bls and backfilled to ~1 inch bls and then grouted. Borings marked w/ yello w asterisk

1031 Setup @ Building 807 for soil sampling

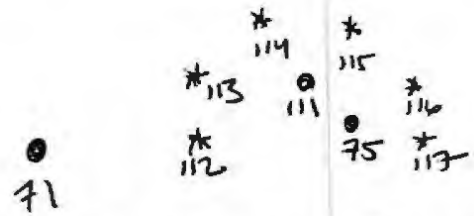


Location Pensacola FL Date 12/6/11

Project / Client 1126 02748 Navy

Saufley Field Site 5

1059 set up @ 112 location collected 0-2' + 4-6' bls sample




1104 collect 112 0-2' sample

1128 collected 112 4-6' sample

1137 collected 113 0-2' sample

1146 collected 113 4-6' sample

1156 collected 114 0-2' sample

1203 collected 114 4-6' sample

1216 collected 115 0-2' sample MS/MSD FD120611 01

1228 collected 115 4-6' sample

1234 collected 116 0-2' sample

1244 collected 116 4-6 sample

1256 collected 117 0-2' sample

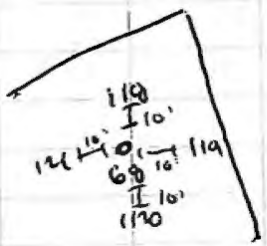
1310 collected 117 0-4' sample

1240 FD120611 01 rinsate blank collected

Location Pensacola FL Date 12/6/11

Project / Client Navy 1126 02740
Saufley Field Site 5

1328 Set up on Location 0-68. Soil
1345 Sample 118 is 10 feet north, of 68
1356 Sample ~~118~~ 119 is 10 feet east of 68
1403 Sample 120 is 10 feet south of 68
1409 sample 121 is 10 feet west of 68
All samples 4-6' bls
Collected sample 118
MS/MSD FD 12061102




concrete parking lot

Building 807

The 4-6' bls from locations 116 & 117 were used for analysis
1446 Begin packing samples & decon equipment & secure site
1556 AI left for Fed Ex, JS & Am left for NAS Pensacola
8755 7387 3989 EOD



Location Date

Project / Client

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

| PROJECT NO: | SITE NAME: | PROJECT MANAGER AND PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|
| 112G02748 | Sauley Field Site 5 | Geoff Pope 901-523-4500 | Empirical Brian Richards |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER AND PHONE NUMBER: Amber Jake 850-322-8033 | ADDRESS: 621 Mainstream Drive Suite 270 |
| | | CARRIER/WAYBILL NUMBER: 8755 7397 3939 | CITY, STATE: Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G)

PRESERVATIVE USED

TYPE OF ANALYSIS: SW 8270 PAH

| DATE YEAR 12/6/11 | TIME | SAMPLE ID | MATRIX | GRAB (G) COMP (C) | No. OF CONTAINERS | SW 8270 PAH | | | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/6/11 | 1104 | 05-SS-112-0002 | S | G | 1 | 1 | | | | | | | | |
| | 1129 | 05-SS-112-0406 | S | G | 1 | 1 | | | | | | | | |
| | 1137 | 05-SS-113-0002 | S | G | 1 | 1 | | | | | | | | |
| | 1146 | 05-SS-113-0406 | S | G | 1 | 1 | | | | | | | | |
| | 1156 | 05-SS-114-0002 | S | G | 1 | 1 | | | | | | | | |
| | 1203 | 05-SS-114-0406 | S | G | 1 | 1 | | | | | | | | |
| | 1216 | 05-SS-115-0002 | S | G | 2 | 2 | | | | | | | | |
| | 0000 | ~~05~~ FD120611 01 | S | G | 1 | 1 | | | | | | | | |
| | 1229 | 05-SS-115-0406 | S | G | 1 | 1 | | | | | | | | |
| | 1234 | 05-SS-116-0002 | S | G | 1 | 1 | | | | | | | | |
| | 1240 | FB120611 01 | G | G | 2 | 2 | | | | | | | | |
| | 1244 | 05-SS-116-0406 | S | G | 1 | 1 | | | | | | | | Hold for analysis |
| | 1256 | 05-SS-117-0002 | S | G | 1 | 1 | | | | | | | | |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | | | 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)

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

| PROJECT NO: | SITE NAME: | PROJECT MANAGER AND PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|
| 112G0274 8 | Sowfing Field Site 5 | Geoff Pope 901-523-9502 | Empirical Brian Richards |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER AND PHONE NUMBER | ADDRESS |
| | | Amber Igue 850-322-9033 | 621 Monastery Ave Suite 70 |
| | | CARRIER/WAYBILL NUMBER | CITY, STATE |
| | | 8755 7397 3989 | Nashville TN 37248 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G)

PRESERVATIVE USED

TYPE OF ANALYSIS

| DATE YEAR 12/6/11 | TIME | SAMPLE ID | MATRIX | GRAB (G) COMP (C) | No. OF CONTAINERS | PAH | | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1310 | 05-SS-117-0406 | S | G | 1 | 1 | | | | | | | Hold for analysis |
| | 1345 | 05-SS-119-0406 | S | G | ~~4~~ 3 | ~~4~~ 3 | | | | | | | |
| | 0000 | FD120611 02 | S | G | 1 | 1 | | | | | | | |
| | 1356 | 05-SS-119-0406 | S | G | 1 | 1 | | | | | | | |
| | 1403 | 05-SS-120-0406 | S | G | 1 | 1 | | | | | | | |
| | 1409 | 05-SS-121-0406 | S | G | 1 | 1 | | | | | | | |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | | | 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)

3/99
FORM NO. TtNUS-001

FedEx Express **NEW Package US Airbill**

FedEx Tracking Number 8755 7387 3989

Form ID No. 0215 — Sender's Copy

**1 From** *Please print and press hard.*

Date 12/6

Sender's FedEx Account Number SENDER'S FEDEX ACCOUNT NUMBER ONLY 1525-8551-9

Sender's Name DISTRIBUTION TALLY Phone (850) 385-9899

Company TETRA TECH NUS INC GOVT

Address 1558 VILLAGE SQUARE BLVD STE 2 Dept./Floor/Suite/Room

City TALLAHASSEE State FL ZIP 32309-2748

**2 Your Internal Billing Reference** First 24 characters will appear on invoice. Sanfts Field Site 5 1126 002748 ONAL

**3 To** Recipient's Name Brian Richards Phone (877) 345-1113

Company Empirical Labs

Address 621 Mainstream Drive Suite 270 Dept./Floor/Suite/Room
We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address
Use this line for the HOLD location address or for continuation of your shipping address.

City Nashville State TN ZIP 37228

HOLD Weekday FedEx location address REQUIRED NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0436023626

**The FedEx US Airbill has changed. See Section 4.**
For shipments over 150 lbs., order free FedEx Express Freight US Airbill.

**4 Express Package Service** * To most locations.
NOTE: Service order has changed. Please select carefully.

*Packages up to 150 lbs.* For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

**Next Business Day**

- [x] FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

**2 or 3 Business Days**

- [ ] NEW FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

**5 Packaging** * Declared value limit $500.

- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

**6 Special Handling and Delivery Signature Options**

- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

**Does this shipment contain dangerous goods?** One box must be checked.

- [ ] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

- [ ] Cargo Aircraft Only

**7 Payment** *Bill to:*

Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No. Exp. Date

Total Packages 1 Total Weight* 55 lbs. Total Declared Value* $ ____ .00

*Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms

611

PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE. NO POUCH NEEDED.

---

FedEx
5903 N W ST
PENSACOLA, FL 32505

Location: PNSCE
Device ID: PNSCE-POS1
Employee: 647029
Transaction: 77038578062

FIRST OVERNIGHT
875573873989 55.00 lb (S) 198.81

Scheduled Delivery Date 12/07/2011

Shipment subtotal: 198.81

Total Due: 198.81

FedEx Account: ****5519 198.81

M = Weight entered manually
S = Weight read from scale
T = Taxable item

Subject to additional charges. See FedEx Service Guide at fedex.com for details. All merchandise sales final.

Visit us at: fedex.com
Or call 1.800.GoFedEx
1.800.463.3339

December 6, 2011 4:20:40 PM

FedEx Express **NEW Package US Airbill**

FedEx Tracking Number 8755 7387 3886

Form ID No. 0215 — Sender's Copy

**1 From** *Please print and press hard.*

Date 12/6/11 — Sender's FedEx Account Number SENDER'S FEDEX ACCOUNT NUMBER ONLY 1529-8551-7

Sender's Name DISTRIBUTION TALLY — Phone (850) 385-9899

Company TETRA TECH NUS INC — GOVT

Address 1558 VILLAGE SQUARE BLVD STE 2 — Dept./Floor/Suite/Room

City TALLAHASSEE — State FL — ZIP 32309-2748

**2 Your Internal Billing Reference** First 24 characters will appear on invoice. Saufty Field Site 5 112G002748 OPTIONAL

**3 To** Recipient's Name Pine Environmental — Phone (800) 842-1088

Company

Address 4037 Darling Court — Dept./Floor/Suite/Room — We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address — Use this line for the HOLD location address or for continuation of your shipping address.

City Lilburn — State GA — ZIP 30047

HOLD Weekday — FedEx location address REQUIRED/NOT available for FedEx First Overnight.

HOLD Saturday — FedEx location address REQUIRED/available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

0436023626

**The FedEx US Airbill has changed. See Section 4.**

**4 Express Package Service** * To most locations. NOTE: Service order has changed. Please select carefully.

*Packages up to 150 lbs.* For packages over 150 lbs., use the new FedEx Express Freight US Airbill.

**Next Business Day**

- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☒ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

**2 or 3 Business Days**

- ☐ NEW FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

**5 Packaging** * Declared value limit $500.

☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

**6 Special Handling and Delivery Signature Options**

☐ SATURDAY Delivery — NOT available for: FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

☐ No Signature Required — Package may be left without obtaining a signature for delivery.
☐ Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

**Does this shipment contain dangerous goods?** One box must be checked.

☐ No ☐ Yes As per attached Shipper's Declaration. ☐ Yes Shipper's Declaration not required. ☐ Dry Ice Dry Ice, 6, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box. ☐ Cargo Aircraft Only

**7 Payment** *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

☒ Sender Acct. No. in Section 1 will be billed. ☐ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

FedEx Acct. No. Credit Card No. — Exp. Date

Total Packages 1 — Total Weight 29 lbs. — Total Declared Value $ .00

*Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms

611

PULL AND RETAIN THIS COPY BEFORE AFFIXING TO THE PACKAGE. NO POUCH NEEDED.

---

FedEx

5903 N W ST
PENSACOLA, FL 32505

Location: PNSCE
Device ID: PNSCE-POS1
Employee: 647029
Transaction: 77038582813

| | | |
|---|---|---|
| PRIORITY OVERNIGHT | | |
| 875573873886 | 29.10 lb (S) | 74.72 |
| Scheduled Delivery Date 12/07/2011 | | |
| Bubble Wrap | | |
| 040036128378 | 2 (T) | 5.50 |
| Retail Box- 24x24x24 | | |
| 790363305101 | 1 (T) | 10.50 |
| Peanuts | | |
| 714055578840 | 4 (T) | 20.00 |
| Shipment subtotal: | | 74.72 |
| Merchandise taxable subtotal: | | 36.00 |
| Tax(FL) 6.000% | | 2.16 |
| Tax(County) 1.500% | | 0.54 |
| Total Due: | | 113.42 |
| FedEx Account: ****5519 | | 113.42 |

M = Weight entered manually
S = Weight read from scale
T = Taxable item

Subject to additional charges. See FedEx Service Guide at fedex.com for details. All merchandise sales final. FedEx disclaims all warranties, express or implied, including, without limitation, the implied warranties of merchantability and fitness for a particular purpose. This packaging is sold 'as is' 'with all faults.' By paying for and accepting this packaging, you agree to release and hold FedEx harmless for any claims, suits, disputes or causes of action relating to this packaging as well as any related incidental or consequential damages incurred by you or any other party.

Visit us at: fedex.com
Or call 1.800.GoFedEx
1.800.463.3339

December 6, 2011 4:39:38 PM

Tetra Tech NUS, Inc.

# EQUIPMENT CALIBRATION LOG

PROJECT NAME: Safety Field - Site 5

SITE NAME: Safety Field - Site 5

PROJECT No.: 112G 02748

INSTRUMENT NAME/MODEL: QRAE II / LEL

MANUFACTURER: Pine Env Svcs / QRAE Systems

SERIAL NUMBER: 17605 / 181-115373

| 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 | | |
| 12/6/11 | 17605/181-115373 | A. Murphy | | | CO: 0 ppm | 0 ppm | | Fresh air Calibration |
| | | | | | H2S: 0 ppm | 0 ppm | | " |
| | | | | | OXY: 20.9% | 20.9% | | " |
| | | | | | LEL: 0% | 0% | | " |
| | | | | | ~~CO: 0 ppm~~ | | | ~~MULTIPLE SENSOR CAL.~~ |
| | | | | | ~~H2S 0 ppm~~ | | | ~~"~~ |
| | | | | | ~~OXY: 20.9%~~ | | | ~~"~~ |
| | | | | | ~~LEL: 0%~~ | | | ~~"~~ |
| | | | | | CO: 50 ppm | CO: 50 ppm | 50 | MULTIPLE SENSOR CAL |
| | | | | | H2S: 10 ppm | H2S: 10 ppm | 10 | " |
| | | | | | OXY: 18 % | OXY: 18% | 18 | " |
| | | | | | LEL: 50% | LEL: 50% | 50 | " |

# EQUIPMENT CALIBRATION LOG

PROJECT NAME: Saufley Field - Site 5

SITE NAME: Saufley Field - Site 5

PROJECT No.: 112G02748

INSTRUMENT NAME/MODEL: ~~Photovac MicroFID / Pace Env. Svcs.~~ MicroFID 1/5

MANUFACTURER: Photovac / Pace Env. Svcs.

SERIAL NUMBER: MX396005 / 17221

| Date of Calibration | Person Performing Calibration | Ph Pre/Post | Cond. Pre/Post | Turb. Pre/Post | D.O. Pre/Post | O.R.P Pre/Post | Calibration Standard (Lot No.) | Remarks and Comments |
|---|---|---|---|---|---|---|---|---|
| ~~12/6/2011~~ | ~~A. Murphy~~ | | | | | | | |
| | | INSTRUMENT ~~SETTINGS~~ | | READINGS | CALIBRATION | STANDARD | | REMARKS |
| | | PRE CALIBRATION | POST CALIBRATION | | | | | |
| 12/6/2011 | A. Murphy | 524.3 ppm | 499.7 ppm | | 500 ppm | | METHANE | |
| | | 0.0 ppm | 0.0 ppm | | 0.0 ppm | | AMBIENT AIR | |

**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 Saufley Field, Pensacola, Florida 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 AHAs
- Review Stop Work Authorization

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.

| Name (Printed and Signature) | Site-Specific Training Date | 40-Hour Training (Date) | 8-Hour Refresher Training (Date) | 8-Hour Supervisory Training (Date) | Medical Exam |
|---|---|---|---|---|---|
| Amber Igoe | 12/6/11 | 6/04 | 1/11 | 1/11 | 9/11 |
| JERRY OSO | 12/6/4 | 11/08 | 11/11 | N/A | 10/11 |
| Dustin Lambert | 12/6/11 | 8/10 | 11/11 | N/A | 10/11 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |

# CERTIFICATE OF TRAINING

To acknowledge the completion of

HAZWOPER 8 HOUR CLASSROOM TRAINING REFRESHER

To Comply with 29 CFR 1910.120

Terry Orso

Has completed this course on
November 18, 2011

Singley Construction Company, Inc.
Company Name

Instructor's Name/Signature

11/18/2011
Date

In testimony Whereof, this certificate has been issued and accreditation number 11-01636481 assigned following successful completion of this course and examination on 11/18/2011. This accreditation expires on 11/18/2011.

# CERTIFICATE OF TRAINING

**To acknowledge the completion of**

## HAZWOPER 40 Hour Classroom Training
### To Comply with 29 CFR 1910.120

*Terry D. Orso*

Has completed this course on

November 20, 2008

Singley Construction Company, Inc.
Company Name

Corey Milton
Instructor's Name/Signature

In Testimony Whereof, this certificate has been issued and accreditation number 2008-00008 assigned following successful completion of this course and examination on November 20, 2008. This accreditation expires on November 20, 2009.

# CERTIFICATE OF TRAINING

To acknowledge the completion of

## HAZWOPER 40 HOUR CLASSROOM TRAINING

To Comply with 29 CFR 1910.120

*Dustin Lambert*

Has completed this course on
August 30, 2010

Digitally signed by Corey Milton
Date: 2010.09.28 09:47:46 -05'00'

Instructor's Name/Signature

Sept. 28, 2010
Date

**Singley Construction Company, Inc.**
Company Name

In testimony Whereof, this certificate has been issued and accreditation number 2010-01780631 assigned following successful completion of this course and examination on August 30, 2010. This accreditation expires on August 30, 2011..

# CERTIFICATE OF TRAINING

To acknowledge the completion of

HAZWOPER 8 HOUR CLASSROOM TRAINING REFRESHER

To Comply with 29 CFR 1910.120

Dustin Lambert

Has completed this course on
November 18, 2011

Singley Construction Company, Inc.
Company Name

Corey Mott
Instructor's Name/Signature

11/18/2011
Date

In testimony Whereof, this certificate has been issued and accreditation number 11-01780631 assigned following successful completion of this course and examination on 11/18/2011. This accreditation expires on 11/18/2012.

Location Pensacola FL Date 12/6/11

Project / Client Navy 112G-02748

Saufley Field Site 5

1328 Set up on Location 0-68 Soil

1345 Sample 118 is 10 feet north, of 68

1356 Sample ~~118~~-119 is 10 feet east of 68

1403 Sample 120 is 10 feet south of 68

1409 sample 121 is 10 feet west of 68

All samples 4-6' bls

Collected sample 118

MS/MSD FD 12061102

The 4-6' bls from locations 116 & 117 were held for analysis

1446 Begin packing samples & decon equipment & secure site



Location Saufley Field Date 27 March 2012

Project / Client Navy, Site 5. 112G 02748

Rel last of 10-day shift @ Bronson Site 103, 104, 105

0630 Check out BEQ - pick up Sub Lab cooler

0800 At Saufley awaiting drillers - have called twice - they call @ 0815 - just arrive - proceed on to base meet with Alex Murphy set up to sample @ location 4-1c all samples @ 4-6 ft bls series 05-50-122-125-4-6 COC #0025 - Drillers arrive begin HA + decon help

0900 Move to site 4-1a collect 50 samples 0-2 and 4-6 @ locations 05-50-126-131 or 6 locations as shown on figure multiple photographs taken

1030 Move to Location 4-1b on flight line near location 53 collect 0-2, 2-4, and 4-6 soils for analysis @ Sub Labs.

1130 Driller depart project area - Alex and I travel to Bronson to collect field rinsate sample FB 03-27-1201 - pack coolers - deliver to Fed Ex - COC 0027

1300 Project Complete

Location OLF Saultley Site 5 Date 27 March 2012

Project / Client

| Soil Sample Location | FID | PID | |
|---|---|---|---|
| 05-50-122-4-6 | 4.7 | 1.1 | From around Sample 05-50-068 |
| 123 | 6.4 | 1.1 | |
| 124 | 5.8 | 0.9 | |
| 125 | 4.3 | 1.7 | |
| 05-50-126-0-2 | 4.2 | 2.1 | |
| 4-6 | 4.3 | 0.8 | |
| 127 0-2 | 2.3 | 2.8 | Dup FD03-2742 |
| 4-6 | 5.3 | 1.2 | |
| 128 0-2 | 3.4 | 2.4 | Dup FD-03 27-1202 |
| 4-6 | 4.6 | 4.8 | |
| 129 0-2 | 2.4 | 4.6 | |
| 4-6 | 2.1 | 4.8 | |
| 130 0-2 | 2.3 | 3.8 | |
| 4-6 | 3.3 | 2.0 | |
| 131 0-2 | 5.6 | 6.4 | |
| 4-6 | 6.6 | 2.3 | |
| 05-50-132-0-2 | 2,468 | 3,168 | |
| 2-4 | 1,945 | 3,214 | |
| 4-6 | 30.7 | 33.3 | |

Samples from around location 05-50-111 thru 117 –

From near sample 05-50-53



Location Date

Project / Client

# APPENDIX B

# SOIL BORING LOGS & SOIL SAMPLE DATA SHEETS

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB001
DATE: 3.22.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0-12" | concrete | | | | | | | |
| | | | | 1120 2 | fine | | sandy tan | | 1.9 | | | | |
| | | | | 1125 4 | " | | " " | | 3.1 | X | | | |
| | | | | 1130 6 | " | | sandy clay reddish tan | | 2.9 | | | | |
| | | | | 1135 8 | " | | sandy clay reddish tan | | 2.7 | | | | |
| | | | | 1140 10 | " | | sandy clay reddish | | 2.3 | | | | |
| | | | | 1145 15 | fine-med | | sandy clay reddish orange | | 3.1 | | | | |
| | | | | 1150 20 | " | | sandy clay red/orange | | 5.5 | | | | |
| | | | | 1155 25 | " | | clay and red brown mix | | NM | | | | |
| | | | | 1159 30 | " | | clay sand light orange | | NM | | | | |
| | | | | 1200 35 | " | | clay sand red w/ tan dark brown mix | | NM | | | | |
| | | | | 1205 40 | " | | clay sand mottled red tan brown | | NM | | | | |
| | | | | 1210 45 | " ▽ | | clay sand tan brown mottled | | NM | | | | |
| | | | | 1215 50 | | | | | NM | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.10

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-01-0304
Sample Location: SB001
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

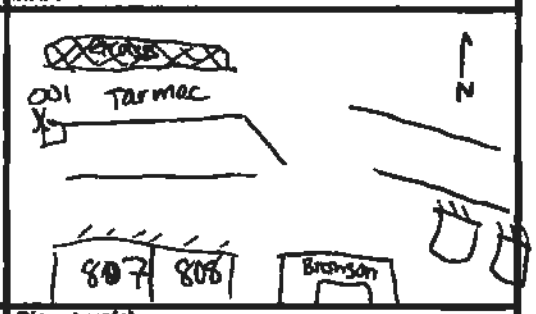
| Date: 3-22-10 | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | 1125 | 2-4 | tan | sandy slight moist |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 3.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MB

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB002
DATE: 3·22·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm) Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0-6" | concrete | | | | | | | |
| | | | | 1400 0 | | | | | | | | | |
| | | | | 1405 2 | fine | red orange | sandy | | 1.7 | | | | |
| | | | | 4 | " | " | " " | | 1.6 | | | | |
| | | | | 1410 6 | " | " | " " | | 2.4 | | | | |
| | | | | 1411 8 | fine | red | clay sand moist | | 2.2 | | | | |
| | | | | 1414 10 | fine | dark red | clay sand | | 2.4 | | | | |
| | | | | 1415 15 | fine | red | orange tan mix clay/sand | | 2.4 | | | | |
| | | | | 1420 20 | fine | tan red | mottled clayey sand | | 3.5 | | | | |
| | | | | 25 | — | | NM as last 2 consecutive | | — | | | | |
| | | | | 30 | | | reading < 10 ppm | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 1.6

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-002-0204
Sample Location: SB002
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

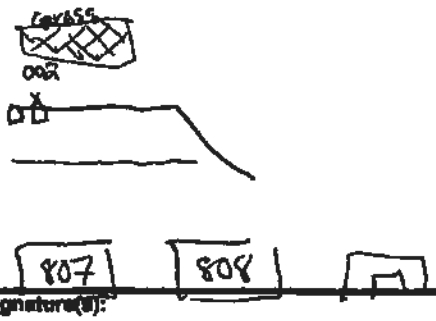
| Date: 3·22·11 | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | 1405 | 2-4 | redorange | clayey sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.6 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3-40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB003
DATE: 3-22-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1445 | 0 | 0-6" concrete core | | | | | | | |
| | | | | 1448 | 2 | fine | brown sandy | | 1.4 | | | | |
| | | | | 1450 | 4 | fine | tanbrown clayey sand | | 1.8 | | | | |
| | | | | 1455 | 6 | fine | red clayey sand | | 1.4 | | | | |
| | | | | 1456 | 8 | fine | red " " | | 2.1 | | | | |
| | | | | 1459 | 10 | " | " " " | | 1.1 | | | | |
| | | | | 1500 | 15 | " | " " " moist | | 1.7 | | | | |
| | | | | | 20 | fine/med | " tan sandy moist | | 1.4 | | | | |
| | | | | | 25 | | NM - last 2 consecutive | | | | | | |
| | | | | | 30 | | readings <10 ppm | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 1.3

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-003-0204
Sample Location: SB003
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

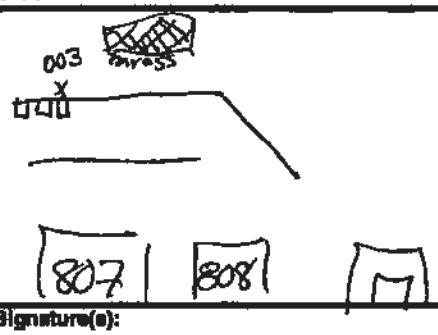
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-22-11 | 1448 | 2-4 | tan/brwn | clay/sandy |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.8 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | 1 | | |
| PAHs | 1 8oz amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB004
DATE: 3.22.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Drillar BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1530 | 0-6" | concrete core | | | | | | | |
| | | | | 1533 | 2 fine | red/tan | clayey sand | | 2.8 | | | | |
| | | | | 1535 | 4 " | " | " " | | 3.0 | | | | |
| | | | | 1540 | 6 fine | red | clayey sand | | 4.7 | | | | |
| | | | | 1542 | 8 " | " | " " | | 5.3 | | | | |
| | | | | 1545 | 10 " | " | " " | | 5.1 | | | | |
| | | | | 1550 | 15 fine | red/brown | clayey sand | | 5.4 | | | | |
| | | | | | 20 fine/med | red/brown/tan | clayey sand | | 5.6 | | | | |
| | | | | | 25 | | NM as last 2 consecutive | | | | | | |
| | | | | | 30 | | readings < 10 ppm (and w/n 30' I) | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 2.3

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-004-0204
Sample Location: SB004
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·22·11 | 1533 | 2-4 | red/tan | clayey sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 3.0 | | | | |

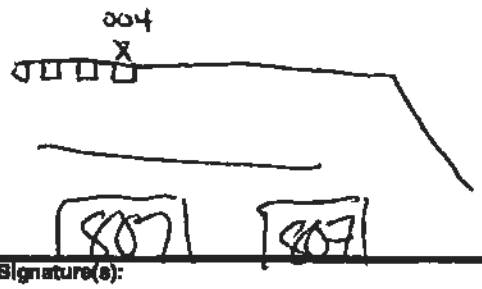
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | 1 8oz. amber jar | ✓ | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

[redacted]

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MB

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB005
DATE: 3-23-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm) Sample | Sampler BZ | Borehole** | Drifter BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0730 < 0 | 0-6" | concrete | | | | | | | |
| | | | | 0734 < 2 | fine | tan/brown | sand | | 0.0 | | | | |
| | | | | 0736 < 4 | fine | tan/red | sand | | 0.0 | | | | |
| | | | | 0740 < 6 | fine | tan/red | sandy | | 0.0 | | | | |
| | | | | 0742 < 8 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 0746 < 10 | fine | red | " " | | 0.0 | | | | |
| | | | | 0751 < 15 | " | " | " " | | 0.0 | | | | |
| | | | | < 20 | fine-med | tan orange | sandy | | 1.5 | | | | |
| | | | | < 25 | — | NM as last 2 consecutive | | | — | | | | |
| | | | | < 30 | | readings < 10 ppm | | | | | | | |
| | | | | < 35 | | | | | | | | | |
| | | | | < 40 | | | | | | | | | |
| | | | | < 45 | | | | | | | | | |
| | | | | < 50 | — | — | — | | — | | | | |
| | | | | | | COLLECT GW SCREENING | | | | | | | |
| | | | | | | SAMPLE HERE PER | | | | | | | |
| | | | | | | UFP-SAP | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-005-0204 SB
Sample Location: SB005
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: 3-23-11 | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | 0734 | 2-4' | tan/red | Sandy |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

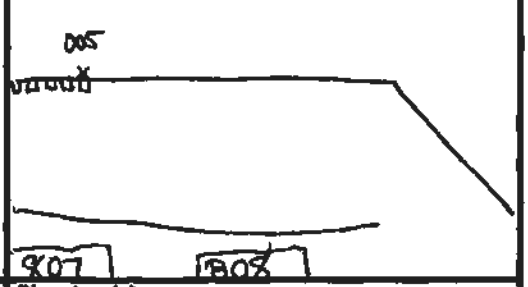
| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

COLLECTED GW SCREENING SAMPLE @ 50' bls
for: Total Lead
EDB
TRPH
VOCs
PAHs
MS/MS + DUP

Time:

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No.: yes 05-SS-005- -D

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB006
DATE: 3-23-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0-6" concrete core | | | | | | | | |
| | | | | 0955 < 0 | | | | | | | | | |
| | | | | 0957 < 2 | fine | tan | sand | | 0.0 | | | | |
| | | | | 4 | fine | tan | sand | | 0.0 | X | | | |
| | | | | 1000 < 6 | fine | tan/red | sand | | 0.0 | | | | |
| | | | | 1002 < 8 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1005 < 10 | " | " | " " | | 0.0 | | | | |
| | | | | 1007 < 15 | " | red/orange | clayey sand | | 0.0 | | | | |
| | | | | 1010 < 20 | fine/med | " | " ~~"~~ sandy | | 0.0 | | | | |
| | | | | 25 | | | NM as last 2 consecutive | | | | | | |
| | | | | 30 | | | readings < 10 ppm | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-006-0204
Sample Location: SB006
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

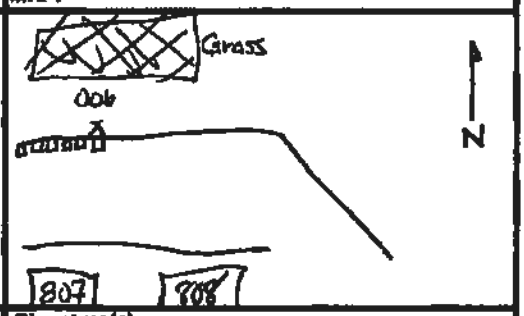
| Date: 3-23-11 | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | 0957 | 2-4 | tan | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | 1 8oz. amber jar | ✓ | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB007
DATE: 3.23.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0-6" | concrete core | | | | | | | |
| | | | | 1025 | 0 | | | | | | | | |
| | | | | 1027 | 2 | fine | tan/brown sand | | 0.0 | | | | |
| | | | | 1030 | 4 | fine | tan sand | | 0.0 | | | | |
| | | | | 1032 | 6 | fine | tan/orange sand | | 0.0 | | | | |
| | | | | 1035 | 8 | fine | orange/red sand moist | | 0.0 | | | | |
| | | | | 1038 | 10 | fine | red sand moist | | 0.0 | | | | |
| | | | | 1040 | 15 | " | " clayey sand | | 0.0 | | | | |
| | | | | | 20 | fine/med | red " " " | | 0.0 | | | | |
| | | | | | 25 | | NM as last 2 consecutive | | | | | | |
| | | | | | 30 | | readings <10 ppm | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-007-0284
Sample Location: SB007
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

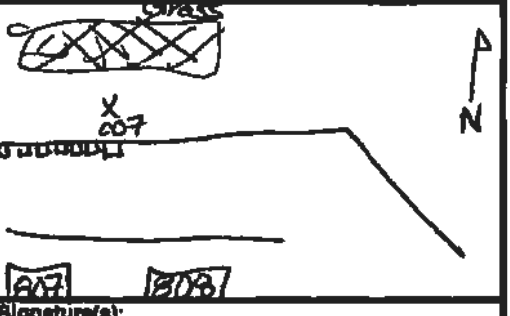
| Date: 3.23.11 | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | 1027 | 2-4 | tan | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB008
DATE: 3-23-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0-6" concrete core" | | | | | | | | |
| | | | | 1118 < 2 | fine | tan/brown | sand | | 0.0 | | | | |
| | | | | 1120 < 4 | fine | tan | sand | | 0.0 | | | | |
| | | | | 1124 < 6 | fine | red | sand | | 0.0 | | | | |
| | | | | 1125 < 8 | " | " | " | | 0.9 | | | | |
| | | | | 1128 < 10 | fine | red | clayey sand | moist | 0.0 | | | | |
| | | | | 1130 < 15 | " | " | " " | moist | 0.0 | | | | |
| | | | | 1133 < 20 | fine/med | | sand | moist | 0.0 | | | | |
| | | | | 25 | | | NM as last two consecutive | | | | | | |
| | | | | 30 | | | readings < 10ppm | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-008-0204
Sample Location: SB008
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

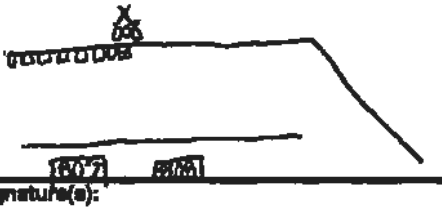
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·23·11 | 1120 | 2-4 | tan | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 340mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amberjar | ✓ | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**OBSERVATIONS / NOTES:**

**MAP:**



**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB009
DATE: 3-23-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0-6' | | concrete core | | | | | | |
| | | | | 1235 | 2 | fine | tan/brown sand | | 0.8 | | | | |
| | | | | 1237 | 4 | fine | tan sandy/clayey | | 0.3 | X | | | |
| | | | | 1240 | 6 | fine | red/tan sandy clay | | 1.7 | | | | |
| | | | | 1243 | 8 | fine | red sand | | 1.1 | | | | |
| | | | | 1245 | 10 | fine | red clayey sand | | 1.2 | | | | |
| | | | | 1247 | 15 | fine | red " " | | 1.2 | | | | |
| | | | | 1250 | 20 | fine/med | red ~~clayey~~ sand | | | | | | |
| | | | | | 25 | — | NM last 02 consec | | — | | | | |
| | | | | | 30 | | readings <10 ppm | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-009-0204
Sample Location: SB009
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

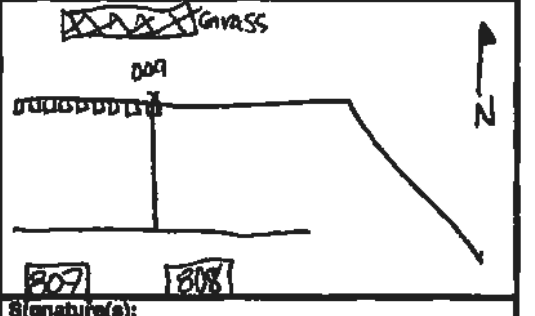
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·23·11 | 1237 | 2-4 | tan | Sandy/Clayey |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.3 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | >1 8oz. amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No.: X

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB010
DATE: 3-23-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS | Remarks | PID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0-6" concrete core | | | | | | | | |
| | | | | 1335 < 2 | fine | brown/red | Sand | | 0.0 | | | | |
| | | | | 1337 < 4 | fine | red/brown | sand | | 1.1 | | | | |
| | | | | 1340 < 6 | fine | red | sand | | 1.6 | | | | |
| | | | | 1343 < 8 | fine | red | clayey sand | | 0.5 | | | | |
| | | | | 1345 < 10 | fine | red | clayey sand | | 0.7 | | | | |
| | | | | 1347 < 15 | fine | red orange | clayey sand | | 0.0 | | | | |
| | | | | 1350 < 20 | fine-med | reddish tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-010-0204
Sample Location: SB010
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

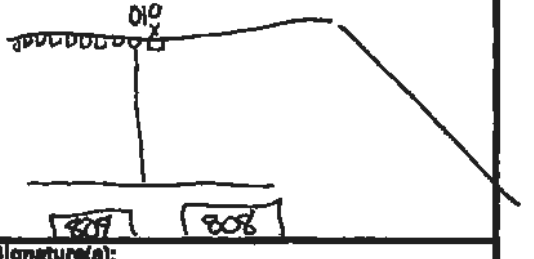
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-23-11 | 1337 | 2-4 | Red brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 1.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB011
DATE: 3.23.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0-6" | concrete core | | | | | | | |
| | | | | 1410 < 2 | fine | brown sand | | | 0.2 | | | | |
| | | | | 1415 < 4 | fine | tan/brown/red sand | | | 0.9 | | | | |
| | | | | 1417 < 6 | " | red brown sand | | | 0.7 | | | | |
| | | | | 1420 < 8 | " | red clayey sand | | | 1.7 | | | | |
| | | | | 1422 < 10 | " | red " " | | | 0.4 | | | | |
| | | | | 1425 < 15 | fine | red " " | | | 0.0 | | | | |
| | | | | 1427 < 20 | fine-med | red orange tan sand | | | 1.8 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-011-0204
Sample Location: SB011
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

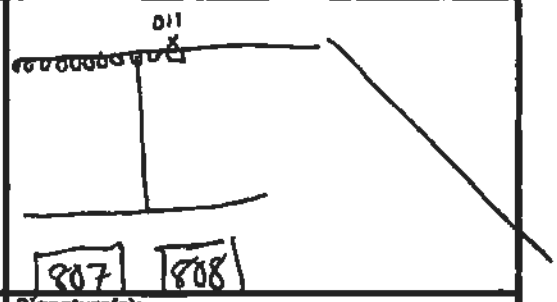
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-23-11 | 1415 | 2-4 | tan/brown/red | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40ml VOA | ✓ | |
| TRPH | >1 8oz amber jar | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB012
DATE: 3·23·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1459 | 0 | | ~~fine brown sand~~ 0-6" concrete core | | | | | | |
| | | | | 1500 | 2 | | fine red/brown sand | | 0.7 | | | | |
| | | | | 1502 | 4 | | fine red/brown sand | | 0.9 | | | | |
| | | | | 1505 | 6 | | fine red clayey sand | | 0.9 | | | | |
| | | | | 1508 | 8 | | fine red " " " | | 1.1 | | | | |
| | | | | 1510 | 10 | | fine red/tan clayey sand | | 1.3 | | | | |
| | | | | 1512 | 15 | | fine red sandy ~~clay~~ | | 2.0 | | | | |
| | | | | | 20 | | fine red/orange/tan mix sand | | 1.4 | | | | |
| | | | | | 25 | | NM as last 2 consec. | | | | | | |
| | | | | | 30 | | readings < 10ppm | | | | | | |
| | | | | | 35 | | per SAP | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-012-0204
Sample Location: SB012
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

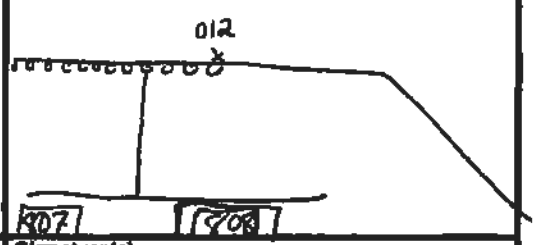
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3.23.11 | 1500 | 2-4 | red brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X | Duplicate ID No.: X

**Signature(s):** L M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB013
DATE: 3-24-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | OVA/HNU Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | ~~fine tr~~ | | 0-6" concrete core | | | | | | |
| | | | | 0750 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0755 4 | fine | tan brown | sand | | 0.0 | ✓ | | | |
| | | | | 0759 6 | fine | brown red | clayey sand | | 0.2 | | | | |
| | | | | 0800 8 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 0802 10 | fine | red tan | " " | | 0.3 | | | | |
| | | | | 0805 15 | fine | red | sand | | 0.0 | | | | |
| | | | | 0808 20 | fine-med | red tan | sand | | 0.7 | | | | |
| | | | | 25 | | | NM as last 2 consec. | | | | | | |
| | | | | 30 | | | readings < 10 ppm | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-013-02xx
Sample Location: SB013
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

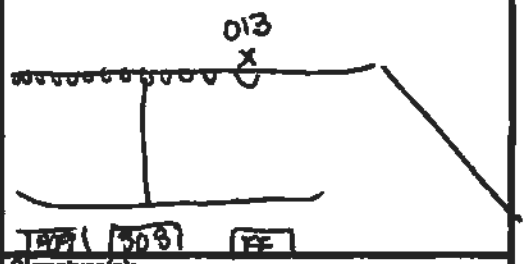
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3/24/11 | 0755 | 2-4 | tan brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40ml VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




Circle if Applicable:
MS/MSD
Duplicate ID No.: 05-SS-013-0204-D

Signature(s):

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB014
DATE: 3-24-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm) Sample | Sampler BZ | Borehole** | Drilling BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0-6" concrete core | | | | | | | | |
| | | | | 0833 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0835 4 | fine | tan brown | sand | | 0.0 | | | | |
| | | | | 0837 6 | fine | tan orange | sand | | 0.0 | | | | |
| | | | | 0840 8 | fine | red orange | clayey sand | | 0.0 | | | | |
| | | | | 0842 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 0845 15 | " | " | " " | | 0.0 | | | | |
| | | | | 0850 20 | fine-med | red tan | sand | | 0.6 | | | | |
| | | | | 0855 25 | | | | | NM | | | | |
| | | | | 0900 30 | | | | | NM | | | | |
| | | | | 0902 35 | | | | | NM | | | | |
| | | | | 0905 40 | | | | | NM | | | | |
| | | | | 0910 45 | | ▽ | | | NM | | | | |
| | | | | 0915 50 | | | | | NM | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-014-0204
Sample Location: SB014
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: 3-24-11 | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | 0855 | 2-4 | tan brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

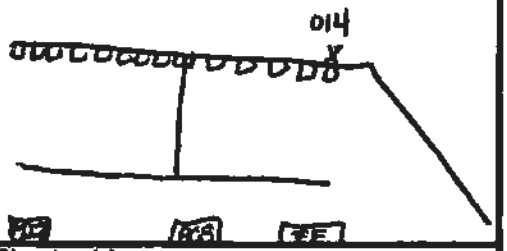
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | | |

**OBSERVATIONS / NOTES:**

Collected GW screening sample Here 05-MW-014 per UFP SAP for
TRPH
PAH
EDB
VOC
Total Pb
@ 0915

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB015
DATE: 3.24.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1002 | 0 | | 0-6" concrete core | | | | | | |
| | | | | 1005 | 2 | fine | brown sand | | 1.5 | | | | |
| | | | | 1007 | 4 | " | " " | | 1.7 | | | | |
| | | | | 1010 | 6 | fine | tan brown sand | | 2.0 | | | | |
| | | | | 1012 | 8 | " | brown/red sand | | 1.8 | | | | |
| | | | | 1015 | 10 | " | red clayey sand | | 1.4 | | | | |
| | | | | 1017 | 15 | fine | red sand | | 1.8 | | | | |
| | | | | | 20 | fine-med | red/tan sand | | 3.0 | | | | |
| | | | | | 25 | | NM as last 2 consec. | | | | | | |
| | | | | | 30 | | readings < 10ppm | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-015-0204
Sample Location: SB015
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

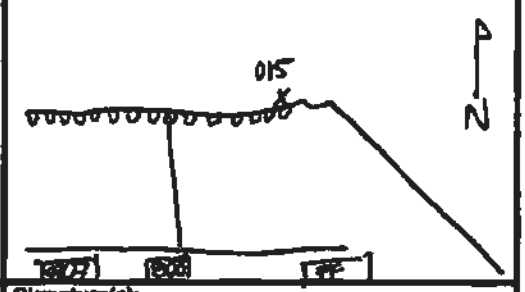
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-24-11 | 1005 | 2-4 | tan brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ teracore | |
| TRPH | | | |
| PAHs | >1 8oz. amber jar | ✓ ssspoon | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB016
DATE: 3-24-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1042 | 0 | | 0-6" concrete core | | | | | | |
| | | | | 1045 | 2 | fine | tan sand | | 0.0 | | | | |
| | | | | 1047 | 4 | fine | tan/brown sand | | 0.0 | | | | |
| | | | | 1050 | 6 | fine | brown sand | | 0.4 | | | | |
| | | | | 1052 | 8 | fine | brown/red sand | | 0.6 | | | | |
| | | | | 1055 | 10 | fine | red clayey sand | | 1.0 | | | | |
| | | | | 1057 | 15 | fine | red sand | | 1.2 | | | | |
| | | | | | 20 | fine-med | tan/red mix sand | | 1.0 | | | | |
| | | | | | 25 | | NM as last 2 consec. | | | | | | |
| | | | | | 30 | | readings < 10 ppm | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-016-0204
Sample Location: SB016
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

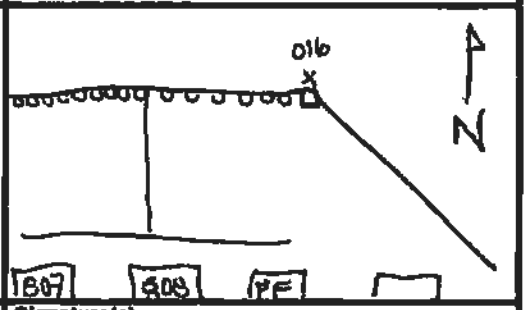
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-24-11 | 1045 | 2-4 | tan/brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | 1 8oz amber jar | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No.: X

Signature(s): MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB017
DATE: 3·24·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1115 < 0 | | | 0-6" concrete/core asphalt | | | | | | |
| | | | | 1120 < 2 | fine | brown/orange | sand | | 1.0 | | | | |
| | | | | 1122 < 4 | fine | orange/red | sand | | 0.9 | | | | |
| | | | | 1125 < 6 | " | " | " " | | 1.7 | | | | |
| | | | | 1127 < 8 | fine | red | clayey sand | | 1.6 | | | | |
| | | | | 1130 < 10 | fine | red | sand | | 1.1 | | | | |
| | | | | 1135 < 15 | " | " | " | | 2.6 | | | | |
| | | | | 20 | fine-med | red/orange/tan mix | sand | | 6.2 | | | | |
| | | | | 25 | — | NM as last 2 consec | | | — | | | | |
| | | | | 30 | | readings < 10ppm | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.1

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: DS-SS-017-0204
Sample Location: S8017
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

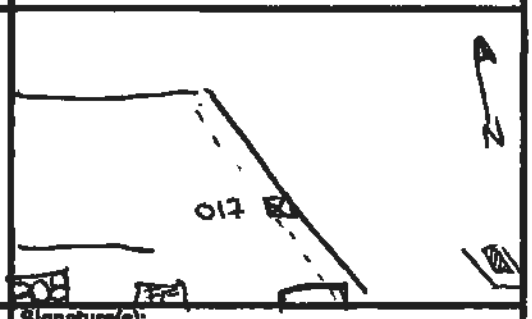
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-24-11 | 1120 | 2-4 | tan brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8 oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB018
DATE:
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 9" asphalt core | | | | | | |
| | | | | 1220 | fine | | tan brown sand | | 7.0 | | | | |
| | | | | 2 | fine | tan/brown | sand | | 6.3 | | | | |
| | | | | 1224 | | | | | | | | | |
| | | | | 4 | fine | tan/orange | sand | | 7.0 | | | | |
| | | | | 1225 | | | | | | | | | |
| | | | | 6 | fine | tan/orange/red | sand | | 2.3 | | | | |
| | | | | 1227 | | | | | | | | | |
| | | | | 8 | fine | red orange | sand | | 7.6 | | | | |
| | | | | 1230 | | | | | | | | | |
| | | | | 10 | fine | red clayey | sand | | 5.0 | | | | |
| | | | | 1233 | | | | | | | | | |
| | | | | 15 | fine | red | sand | | 14.2-1.4 = | | | 12.8 | |
| | | | | 1235 | | | | | | | | | |
| | | | | 20 | fine-med | tan/red | Sand | | 0.7 | | | | |
| | | | | 1238 | | | | | | | | | |
| | | | | 25 | fine-med | red tan | sand | | 2.8 | | | | |
| | | | | ~~1240~~ | | | | | | | | | |
| | | | | 30 | — | — | NM(G no GW collected | | — | | | | |
| | | | | ~~1242~~ | | | | | | | | | |
| | | | | 35 | | | since no w/in 20' | | of | | | | |
| | | | | ~~1245~~ | | | | | | | | | |
| | | | | 40 | | | ▽ last 2 consec. readings | | | | | | |
| | | | | ~~1248~~ | | ▽ | <10ppm | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | — | — | — | | — | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #:

13.2
- 1.4
12.8

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-018-1520
Sample Location: 3.24.11
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

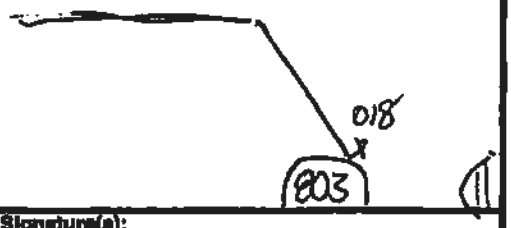
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3.24.11 | 1235 | 15-20 | tan red | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOAs | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB019
DATE: 3.24.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

+458

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 0-6" asphalt core | | | | | | |
| | | | | 1328 2 | fine | brown | sand | | 2.7 | | | | |
| | | | | 1330 4 | fine | tan | sand | | 1.9 | | | | |
| | | | | 1333 6 | fine | tan/orange | sand | | 2.2 | | | | |
| | | | | 1335 8 | fine | orange/red | sand | | 4.2 | | | | |
| | | | | 1337 10 | fine | red | sand | | 3.4 | | | | |
| | | | 1400 | 15 | fine | red | clayey sand | | 2.9 | | | | |
| | | | 1410 | 20 | fine-med | tan/red | sand | | 2.9 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: Hydralic line blew @ 8' - hand augered rest of way

Drilling Area Background (ppm): 0.1

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-019-0204
Sample Location: SB019
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

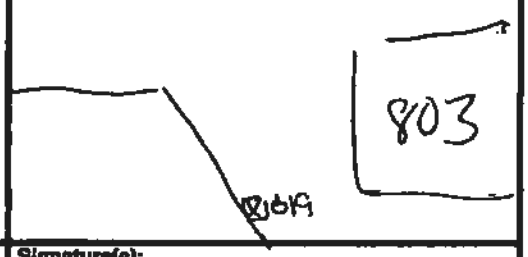
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 5·24·11 | 1330 | 2-4 | brown/orange | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 2 1 8oz amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: S13020
DATE: 3.25.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 0-9" asphalt core | | | | | | |
| | | | | 1100 < 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1105 < 4 | " | " | " | | 1.1 | | | | |
| | | | | 1107 < 6 | fine | tan/orange | sand | | 0.4 | | | | |
| | | | | 1110 < 8 | fine | orange/red | sand | | 1.1 | | | | |
| | | | | 1112 < 10 | fine | red | clayey sand | | 2.0 | | | | |
| | | | | 1115 < 15 | fine | red | sand | | 2.3 | | | | |
| | | | | 1117 < 20 | fine-med | tan/red mix | sand | | 1.7 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: SB-SS-020-020
Sample Location: SB020
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3.24.11 | 1105 | 2-4 | tan brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.1 | | | | |

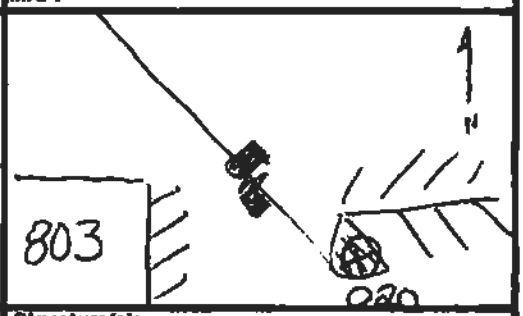
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

MS/MSD collected

**MAP:**




**Circle if Applicable:**

MS/MSD

Duplicate ID No.:

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB021
DATE: 3.25.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1155< 0 | | | 0-9" ashalt/core concrete | | | | | | |
| | | | | 1157< 2 | fine | brown | sand | | 2.1 | | | | |
| | | | | 1200< 4 | " | " | " | | 2.2 | | | | |
| | | | | 1204< 6 | " | tan orange | Sand | | 2.6 | | | | |
| | | | | 1206< 8 | " | orange | red sand | | 2.8 | | | | |
| | | | | 10 | " | red | clayey sand | | 3.3 | | | | |
| | | | | 1208< 15 | " | red | sand | | 2.9 | | | | |
| | | | | 1210< 20 | fine-med | red orang | sand | | 2.0 | | | | |
| | | | | 25 | — | — | NM as last 2 consec. | | — | | | | |
| | | | | 30 | | | readings <10ppm | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-021-0204
Sample Location: SS021
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

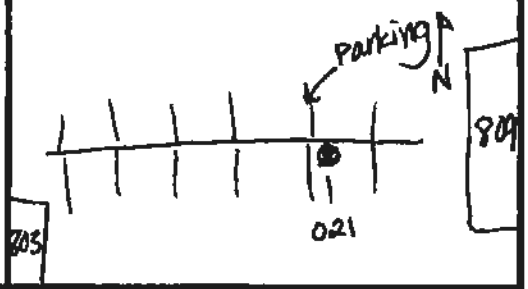
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·25·11 | 1157 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| ✗ | ✗ |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: ~~[illegible]~~ SB022
DATE: ~~SB022~~ 3-25-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | 0-6" concrete/asphalt | | | | | | | |
| | | | | 13:52 2 | fine | brown sand | | | 2.3 | | | | |
| | | | | 13:55 4 | fine | brown/tan sand | | | 1.9 | | | | |
| | | | | 13:58 6 | fine | tan/red sand | | | 2.2 | | | | |
| | | | | 14:00 8 | fine | orange-red sand | | | 2.4 | | | | |
| | | | | 14:04 10 | fine | red sand | | | 2.1 | | | | |
| | | | | 14:05 15 | fine | red sand | | | 2.5 | | | | |
| | | | | 14:07 20 | fine-med | red/tan sand | | | 7.3 | | | | |
| | | | | 25 | | NM as last 2 readings | | | | | | | |
| | | | | 30 | | <10 ppm | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.2

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-022-0204
Sample Location: SB022
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

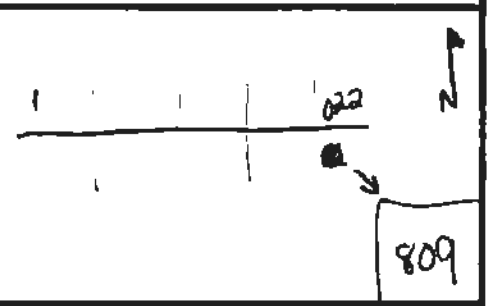
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-25-11 | 1355 | 2-4 | tan/brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB023
DATE: 3-25-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 0 | | 0-8" concrete/ asphalt core | | | | | | |
| | | | | 1436 | 2 | fine | brown sand | | 1.0 | | | | |
| | | | | 1440 | 4 | fine | brown/orang sand | | 1.4 | | | | |
| | | | | 1442 | 6 | fine | brown/red sand | | 1.6 | | | | |
| | | | | 1445 | 8 | fine | red/orang sand | | 1.4 | | | | |
| | | | | 1447 | 10 | fine | red sand | | 1.6 | | | | |
| | | | | 1450 | 15 | fine | red clayey sand | | 1.3 | | | | |
| | | | | 1455 | 20 | fine-med | red & tan sand | | 2.5 | | | | |
| | | | | | 25 | | NM as last 2 readings | | | | | | |
| | | | | | 30 | | < 10ppm | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.2

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SN-023-0204
Sample Location: SB023
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

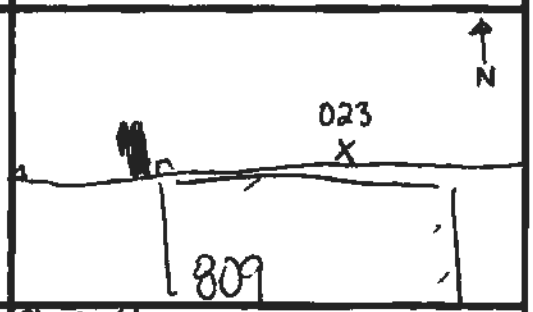
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3.25.11 | 1440 | 2-4 | brown/orange | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 1.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MB cord

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB024
DATE: 3.25.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 0-6" concrete asphalt core | | | | | | |
| | | | | 1513 2 | fine | brown | sand | | 2.5 | | | | |
| | | | | 1515 4 | fine | tanbrown | sand | | 1.1 | | | | |
| | | | | 1517 6 | fine | tanorange | sand | | 1.2 | | | | |
| | | | | 1520 8 | fine | orange-red | sand | | 2.9 | | | | |
| | | | | 1523 10 | fine | red | sand | | 2.9 | | | | |
| | | | | 1525 15 | fine | red | clayey sand | | 2.[illegible] | | | | |
| | | | | 1527 20 | fine-med | red&tan | sand | | 2.4 | | | | |
| | | | | 25 | | | NM as last 2 consec. | | | | | | |
| | | | | 30 | | | readings <10ppm | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-024-0204
Sample Location: SB024
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

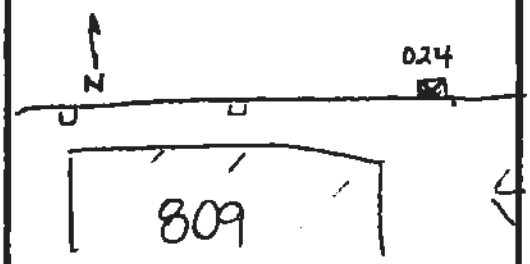
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-25-11 | 1515 | 2-4' | tan brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 1.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | 2 |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB025
DATE: 3·25·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Drifter BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1543 | 0 | | 0-8" concrete core | | | | | | |
| | | | | 1545 | 2 | fine | brown Sand | | 2.9 | | | | |
| | | | | | 4 | " | " | " | 3.0 | | | | |
| | | | | 1547 | 6 | " | orangetan sand | | 2.8 | | | | |
| | | | | 1550 | 8 | " | tanred sand | | 3.1 | | | | |
| | | | | 1553 | 10 | " | redorange sand | | 3.8 | | | | |
| | | | | 1555 | 15 | fine | red sand | | 5.7 | | | | |
| | | | | 1557 | 20 | fine-med | redtan sand | | 5.8 | | | | |
| | | | | | 25 | → | NM as last 2 | | | | | | |
| | | | | | 30 | | consec. readings | | | | | | |
| | | | | | 35 | | <10 ppm | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.5

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-025-0204
Sample Location: 3-25-11
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

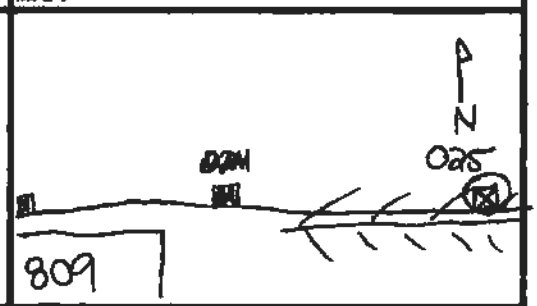
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-25-11 | 1545 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 3.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 ml VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | ✓ |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB026
DATE: 3-25-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 0-7" concrete core | | | | | | |
| | | | | 1618 2 | fine | brown | sand | | 0.5 | | | | |
| | | | | 1620 4 | fine | brown | sand | | 1.9 | | | | |
| | | | | 1623 6 | fine | tan/orange | sand | | 1.4 | | | | |
| | | | | 1625 8 | fine | orange/red | sand | | 1.8 | | | | |
| | | | | 1628 10 | fine | red | clayey sand | | 1.9 | | | | |
| | | | | 1630 15 | fine | red | sand | | 2.3 | | | | |
| | | | | 1633 20 | fine-med | red/tan | sand | | 5.4 | | | | |
| | | | | 25 | — | | NM as last 2 consec. | | — | | | | |
| | | | | 30 | | | readings <10ppm | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 8.4

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-026-0201
Sample Location: SB026
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

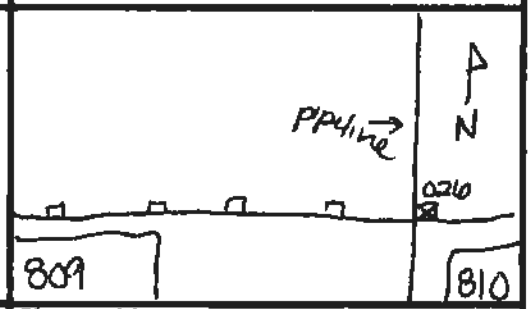
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·25·11 | 1620 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 1.9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | > 1 8oz. amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No.: X

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB027
DATE: 3.28.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 0-8" concrete core | | 0.6 | | | | |
| | | | | 0902 < 2 | fine | brown | sand | | 0.5 | | | | |
| | | | | 0905 < 4 | " | " | " | | 0.5 | | | | |
| | | | | 0907 < 6 | fine | tan/orange | sand | | 1.4 | | | | |
| | | | | 0910 < 8 | fine | orange/red | sand | | 1.0 | | | | |
| | | | | 0912 < 10 | fine | red | sand | | 1.2 | | | | |
| | | | | 0915 < 15 | " | " | " | | 1.4 | | | | |
| | | | | 0917 < 20 | fine-med | red/orange/tan | sand | | | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-027-0204
Sample Location: SS027
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·28·4 | 0705 | 2-4 | brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.5 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**

**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB028
DATE: 3·28·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0-8" | | concrete core | | - | | | | |
| | | | | 0732 2 | fine | brown | sand | | 1.5 | | | | |
| | | | | 0735 4 | fine | brown | sand | | 1.3 | | | | |
| | | | | 0738 6 | fine | tan | orange sand | | 0.8 | | | | |
| | | | | 0740 8 | fine | orange | red sand | | 1.4 | | | | |
| | | | | 0744 10 | fine | red | orange sand | | 1.5 | | | | |
| | | | | 0745 15 | fine | red | sand | | 0.7 | | | | |
| | | | | 0750 20 | fine-med | red | tan sand | | 1.2 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-028-0204
Sample Location: SB028
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

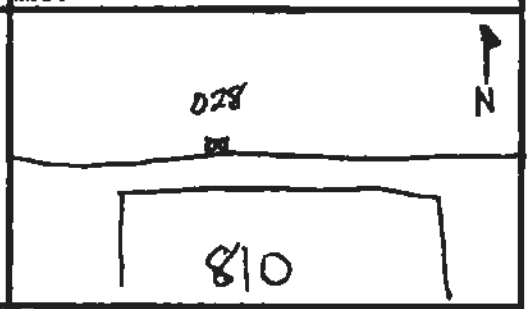
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·28·11 | 0735 | 2-4 | brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.3 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB029
DATE: ~~3/28/11~~ 4-10-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | 0-8" | concrete core | | | | | | |
| | | | | 1546 2 | fine | brown | sand | | 1.8 | | | | |
| | | | | 1550 4 | " | " | " (some charcoal debris) | | 1.3 | | | | |
| | | | | 1554 6 | " | " | " | | 1.6 | | | | |
| | | | | 1556 8 | fine | orange tan | sand | | 1.9 | | | | |
| | | | | 1559 10 | fine | red/orange | sand | | 2.5 | | | | |
| | | | | 1601 15 | fine | red | sand | | 1.1 | | | | |
| | | | | 1604 20 | fine-med. | red/orange tan | sand | | 2.6 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-029-0204
Sample Location: SB029
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

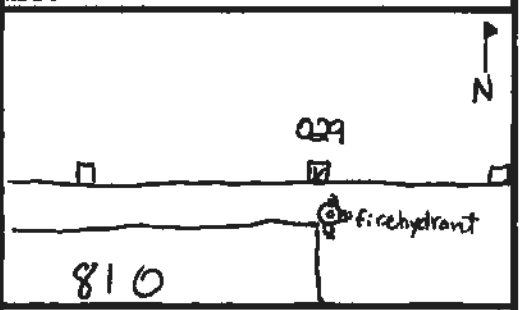
| Date: 4-10-11 32884 | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | 1550 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 1.3 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB030
DATE: 3-28-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 0-8" concrete core | | | | | | |
| | | | | 0759 2 | fine | brown | sand | | 0.6 | | | | |
| | | | | 0800 4 | fine | brown | sand | | 0.4 | | | | |
| | | | | 0805 6 | ~~fine tan-brown sand~~ | | void drop | | — | | | | |
| | | | | 0806 8 | ~~fine brown-red sand~~ | | VOID | | — | | | | |
| | | | | 0809 10 | ~~fine red sand~~ | | VOID | | — | | | | |
| | | | | 0810 15 | ~~fine red sand~~ | | VOID | | — | | | | |
| | | | | 0812 20 | fine-med | tan-red | sand w/ | | 2.3 | | | | |
| | | | | 25 | | black | sandy material | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |
| | | | | | note from 4'-13' | | | | | | | | |
| | | | | | there was a void | | | | | | | | |
| | | | | | w/ no soil | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-030-1520
Sample Location: SB030
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

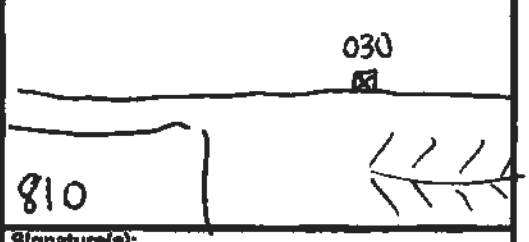
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·28·11 | 0800 | ~~[illegible]~~ | ~~[illegible]~~ | sand |
| Method: | 0832 | 15-20' | red w/ black | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 2.3 | | | | |
| 0.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD

Duplicate ID No.: 05-SS-030-1520-D

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB031
DATE: 3.28.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | 0-8" concrete core | | | | | | | |
| | | | | 0849 2 | fine | brown | sand | | 2.3 | | | | |
| | | | | 0850 4 | " | " | " | | 1.9 | | | | |
| | | | | 0853 6 | " | tan orange | sand | | 2.4 | | | | |
| | | | | 0855 8 | " | orange red | sand | | 1.5 | | | | |
| | | | | 0857 10 | " | red | sand | | 2.8 | | | | |
| | | | | 0859 15 | " | " | " | | 2.4 | | | | |
| | | | | 0900 20 | fine-med | red/tan | sand | | 1.2 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 8 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-031-0204
Sample Location: SB031
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

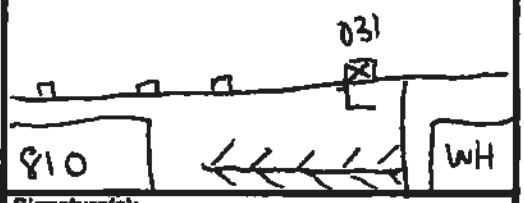
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-28-11 | 0850 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB032
DATE: 3.28.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 0-8" concrete | | core | | | | |
| | | | | 0912 2 | fine | brown | sand | | 1.4 | | | | |
| | | | | 0915 4 | " | " | " | | 1.7 | | | | |
| | | | | 0926 6 | " | " | " | | 1.0 | | | | |
| | | | | 0922 8 | fine | orange | tan sand | | 1.5 | | | | |
| | | | | 0925 10 | fine | orange | red sand | | 1.5 | | | | |
| | | | | 0929 15 | " | " | " " | | 0.5 | | | | |
| | | | | 0930 20 | fine-med | red-tan | sand | | 0.3 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-032-0204
Sample Location: SB032
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

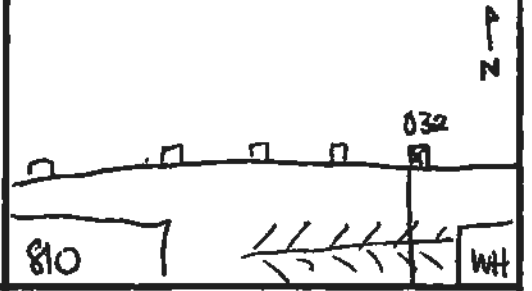
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-28-11 | 0915 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | 1 802 amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB033
DATE: 3-28-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | 0-8" concrete core | | | | | | | |
| | | | | 0940 2 | fine | brown | sand | | 1.6 | | | | |
| | | | | 0945 4 | " | " | " | | 0.4 | | | | |
| | | | | 0947 6 | " | " | " | | 0.7 | | | | |
| | | | | 0950 8 | fine | orange/brown | sand | | 0.9 | | | | |
| | | | | 0952 10 | fine | orange/red | sand | | 1.3 | | | | |
| | | | | 0955 15 | fine | red | sand | | 0.8 | | | | |
| | | | | 0959 20 | fine-med | red/tan | sand | | 0.8 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-033-0204
Sample Location: SB033
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

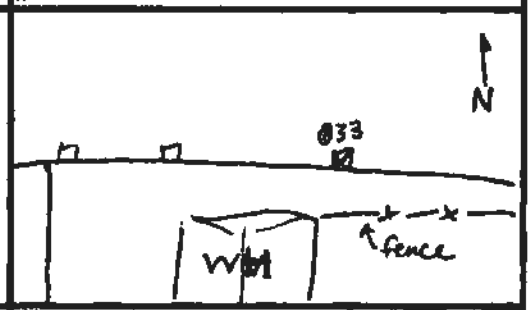
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-28-11 | 0945 | 2-4 | brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz. amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB034
DATE: 3-28-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0-8" concrete core | | | | | | | | |
| | | | | 1007 2 | fine | brown | sand | | 1.4 | | | | |
| | | | | 1010 4 | " | " | " | | 0.9 | | | | |
| | | | | 1012 6 | " | " | " | | 0.7 | | | | |
| | | | | 1015 8 | fine | tan orange | sand | | 2.2 | | | | |
| | | | | 1017 10 | fine | orange red | sand | | 1.2 | | | | |
| | | | | 1020 15 | fine | red | sand | | 1.2 | | | | |
| | | | | 1022 20 | fine-med | red tan | sand | | 1.6 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 8 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-034-0204
Sample Location: SB034
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

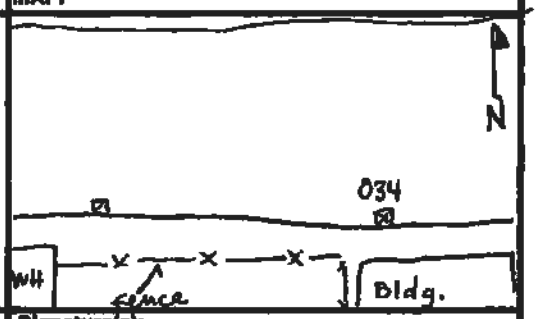
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-28-11 | 1010 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40ml VOA | | |
| TRPH | 1 8oz amber jar | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB035
DATE: 9.28.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | 0-8" concrete core | | | | | | |
| | | | | 1025 2 | fine | brown | sand | | 0.9 | | | | |
| | | | | 1025 4 | " | " | " | | 0.7 | | | | |
| | | | | 1029 6 | " | " | " | | 0.5 | | | | |
| | | | | 1030 8 | fine | orange/brown | sand | | 1.8 | | | | |
| | | | | 1033 10 | fine | orange/red | sand | | 1.0 | | | | |
| | | | | 1035 15 | " | " | " " | | 1.0 | | | | |
| | | | | 1039 20 | fine-med | redtan | sand | | 0.8 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reporse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-035-
Sample Location: SB035
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

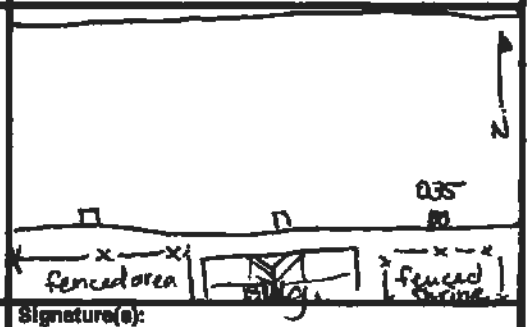
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·28·11 | 1025 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.7 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB036
DATE: 3.28.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | 0-8" concrete core | | | | | | | | |
| | | | | 1052 2 | fine brown sand | | | | 0.7 | | | | |
| | | | | 1055 4 | " | " | " | | 0.3 | | | | |
| | | | | 1057 6 | " | " | " | | 1.2 | | | | |
| | | | | 1100 8 | fine orange/brown sand | | | | 1.0 | | | | |
| | | | | 1103 10 | fine orange/red sand | | | | 3.0 | | | | |
| | | | | 1105 15 | fine red sand | | | | 3.1 | | | | |
| | | | | 1109 20 | fine-med tan/red sand | | | | 2.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-036-0201
Sample Location: SB036
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

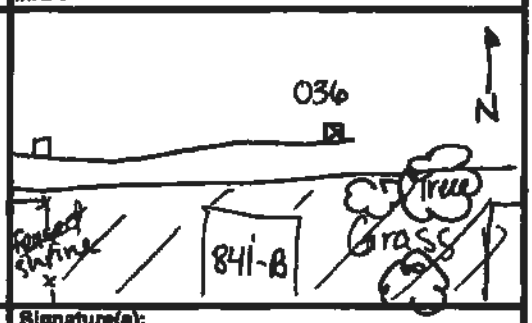
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-28-11 | 1055 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.3 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB037
DATE: 4-16-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | Concrete core ~7" | | | | | | | | |
| | | | | 0622 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 0625 4 | " | " | " | | 0.0 | | | | |
| | | | | 0627 6 | fine brown orange sand | | | | 0.0 | | | | |
| | | | | 0630 8 | fine orange red sand | | | | 0.0 | | | | |
| | | | | 0633 10 | fine red clayey sand | | | | 0.0 | | | | |
| | | | | 0635 15 | fine " | " | " " | | 0.0 | | | | |
| | | | | 0640 20 | fine-med red/tan sand | | | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-037-0204
Sample Location: SB037
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

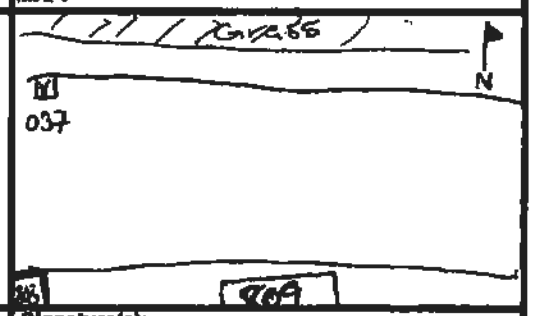
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-6-11 | 0825 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




Circle if Applicable:

MS/MSD

Duplicate ID No.: 05-SS-037-0204-D

Signature(s): MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB038
DATE: 4.6.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | ~Concrete core ~7" | | | | — | | | | |
| | | | | 0902 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0905 4 | " | " | " | | 0.0 | | | | |
| | | | | 0907 6 | fine | brown/orange | sand | | 0.0 | | | | |
| | | | | 0910 8 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 0912 10 | fine | red clayey | sand | | 0.0 | | | | |
| | | | | 0916 15 | " | " | " " " | | 0.0 | | | | |
| | | | | 0920 20 | fine-med | red/tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02746

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

Sample ID No.: 05-SS-038-0207
Sample Location: SB038
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

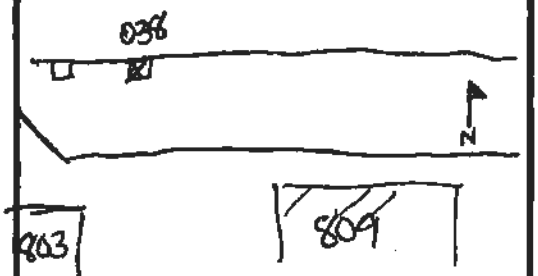
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-6-11 | 0905 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Check If Applicable:**

MS/MSD

Duplicate ID No.: X

Signature(s):

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB039
DATE: 4.6.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole* | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | Concrete core ~7" | | | | — | | | | |
| | | | | 0954 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0955 4 | " | " | " | | 0.0 | | | | |
| | | | | 0957 6 | fine | brown orange | sand | | 0.0 | | | | |
| | | | | 1001 8 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 1003 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1005 15 | " | " | " " | | 0.0 | | | | |
| | | | | 1012 20 | fine-med | tan/red | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-039-0204
Sample Location: SB039
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.6.11 | 0955 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

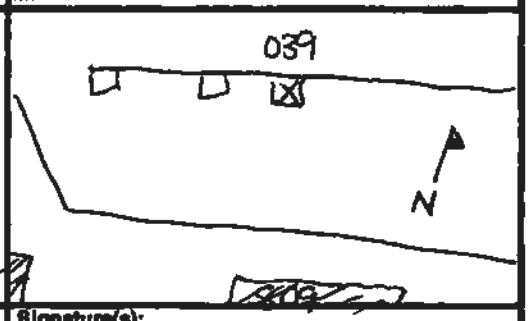
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | ≥1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

Collected GW screening here @ 50' bls for PAH, TRPH, Total Pb, EDB & VOCs @ 1045 am

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB040
DATE: 4-6-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core ~7" | | | | — | | | | |
| | | | | 1312 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1315 4 | " | " | " | | 0.0 | | | | |
| | | | | 1317 6 | fine | brown/orange | sand | | 0.0 | | | | |
| | | | | 1322 8 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 1232 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1325 15 | " | " | " " " | | 0.0 | | | | |
| | | | | 1330 20 | fine-med | red/tan | sand | | | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-040-0204
Sample Location: ~~[illegible]~~ SB040
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

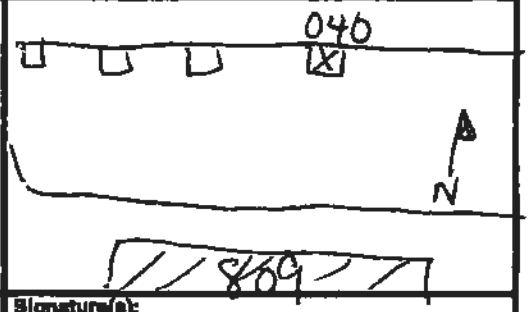
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-6-11 | 1315 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | Y |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB0541
DATE: 4.6.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | - concrete core ~ | | | | " - | | | | |
| | | | | 1343 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1345 4 | " | " | " | | 0.0 | | | | |
| | | | | 1348 6 | fine | brown orange | sand | | 0.0 | | | | |
| | | | | 1350 8 | fine | orange red | sand | | 0.0 | | | | |
| | | | | 1355 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1358 15 | " | " | " " | | 0.0 | | | | |
| | | | | 1400 20 | fine-med | red/tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-041-0204
Sample Location: SB041
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

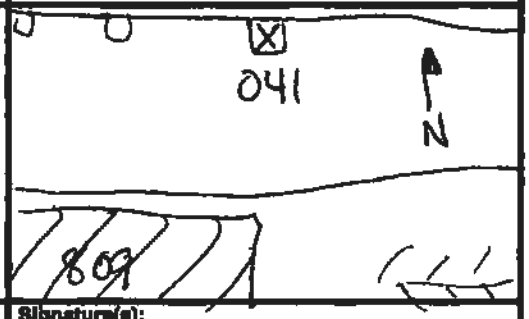
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.6.11 | 1345 | 2-4 | brown | Sand (fine) |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No.: X

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: T12G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB042
DATE: 9-6-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | — Concrete core ~7" | | | | — | | | | |
| | | | | 1413 < 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1415 < 4 | " | " | " | | 0.0 | | | | |
| | | | | 1419 < 6 | fine | orangebrown | Sand | | 0.0 "sweet" | odor | | | |
| | | | | 1423 < 8 | fine | redbrange | sand | | 0.0 | | | | |
| | | | | 1425 < 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1429 < 15 | " | " | " " " | | 0.0 | | | | |
| | | | | 1433 < 20 | fine-med. | tan/red | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: DS-SS-042-0204
Sample Location: SB042
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

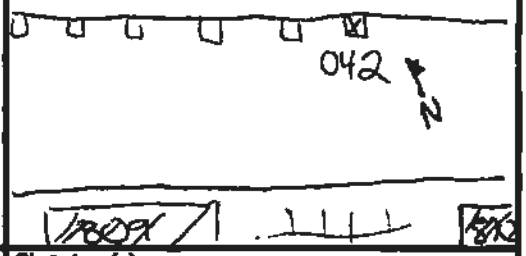
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4·6·11 | 1415 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40ml VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB043
DATE: 7.6.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | – concrete core ~16" | | | | – | | | | |
| | | | | 1518 < 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1520 < 4 | " | " | " | | 0.0 | | | | |
| | | | | 1523 < 6 | fine | brown/orange | sand | | 0.0 | | | | |
| | | | | 1525 < 8 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 1530 < 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1535 < 15 | " | " | " | | 0.0 | | | | |
| | | | | 1535 < 20 | fine-med. | red & tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-043-[illegible]
Sample Location: SB043
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

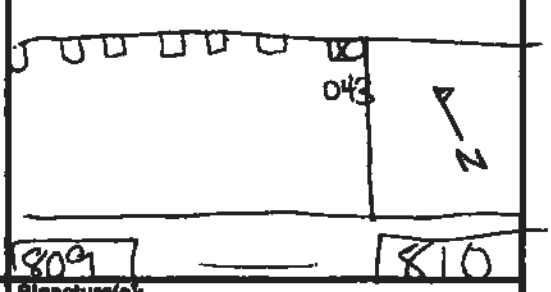
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.6.11 | 1520 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz. amber | ✓ | |
| | 10oz | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB044
DATE: 4.6.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core - 7" | | | | — | | | | |
| | | | | 1559 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 1602 4 | " | " | " | | 0.0 | | | | |
| | | | | 1603 6 | fine brown/orange sand | | | | 0.0 | | | | |
| | | | | 1605 8 | fine orange/red sand | | | | 0.0 | | | | |
| | | | | 1609 10 | fine red clayey sand | | | | 0.0 | | | | |
| | | | | 1612 15 | " | " | " " | | 0.5 | | | | |
| | | | | 1615 20 | fine-med. red/tan & grey sand | | | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-044-0204
Sample Location: SB044
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

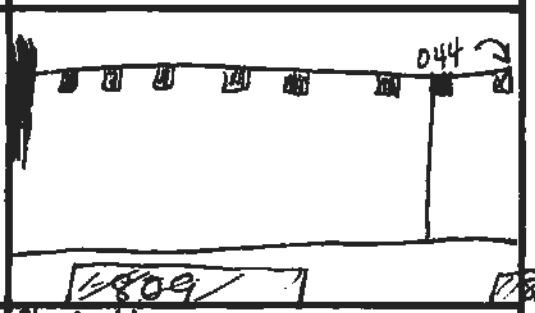
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.6.11 | 1600 | 2-4 | brown | fine ~~[illegible]~~ sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | ≥1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** LMBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB045
DATE: 4-8-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1138 < 0 | concrete core ~6" | | | | — | | | | |
| | | | | 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1140 < 4 | " | " | " | | 0.0 | | | | |
| | | | | 1143 < 6 | " | orange/brown | sand | | 0.0 | | | | |
| | | | | 1145 < 8 | " | orange/red | " | | 0.0 | | | | |
| | | | | 1150 < 10 | " | red | clayey sand | | 0.0 | | | | |
| | | | | 1155 < 15 | " | " | " " | | 0.0 | | | | |
| | | | | 1159 < 20 | fine-med. | red/tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-045-0204
Sample Location: SB045
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

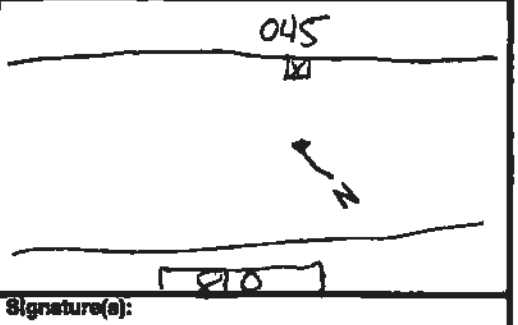
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-6-11 | 1140 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: 05-SS-045-0204-D |
|---|---|

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB046
DATE: 4.8.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core ~7" | | | | | | | | |
| | | | | 1215 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1220 4 | " | " | " | | 0.0 | | | | |
| | | | | 1224 6 | fine | orange brown | sand | | 0.0 | | | | |
| | | | | 1227 8 | fine | red | orange sand | | 0.0 | | | | |
| | | | | 1233 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1235 15 | " | " | " | " | 0.0 | | | | |
| | | | | 1238 20 | fine-med | red/tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-0460202
Sample Location: SS046
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

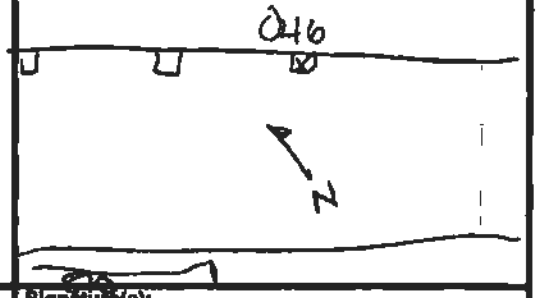
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-8-11 | 1220 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




Check if Applicable:
MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB047
DATE: 4.8.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core ~7" | | | | — | | | | |
| | | | | 1303 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1305 4 | " | " | " | | 0.0 | | | | |
| | | | | 1308 6 | fine | orange brown | sand | | 0.0 | | | | |
| | | | | 1311 8 | fine | red orange | sand | | 0.0 | | | | |
| | | | | 1315 10 | fine | red clayey | sand | | 0.0 | | | | |
| | | | | 1319 15 | " | " | " " | | 0.0 | | | | |
| | | | | 1324 20 | fine-med | red & tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-047-02
Sample Location: S2047
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

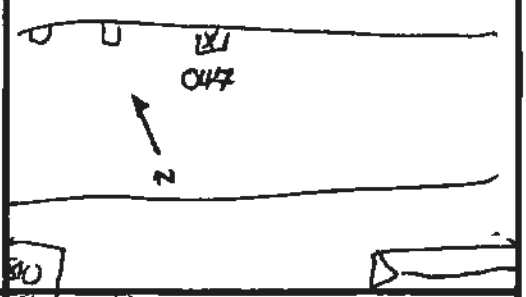
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-6-11 | 1305 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | 1 8oz amber jar | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB048
DATE: 9-8-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core ~7" | | | | — | | | | |
| | | | | 1348 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1350 4 | " | " | " | | 0.0 | | | | |
| | | | | 1354 6 | fine | orange/brown | sand | | 0.0 | | | | |
| | | | | 1358 8 | fine | red orange | sand | | 0.0 | | | | |
| | | | | 1401 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1405 15 | " | " | " " " | | 0.0 | | | | |
| | | | | 1407 20 | fine-med. | red & tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: OS-SS-048-0204
Sample Location: SB048
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

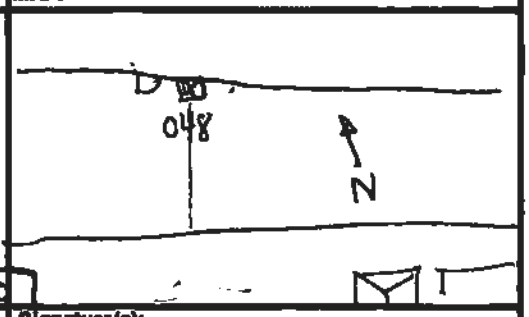
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.8.11 | 1350 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 ml VOA | ✓ | |
| TRPH | | | |
| PAHs | 2 1 8oz amber | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




Circle if Applicable:

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

Signature(s):

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB049
DATE: 4.8.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core ~7" | | | | — | | | | |
| | | | | 1553 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 1555 4 | " | " | " | | 0.0 | | | | |
| | | | | 1559 6 | fine orange brown sand | | | | 0.0 | | | | |
| | | | | 1602 8 | fine red orange sand | | | | 0.0 | | | | |
| | | | | 1607 10 | fine red clayey sand | | | | 0.0 | | | | |
| | | | | 1611 15 | " | " | " " | | 0.0 | | | | |
| | | | | 1615 20 | fine-med. red & tan sand | | | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-049-0204
Sample Location: SB049
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-8-11 | 1555 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

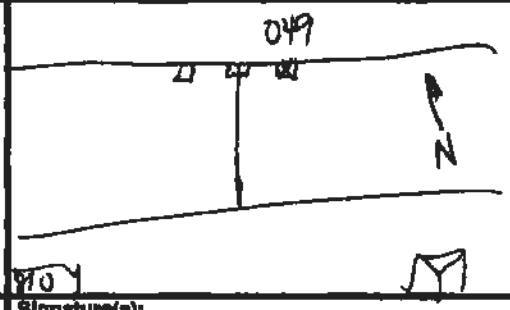
| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | >1 8oz. amber | | |

**OBSERVATIONS / NOTES:**

collect GW screen sample @ 50' for TRPH, PAH, VOCs, EDB, & Total Pb

time @ 1630

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB050
DATE: 4.8.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core ~8" | | | | — | | | | |
| | | | | 1645 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1650 4 | " | " | " | | 0.0 | | | | |
| | | | | 1654 6 | fine | orange | brown sand | | 0.0 | | | | |
| | | | | 1659 8 | fine | red | orange sand | | 0.0 | | | | |
| | | | | 1700 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1709 15 | " | " | " " " | | 0.0 | | | | |
| | | | | 1712 20 | fine - | med | red & tan sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): ____

Remarks: ____

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-050-0204
Sample Location: S8050
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

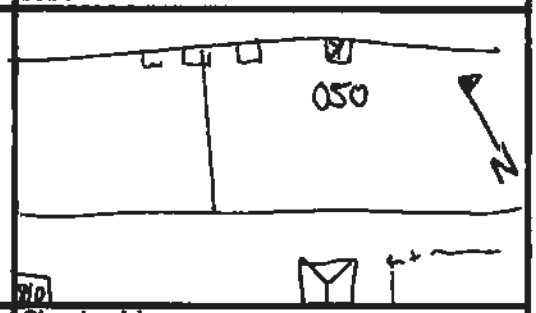
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-8-11 | 1150 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | 1 8oz amber | ✓ | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB051
DATE: [illegible]
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core | | ~7' | | — | | | | |
| | | | | 1312 2 | fine | brown | sand | | 0.1 | | | | |
| | | | | 1315 4 | " | " | " | | 0.1 | | | | |
| | | | | 1318 6 | fine | orange brown | sand | | 0.0 | | | | |
| | | | | 1320 8 | fine | orange red | sand | | 0.3 | | | | |
| | | | | 1324 10 | fine | red | clayey sand | | 0.6 | | | | |
| | | | | 1329 15 | " | " | " " | | 0.8 | | | | |
| | | | | 1333 20 | fine-med | red, tan | sand | | 2.8 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SB-051-0204
Sample Location: LOG SB051
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

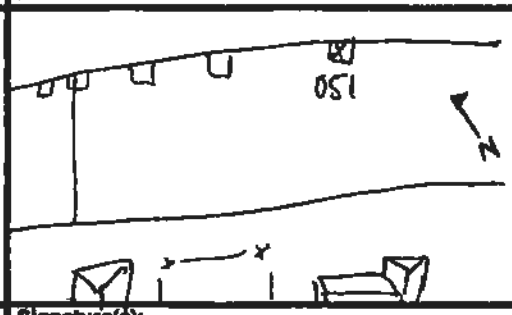
| Date: 10.4.11 | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | 1315 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | 1 8oz amber | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No.: X

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB052
DATE: 4.10.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core ~7" | | | | — | | | | |
| | | | | 1335 2 | fine | brown | sand | | 0.7 | | | | |
| | | | | 1340 4 | f " | " | " | | 0.9 | | | | |
| | | | | 1343 6 | fine | orange | sand | | 0.6 | | | | |
| | | | | 1346 8 | fine | red orange | sand | | 1.5 | | | | |
| | | | | 1350 10 | fine | red clayey | sand | | 1.6 | | | | |
| | | | | 1352 15 | " | " | " " | | 1.4 | | | | |
| | | | | 1354 20 | fine-med | red & tan | sand | | 1.9 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-052-0204
Sample Location: SB052
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

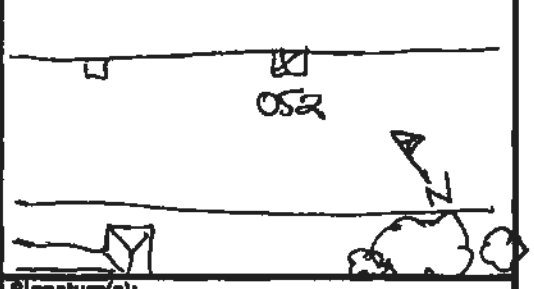
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4·10·11 | 1340 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB053
DATE: 4·10·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1355 | 0 | Concrete core ~10" | | | — | | | | |
| | | | | 1359 | 2 | fine | grey brown sand moist petro-like odor | | >3600 | | | | |
| | | | | 1400 | 4 | fine | orange sand petro-like odor | | 259 | | | | |
| | | | | 1404 | 6 | fine | red orange sand slight petro odor | | 23.9/4.6 (PID/CO) | (NET) 19.3 | | | |
| | | | | 1405 | 8 | fine | red orange sand | | 19.2/3.4/ | 15.8 | | | |
| | | | | 1406 | 10 | fine | red clayey sand | | 2.0 | | | | |
| | | | | 1407 | 15 | fine | red sand | | 7.9 | | | | |
| | | | | 1410 | 20 | fine-med | tan & red sand | | 17.6/1.2/ | 16.4 | | | |
| | | | | 1415 | 25 | fine-med | white/tan/red sand moist | | 1.4 | | | | |
| | | | | | 30 | fine-med | tan/white sand Saturated | | 18.4/1.2/ | 17.2 | | | |
| | | | | | 35 | | | | | | | | |
| | | | | in water table | 40 | | NM | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: DS-SS-053-0002
Sample Location: SB053
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.10.11 | 1355 | 0-2 | gray brown | moist sand (fine) petro like odor |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): >3600 | | | | |

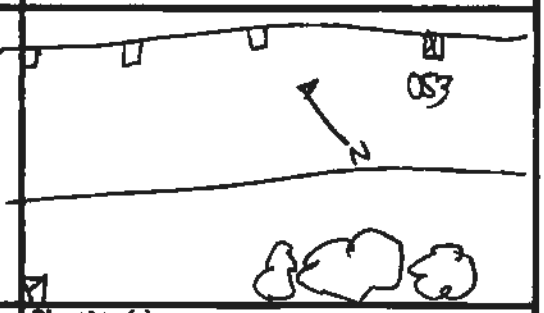
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber | ✓ | |

**OBSERVATIONS / NOTES:**

Collect GW screening sample for PAH TRPH VOC EDB Total Pb from 40' bls @ 1430

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB054
DATE: 4.18.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete core ~7" | | | | — | | | | |
| | | | | 1512 < 2 | fine | brown | sand | | 1.3 | | | | |
| | | | | 1515 < 4 | " | " | " | | 1.0 | | | | |
| | | | | 1518 < 6 | fine | orange red | sand | | 1.9 | | | | |
| | | | | 1520 < 8 | fine | red | clayey sand | | 1.4 | | | | |
| | | | | 1524 < 10 | " | " | " " | | 1.4 | | | | |
| | | | | 1528 < 15 | fine | red | sand | | 1.4 | | | | |
| | | | | 1530 < 20 | fine-med | tan/red | sand | | 2.3 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.1

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-054-0004
Sample Location: SB054
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

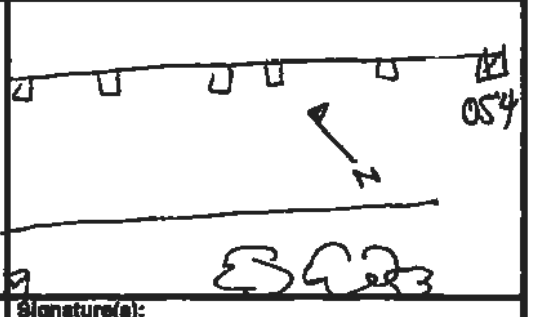
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-10-11 | 1515 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.9 ppm | | | | |
| 1.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 2 1 8oz. amber | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB055
DATE: 4.5.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | -concrete core ~7" | | | | | | | | |
| | | | | 1423 2 | fine | brown | sand | | 4.0 | | | | |
| | | | | 1425 4 | " | " | " | | 5.1 | | | | |
| | | | | 1427 6 | fine | brown/orange | sand | | 4.4 | | | | |
| | | | | 1430 8 | fine | orange red | sand moist | | 1.5 | | | | |
| | | | | 1432 10 | fine | red | clayey sand | | 1.4 | | | | |
| | | | | 1435 15 | fine | " | " | " | 1.6 | | | | |
| | | | | 1440 20 | fine-med | red/tan | sand | | 0.3 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-055-0204
Sample Location: SB055
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

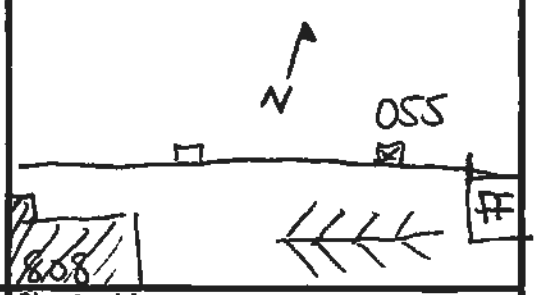
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4·5·11 | 1425 | 2-4 | brown | sand / fine |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 5.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB056
DATE: 4.5.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | — | Concrete core ~7" | | | — | | | | |
| | | | | 1329 2 | fine | brown sand | | | 0.0 | | | | |
| | | | | 1330 4 | " | " | " | | 0.4 | | | | |
| | | | | 1332 6 | fine | brown/orange sand | | | 0.0 | | | | |
| | | | | 1335 8 | fine | orange/red sand | | | 0.9 | | | | |
| | | | | 1337 10 | fine | red sand | | | 1.0 | | | | |
| | | | | 1340 15 | fine | red clayey sand | | | 1.6 | | | | |
| | | | | 1345 20 | fine-med | red/tan sand | | | 1.8 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-056-0204
Sample Location: SB056
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

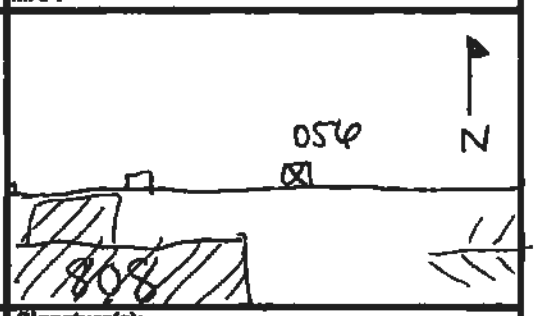
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.5.11 | 1330 | 2-4 | brown | sand fine |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: T12G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB057
DATE: 4.5.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | — | Concrete core ~7" | | | — | | | | |
| | | | | 1252 2 | fine | brown | Sand | | 0.0 | | | | |
| | | | | 1255 4 | " | " | " | | 0.1 | | | | |
| | | | | 1257 6 | fine | brown/orange | Sand | | 0.0 | | | | |
| | | | | 1300 8 | fine | orange/red | Sand | | 0.2 | | | | |
| | | | | 1303 10 | fine | red | Sand | | 0.2 | | | | |
| | | | | 1309 15 | " | " | " /clayey | | 0.0 | | | | |
| | | | | 1311 20 | fine-med | red/tan | Sand | | 0.1 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-057-0204
Sample Location: 4.5.11
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

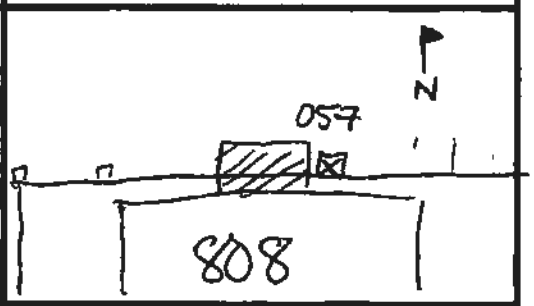
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.5.11 | 1255 | 2-4 | brown | Sand (fine) |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB058
DATE: 4.5.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | — concrete core ~7" | | | | — | | | | |
| | | | | 1043 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1045 4 | " | " | " | | 0.0 | | | | |
| | | | | 1047 6 | fine | orange brown | sand | | 0.0 | | | | |
| | | | | 1050 8 | fine | orange tan | sand | | 0.0 | | | | |
| | | | | 1055 10 | fine | red orange | sand (clayey) | | 0.0 | | | | |
| | | | | 1059 15 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1102 20 | fine-med | red tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-058-0204
Sample Location: SB058
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

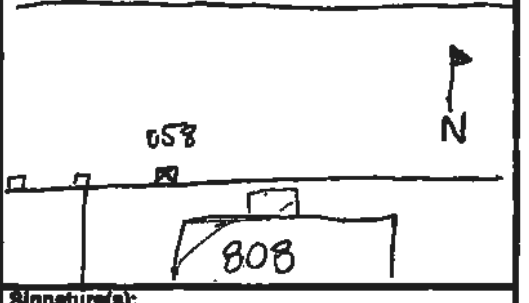
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.5.11 | 1045 | 2-4 | brown | sand (fine) |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB059
DATE: 4.5.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1007 | 0 | — concrete core ~8" | | | — | | | | |
| | | | | 1010 | 2 | fine | brown sand | | 0.3 | | | | |
| | | | | | 4 | " | " | " | 0.1 | | | | |
| | | | | 1012 | 6 | " | " | " | 0.3 | | | | |
| | | | | 1015 | 8 | fine | brown/orange sand | | 0.8 | | | | |
| | | | | 1020 | 10 | fine | orange red sand | | 0.3 | | | | |
| | | | | 1025 | 15 | fine | red clayey sand | | 0.4 | | | | |
| | | | | 1030 | 20 | fine-med | tan/red sand | | 0.3 | | | | |
| | | | | | 25 | | | | | | | | |
| | | | | | 30 | | | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: DS-SS-059-0204
Sample Location: SB059
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

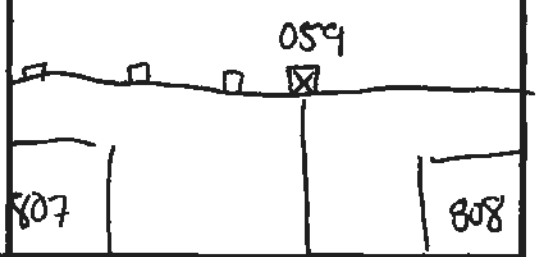
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.5.11 | 1010 | 2-4 | brown | sand (fine) |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz-amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB040
DATE: 4.5.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | – concrete core 8" | | | | | | | | |
| | | | | 0932 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 0935 4 | fine brown sand | | | | 0.0 | | | | |
| | | | | 0937 6 | fine brown/tan sand | | | | 0.0 | | | | |
| | | | | 0940 8 | fine tan orange sand | | | | 0.3 | | | | |
| | | | | 0945 10 | fine orange red clayey sand | | | | 0.3 | | | | |
| | | | | 0950 15 | fine red sand | | | | 0.4 | | | | |
| | | | | 0955 20 | fine-medium sand | | | | 0.4 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: DS-SS-060-0204
Sample Location: SB060
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

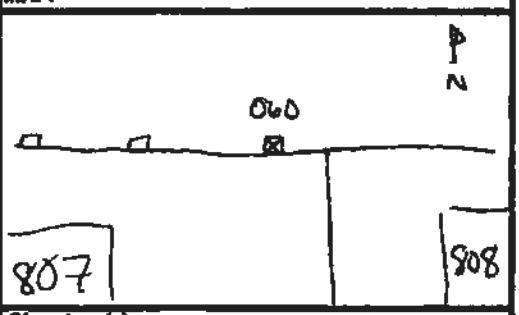
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-5-11 | 0935 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | 1 8oz amber jar | ✓ | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB061
DATE: 4-5-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | — | — | Concrete core 8" | | — | | | | |
| | | | | 0847 2 | fine | brown | sand w/ small stone | | 0.0 | | | | |
| | | | | 0850 4 | " | " | " w/ small stone | | 0.0 | | | | |
| | | | | 0853 6 | " | " | " | | 0.0 | | | | |
| | | | | 0855 8 | fine | orange tan | sand | | 0.0 | | | | |
| | | | | 0857 10 | fine | orange red | sandy clay | | 0.0 | | | | |
| | | | | 0859 15 | fine | red | sand | | 0.0 | | | | |
| | | | | 0902 20 | fine-med | red | sand | | 1.7 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-010-0204
Sample Location: SB061
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

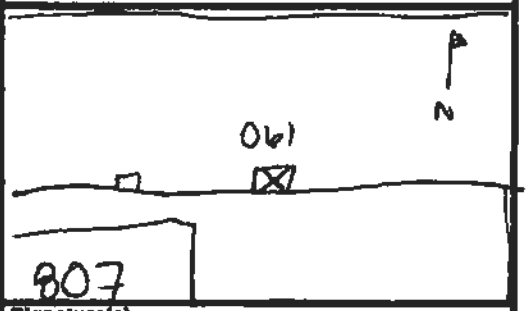
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-5-11 | 0850 | 2-4 | brown | fine sand w/ small stones |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD

Duplicate ID No.: X

Signature(s):

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB062
DATE: 4-5-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | — | concrete core ~8" | | | — | | | | |
| | | | | 0842 2 | fine | brown | sand | | 0.1 | | | | |
| | | | | 0845 4 | " | " | " | | 0.0 | | | | |
| | | | | 0848 6 | " | " | " | | 0.0 | | | | |
| | | | | 0850 8 | fine | tan/orange | sand | | 0.0 | | | | |
| | | | | 0852 10 | fine | orange red | sand | | 0.0 | | | | |
| | | | | 0855 15 | fine | red | sand | | 0.0 | | | | |
| | | | | 0858 20 | fine-med | red | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-062-0204
Sample Location: SB062
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

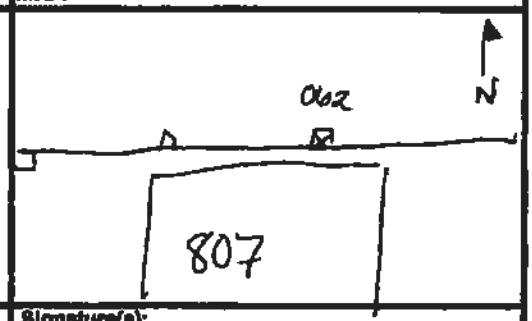
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-5-11 | 0745 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD | Duplicate ID No.: 05-SS-062- -D

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB063
DATE: 4.4.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1713K 0 | Concrete core ~7" | | | | | | | | |
| | | | | 1715K 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 1717K 4 | " | " | " | | 0.0 | | | | |
| | | | | 1719K 6 | " | " | " | | 0.0 | | | | |
| | | | | 1721K 8 | fine red brown sand | | | | 0.0 | | | | |
| | | | | 1723K 10 | fine red orange sand | | | | 0.4 | | | | |
| | | | | 1725K 15 | fine red sand | | | | 0.0 | | | | |
| | | | | 20 | fine-med red/tan sand | | | | | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-063-2204
Sample Location: SB063
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

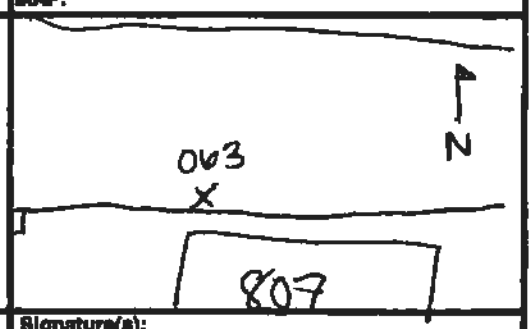
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.4.11 | 1715 | 2-4 | brown | sand (fine) |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40ml VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB0764
DATE: 4.4.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1634C 0 | Concrete Core ~7" | | | | — | | | | |
| | | | | 1635C 2 | fine | brown | sand | | 1.7 | | | | |
| | | | | 4 | " | " | " | | 1.3 | | | | |
| | | | | 1638C 6 | " | " | " | | 1.8 | | | | |
| | | | | 1640C 8 | fine | red brown | sand | | 2.0 | | | | |
| | | | | 1644C 10 | fine | red | sand | | 1.8 | | | | |
| | | | | 1645C 15 | fine | red orange | sand | | 2.1 | | | | |
| | | | | 1650C 20 | fine-med | red tan | sand | | 0.9 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-064-0204
Sample Location: SB064
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

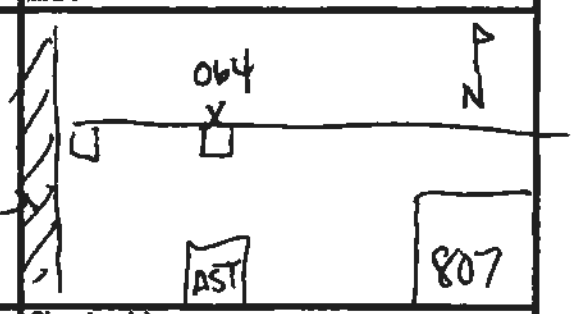
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.4.11 | 1035 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.3 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | >1 8oz amber jar | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB015
DATE: 4-4-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1554L 0 | Concrete core 4" | | | | — | | | | |
| | | | | 1600L 2 | fine | brown | sand | | 0.3 | | | | |
| | | | | 4 | " | " | " | | 0.0 | X | | | |
| | | | | 1602L 6 | fine | red tan | sand | | 0.4 | | | | |
| | | | | 1604L 8 | fine | red orange | sand | | 1.3 | | | | |
| | | | | 1608L 10 | fine | red | sand | | 1.7 | | | | |
| | | | | 1610L 15 | fine | red | sand | | 0.7 | | | | |
| | | | | 1612L 20 | fine-med | red tan | sand | | | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-065-0204
Sample Location: SB065
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

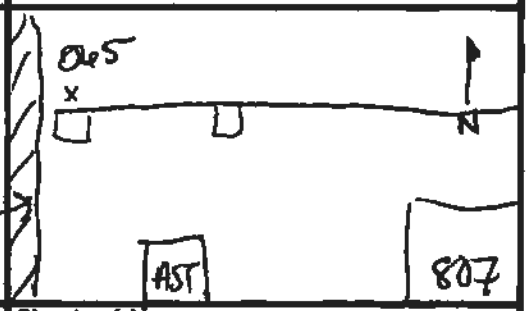
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4·4·11 | 1600 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | >1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

Signature(s):

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB0660
DATE: 3·28·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Drillar BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1411 0 | - | - | - - - - - | - | - - | | | | |
| | | | | 2 | fine | red/brown | sand | | 1.1 | | | | |
| | | | | 1415 4 | " | " | " " | | 1.2 | | | | |
| | | | | 1420 6 | " | " | " " | | 1.5 | | | | |
| | | | | 1424 8 | " | " | " " | | 1.7 | | | | |
| | | | | 1426 10 | fine | red | clayey sand moist | | 1.7 | | | | |
| | | | | 1429 15 | " | " tan | " " | | 0.9 | | | | |
| | | | | 1436 20 | " | red | sand | | 0.4 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-0606-0406
Sample Location: SB0606
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

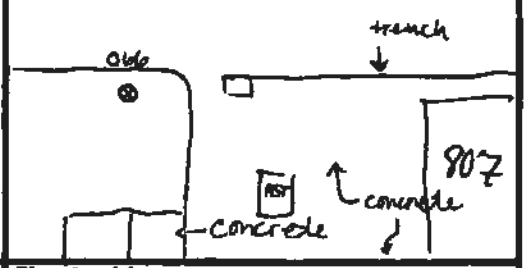
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·28·11 | 1420 | 4-6 | red brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.5 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB067
DATE: 4-11-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete ~4" | | — | | — | | | | |
| | | | | 0812 < 2 | fine | orange brown | mix sand | | 0.0 | | | | |
| | | | | 0813 < 4 | " | brown red | sand | | 0.0 | | | | |
| | | | | 0815 < 6 | fine | red | sand | | 0.0 | | | | |
| | | | | 0817 < 8 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 0820 < 10 | " | " | " " " | | 0.0 | | | | |
| | | | | 0824 < 15 | fine | red | sand | | 0.0 | | | | |
| | | | | 0826 < 20 | fine-med | tan/red | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-067-0406
Sample Location: SS067
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

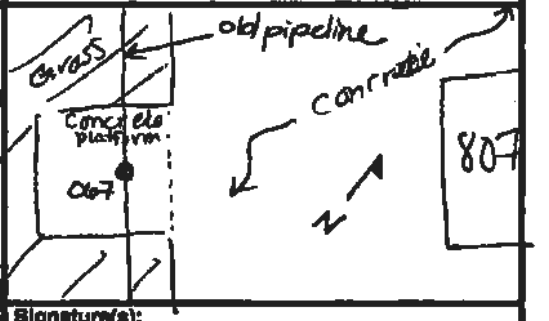
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-11-11 | 0815 | 4-6 | red brown | sand (fine) |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | >1 8oz. amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No.: 05-SS-067-0406-D

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB068
DATE: 3-28-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1542 < 0 | - | - | - - - | | - | | | | |
| | | | | 1544 < 2 | fine | brown | sand | | 0.7 | | | | |
| | | | | 1545 < 4 | " | " | " | | 0.9 | | | | |
| | | | | 1547 < 6 | " | " | " | | 1.1 | | | | |
| | | | | 1549 < 8 | " | " | " | | 1.7 | | | | |
| | | | | 1600 < 10 | " | " | " | | 2.5 | | | | |
| | | | | 1602 < 15 | " | " | " moist | | 2.4 | | | | |
| | | | | 20 | med fine | red/brown | sand | | 3.1 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-068-0402
Sample Location: SB068
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

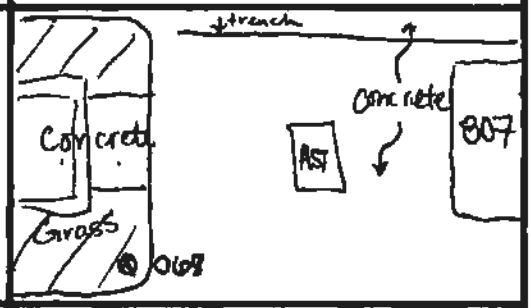
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-28-11 | 1545 | 4-6 | brown | fine Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB0609
DATE: 3.28.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1605 0 | - | - | - | | - | | | | |
| | | | | 1608 2 | fine | brown | sand | | 1.8 | | | | |
| | | | | 1610 4 | " | " | " | | 2.3 | | | | |
| | | | | 1612 6 | " | " | " | | 1.7 | | | | |
| | | | | 1615 8 | " | " | " | | 0.4 | | | | |
| | | | | 1618 10 | fine | orange/red | sand | | 0.8 | | | | |
| | | | | 1622 15 | fine | red | sand | | 2.1 | | | | |
| | | | | 20 | fine-med | red | sand | | 3.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.8

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-069-040p
Sample Location: SB 069
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

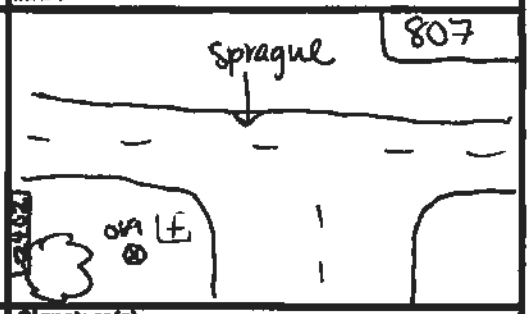
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-28-11 | 1610 | 4-6 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB070
DATE: 3.29.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Drilling BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 0721 | | | | | | | | | |
| | | | | 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0727 | " | " | " | | 0.0 | | | | |
| | | | | 4 | | | | | | | | | |
| | | | | 0730 | fine | tan | sand | | 0.0 | | | | |
| | | | | 6 | | | | | | | | | |
| | | | | 0733 | fine | tan orange | sand | | 0.0 | | | | |
| | | | | 8 | | | | | | | | | |
| | | | | 0735 | | | | | | | | | |
| | | | | 10 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 0738 | | | | | | | | | |
| | | | | 15 | fine | red | sand | | 0.0 | | | | |
| | | | | 0738 | | | | | | | | | |
| | | | | 20 | " | " | " | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-070-0406
Sample Location: SB070
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

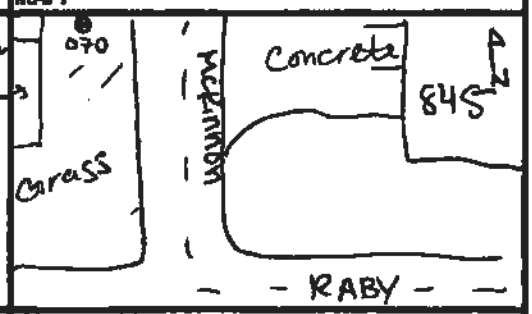
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-29-11 | 0730 | 4-6 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB071
DATE: 4.11.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistancy or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | asphalt ~3" | | | | — | | | | |
| | | | | 0915 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 0918 4 | " | " | " | | 0.0 | | | | |
| | | | | 0920 6 | fine brown orange sand | | | | 0.0 | | | | |
| | | | | 0924 8 | " | " | " " " | | 0.0 | | | | |
| | | | | 0928 10 | fine red slayey sand | | | | 0.0 | | | | |
| | | | | 0930 15 | " | " | " " " | | 0.0 | | | | |
| | | | | 0933 20 | fine red sand | | | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-071-0404
Sample Location: SB071
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

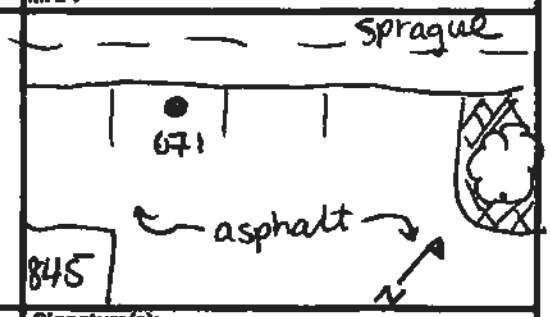
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4·11·11 | 0920 | 4 - 6' | brown/orange | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB072
DATE: 4.11.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | FID/PID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | asphalt ~3" | | | | — | | | | |
| | | | | 0844 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0847 4 | " | " | " | | 0.0 | | | | |
| | | | | 0850 6 | fine | brown/orange | sand | | 0.0 | | | | |
| | | | | 0854 8 | " | " | " | " | 0.0 | | | | |
| | | | | 0856 10 | fine | red | sand | | 0.0 | | | | |
| | | | | 0901 15 | " | " | " | | 0.0 | | | | |
| | | | | 0904 20 | fine-med | red/tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-072-0408
Sample Location: SB072
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

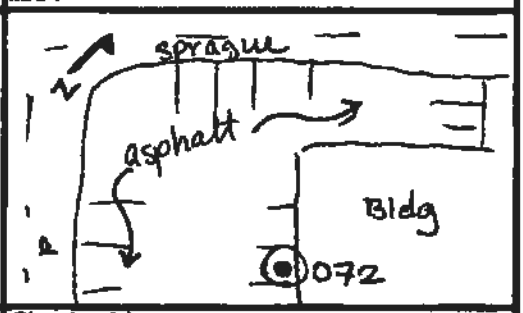
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.11.11 | 0850 | 4-6 | brown/orange | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB073
DATE: 3.29.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | - | - | - - - | | — | | | | |
| | | | | 0742 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0744 4 | fine | red/tan | sand | | 0.0 | | | | |
| | | | | 0745 6 | fine | red | sand | | 0.0 | ✓ | | | |
| | | | | 0747 8 | " | " | " | | 0.0 | | | | |
| | | | | 0750 10 | " | " | " | | 0.0 | | | | |
| | | | | 0752 15 | " | " | " | | 0.0 | | | | |
| | | | | 0755 20 | " | " | " | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Includes monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-073-0406
Sample Location: SB073
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

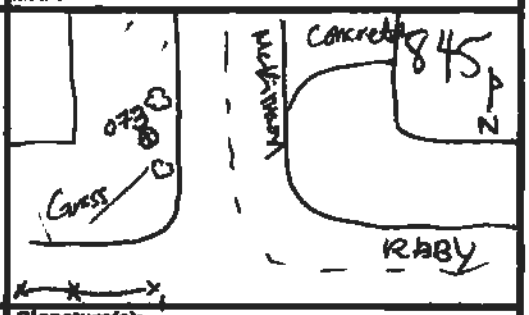
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3.29.11 | 0745 | 4-6 | red | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




Circle if Applicable: MS/MSD

Duplicate ID No.: 05-SS-073-0406-D

Signature(s): MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB074
DATE: 3.29.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | - | | - | | — | | | | |
| | | | | 0823 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0824 4 | fin | tan/brown | sand | | 0.0 | | | | |
| | | | | 0825 6 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 0827 8 | fine | red | sand | | 0.0 | | | | |
| | | | | 0832 10 | " | | " | " | 0.0 | | | | |
| | | | | 0833 15 | " | | " | " | 0.0 | | | | |
| | | | | 0835 20 | " | | " | " | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 8 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-0724-0402
Sample Location: SB072
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

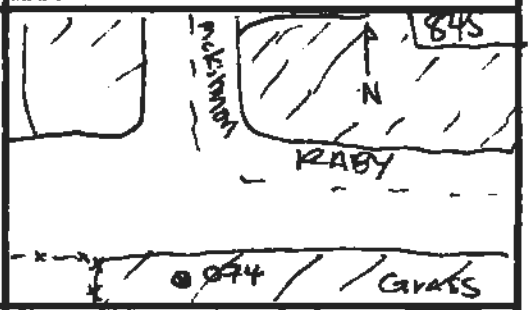
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3.29.11 | 0825 | 4-6 | mottled | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




Circle if Applicable: MS/MSD

Duplicate ID No.: X

Signature(s): MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB075
DATE: 4-11-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | asphalt ~3" | | | | — | | | | |
| | | | | 1015 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 1018 4 | " | " | " | | 0.0 | | | | |
| | | | | 1020 6 | " | " | " | | 0.0 | | | | |
| | | | | 1024 8 | fine orangebrown sand | | | | 0.0 | | | | |
| | | | | 1028 10 | " | " | " " | | 0.0 | | | | |
| | | | | 1030 15 | fine red clayey sand | | | | 0.0 | | | | |
| | | | | 1032 20 | fine | " | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-075-0406
Sample Location: SB075
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

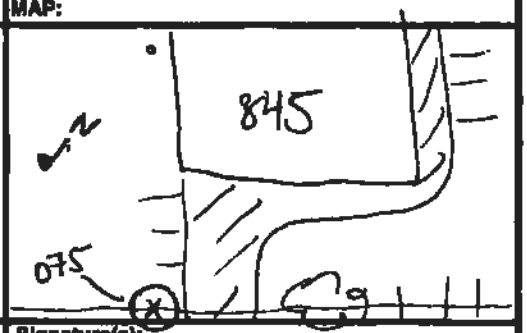
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-11-11 | 1020 | 4-6 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 2 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB076
DATE: 4-11-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | asphalt ~3" | | | | — | | | | |
| | | | | 0950 < 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 0953 < 4 | " | " | " | | 0.0 | | | | |
| | | | | 0955 < 6 | " | " | " | | 0.0 | | | | |
| | | | | 0959 < 8 | fine orange sand | | | | 0.0 | | | | |
| | | | | 1001 < 10 | fine red clayey sand | | | | 0.0 | | | | |
| | | | | 1004 < 15 | Met refusal - concrete | | | | NM | | | | |
| | | | | [redacted] | | | | | | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | some debris | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-0746-0406
Sample Location: SB0746
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

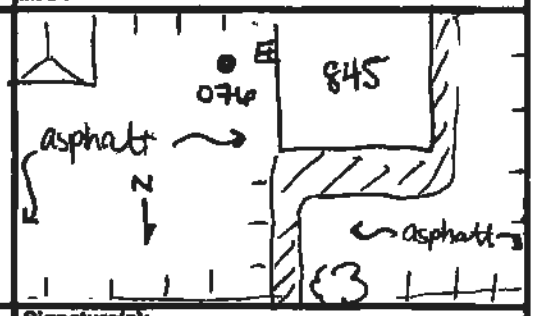
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-11-11 | 0955 | 4-6 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB077
DATE: 4-11-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | asphalt | | ~3" | | — | | | | |
| | | | | 1041 < 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1043 < 4 | " | " | " | | 0.0 | | | | |
| | | | | 1045 < 6 | " | " | " | | 0.0 | | | | |
| | | | | 1048 < 8 | fine | orangebrown | sand | | 0.0 | | | | |
| | | | | 1050 < 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1053 < 15 | " | " | " " " | | 0.9 | | | | |
| | | | | 1056 < 20 | fine-med | red/ orange | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-077-0104
Sample Location: SB077
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

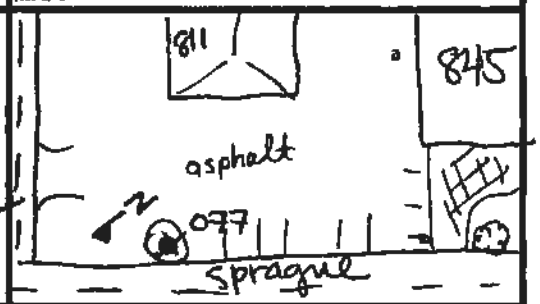
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.11.11 | 1045 | 4-6 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40ml VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz. amberjar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB078
DATE: 3·29·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | - | - | - | - | - | | | | |
| | | | | 0902 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0903 4 | fine | brown/orange | sand | | 0.0 | | | | |
| | | | | 0905 6 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 0907 8 | fine | red | sand | | 0.0 | | | | |
| | | | | 0909 10 | " | " | " | | 0.0 | | | | |
| | | | | 0912 15 | " | " | " | | 0.0 | | | | |
| | | | | 0913 20 | " | " | " | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-078-0406
Sample Location: SB078
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

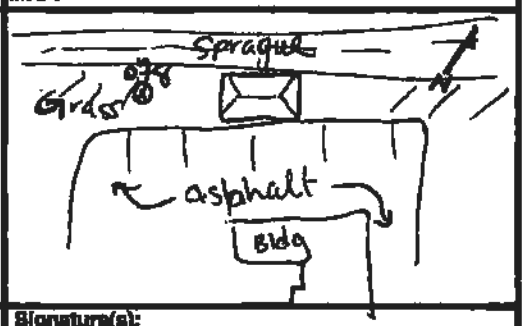
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-29-11 | 0905 | 4-6 | orange red | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0,0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 ml VOA | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MB

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB079
DATE: 3-29-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 0920 2 | fine | brown | sand | | 0.6 | | | | |
| | | | | 0923 4 | fine | tan brown | sand | | 0.4 | | | | |
| | | | | 0925 6 | fine | redbrown | sand | | 0.4 | | | | |
| | | | | 0927 8 | fine | red | sand | | 0.3 | | | | |
| | | | | 0930 10 | fine | red | sand | | 0.3 | | | | |
| | | | | 0933 15 | " | " | " | | 0.7 | | | | |
| | | | | 0936 20 | " | " | " | | 7.5 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SB-079-0408
Sample Location: SB079
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

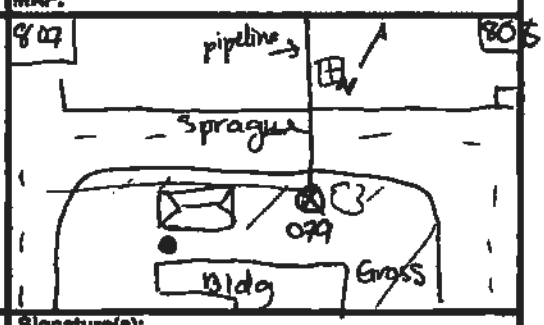
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-29-11 | 0925 | 4-6 | red brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | 1 8oz. amber jar | ✓ | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No.: X

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: T12G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB080
DATE: 3.29.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 0947 < 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0949 < 4 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0950 < 6 | fine | red brown | sand | | 0.0 | | | | |
| | | | | 0954 < 8 | fine | red | sand | | 0.0 | | | | |
| | | | | 0955 < 10 | fine | red orange | sand | | 0.0 | | | | |
| | | | | 0959 < 15 | fine | red | sand | | 0.0 | | | | |
| | | | | 1000 < 20 | " | " | " | | 0.0 | | | | |
| | | | | < 25 | | | | | | | | | |
| | | | | < 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: OS-SS-060-0406
Sample Location: SB020
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

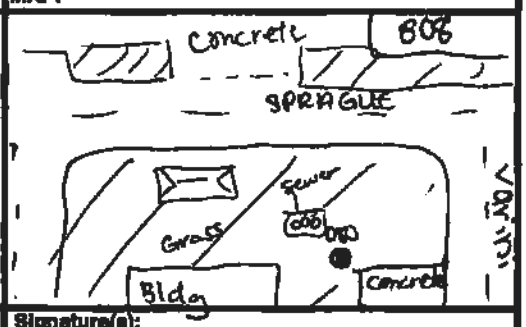
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·29·11 | 0950 | 4-6 | redbrown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB081
DATE: 3-29-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1030 | 0 | | 0-2" white clay | | | | | | |
| | | | | 1033 | 2 | fine | brown sand | | 0.0 | | | | |
| | | | | | 4 | " | " | " | 0.0 | | | | |
| | | | | 1035 | 6 | fine | brown/red sand | | 0.0 | | | | |
| | | | | 1037 | 8 | " | " " " | | 0.0 | | | | |
| | | | | 1040 | 10 | fine | red sand | | 0.0 | | | | |
| | | | | 1042 | 15 | " | " " | | 0.0 | | | | |
| | | | | 1045 | 20 | " | " " | | 0.7 | | | | |
| | | | | | 25 | | | | | | | | |
| | | | | | 30 | | | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-081-0404
Sample Location: SB081
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

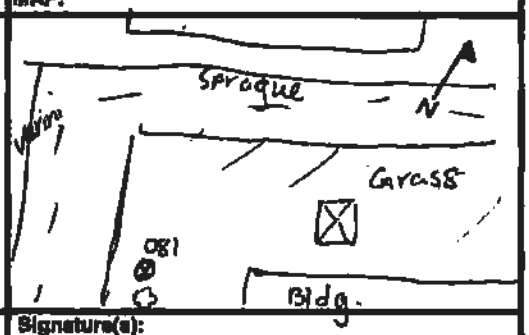
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-29-11 | 1035 | 4-6 | brown/red | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0;0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 ml VOA | | |
| TRPH | 1 8oz. amber jar | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

MS/MSD X

Duplicate ID No.: X

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB082
DATE: 3.29.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 1147 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1149 4 | " | " | " | | 0.0 | | | | |
| | | | | 1150 6 | fine | brown/red | sand | | 0.0 | | | | |
| | | | | 1153 8 | " | " | " " | | 0.0 | | | | |
| | | | | 1155 10 | fine | red | sand | | 0.0 | | | | |
| | | | | 1157 15 | fine | red | sand | | 0.0 | | | | |
| | | | | 1200 20 | fine-med | tan/orange | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-062-0402
Sample Location: SB062
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

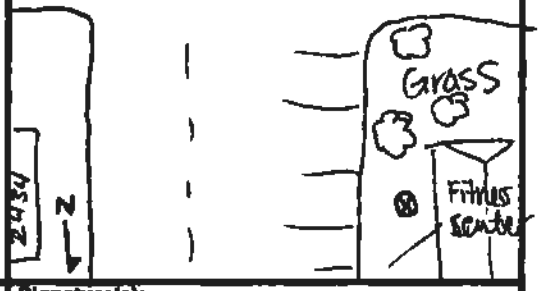
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3.29.11 | 1150 | 4-6' | brown red | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD X

Duplicate ID No: X

Signature(s): M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB083
DATE: 3-29-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 1220 < 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1222 < 4 | " | " | " | | 0.0 | | | | |
| | | | | 1225 < 6 | fine | red brown | sand | | 0.1 | | | | |
| | | | | 1227 < 8 | " | " | " " | | 0.6 | | | | |
| | | | | 1230 < 10 | fine | red orange | sand | | 0.6 | | | | |
| | | | | 1233 < 15 | fine | red | sand | | 0.1 | | | | |
| | | | | 1235 < 20 | fine | red/tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-083-0406 SB083
Sample Location: SB083
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

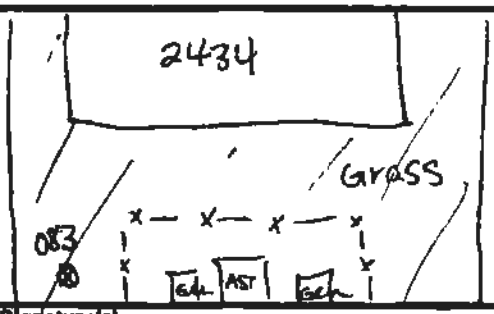
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·29·11 | 1225 | 4-6' | red brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB084
DATE: 3-29-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 1255 2 | fine | brown | sand | | 0.2 | | | | |
| | | | | 1257 4 | " | " | " | | 0.7 | | | | |
| | | | | 1300 6 | fine | red | brown sand | | 1.9 | | | | |
| | | | | 1303 8 | " | " | " " | | 1.6 | | | | |
| | | | | 1308 10 | fine | red | sand | | 1.3 | | | | |
| | | | | 1309 15 | " | " | " | | 0.7 | | | | |
| | | | | 1312 20 | fine-med | tan/red | sand | | 7.2 | | | | |
| | | | | 25 | | | NM | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | GW screening | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-084-0406
Sample Location: 3·29·11
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·29·11 | 1300 | 4-6 | brown red | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 1-9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

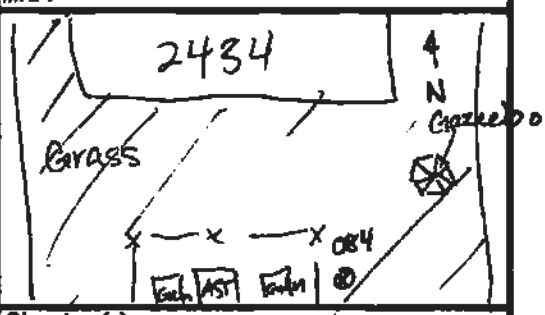
| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | 1 802 amber jar | ✓ | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

Collected GW screening sample here too for PAH, TRPH, Total Pb, EDB, VOCs

05-MW-084 @ 1340

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

Signature(s): MBB

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB085
DATE: 3.29.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 1420 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1423 4 | " | " | " | | 0.0 | | | | |
| | | | | 1425 6 | " | red/brown | " | | 0.0 | X | | | |
| | | | | 1427 8 | " | red orange | sand | | 0.4 | | | | |
| | | | | 1429 10 | " | red | sand | | 0.0 | | | | |
| | | | | 1430 15 | " | " | " | | 0.2 | | | | |
| | | | | 1435 20 | fine-med | tan/red | sand | | 0.6 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No ____ Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-085-0404
Sample Location: 3-29-11
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

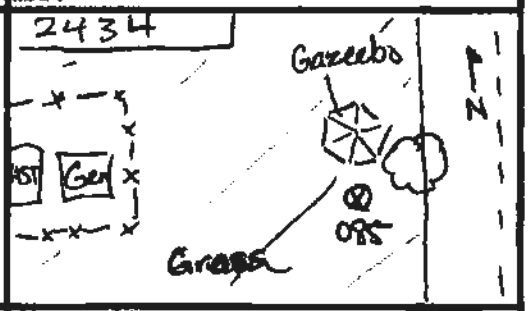
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3-29-11 | 1425 | 4-6' | red/brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB086
DATE: 3-29-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 1440 2 | fine | brown | sand | | 0.5 | | | | |
| | | | | 1443 4 | " | " | " | | 0.3 | | | | |
| | | | | 1445 6 | fine | red/brown | Sand | | 0.8 | | | | |
| | | | | 1448 8 | " | " | " " | | 3.3 | | | | |
| | | | | 1450 10 | fine | red | sand | | 0.3 | | | | |
| | | | | 1453 15 | " | " | " | | 0.2 | | | | |
| | | | | 1455 20 | fine-mid | tan/orange | sand | | 1.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-086-0406
Sample Location: 3.29.11
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

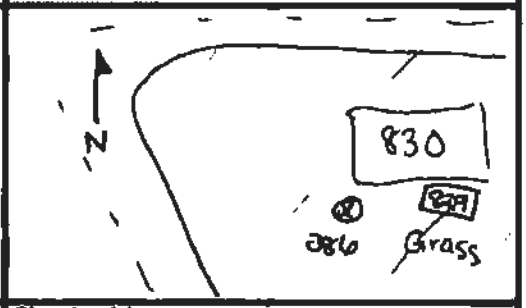
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3.29.11 | 1445 | 4-6 | red brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




Circle if Applicable:
MS/MSD
Duplicate ID No.: 05-SS-086-0406-D

Signature(s): MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB087
DATE: 3.29.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | | | | | | | | | |
| | | | | 1510 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1513 4 | " | " | " | | 0.0 | | | | |
| | | | | 1515 6 | fine | orange brown | sand | | 0.0 | | | | |
| | | | | 1518 8 | " | " | " | " | 0.0 | | | | |
| | | | | 1520 10 | fine | orange red | sand | | 0.0 | | | | |
| | | | | 1525 15 | fine | red | sand | | 0.1 | | | | |
| | | | | 1525 20 | fine-med | tan orang | sand | | 0.3 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: OS-SS-087-0402
Sample Location: SB087
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

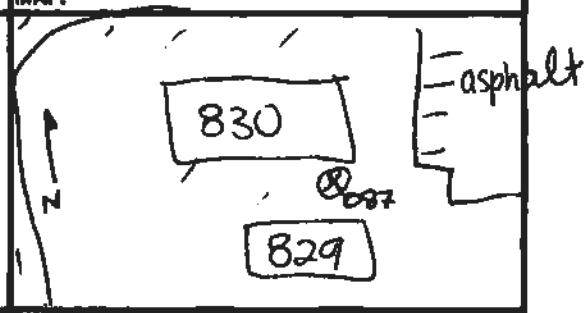
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 3·29·11 | 1515 | 4-6 | ~~red~~ brown orange | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| ND 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB088
DATE: 7-10-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | ~ | 3" | asphalt core | | — | | | | |
| | | | | 1700 | fine | brown | sand w/ shell | | 0.0 | | | | |
| | | | | 1703 2 | " | " | " " " | | 0.0 | | | | |
| | | | | 1705 4 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1707 6 | fine | orange brown | sand | | 0.0 | | | | |
| | | | | 1710 8 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 1713 10 | fine | red | sand | | 0.0 | | | | |
| | | | | 1717 15 | " | " | " | | 0.4 | | | | |
| | | | | 20 | | | | | | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-088-0404
Sample Location: SB088
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

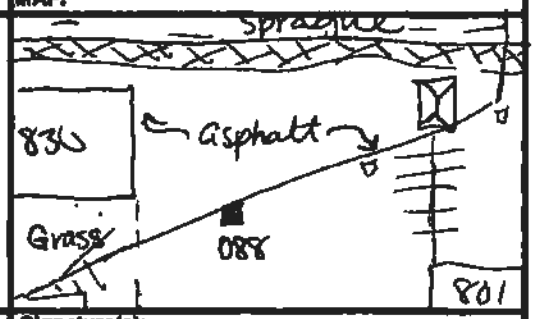
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.10.11 | 1705 | 4-6 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB089
DATE: 7-10-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1631 0 | - ~ 2" asphalt core | | | | - | | | | |
| | | | | 1633 2 | fine brown sand | | | | 1.0 | | | | |
| | | | | 1635 4 | " | " | " | | 0.7 | | | | |
| | | | | 6 | " | " | " | | 1.8 | | | | |
| | | | | 1638 8 | fine brown/orange sand | | | | 2.3 | | | | |
| | | | | 1641 10 | fine red orange sand | | | | 2.4 | | | | |
| | | | | 1645 15 | " | " | " " | | 0.2 | | | | |
| | | | | 1648 20 | fine red sand | | | | 0.4 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-089-0406
Sample Location: SB089
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

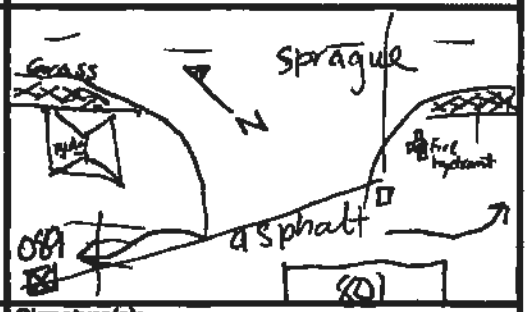
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-10-11 | 1635 | 4-6 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 1.8 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB090
DATE: 4.10.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1612< 0 | ~ 4"/3" | | asphalt | | — | | | | |
| | | | | 2 | fine | brown | sand | | 2.0 | | | | |
| | | | | 1615< 4 | fine | brownorange | sand | | 2.0 | | | | |
| | | | | 1618< 6 | " | " | " " | | 1.4 | | | | |
| | | | | 1620< 8 | fine | orange | red sand | | 1.2 | | | | |
| | | | | 1624< 10 | fine | red | clayey sand | | 2.0 | | | | |
| | | | | 1628< 15 | " | " | " " | | 1.5 | | | | |
| | | | | 1630< 20 | fine-med | | red sand | | 2.9 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-090-0204
Sample Location: SB090
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

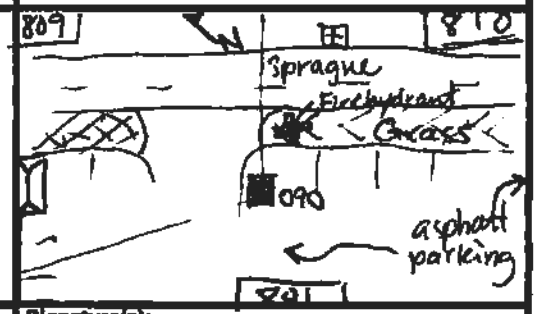
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-10-11 | 1615 | 2-4 | brown/orange | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 2.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB091
DATE: 4-11-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 1252 0 | f | | | | | | | | |
| | | | | 1255 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 4 | " | " | " | | 0.0 | | | | |
| | | | | 1300 6 | fine | brown/orange | sand | | 0.0 | | | | |
| | | | | 1303 8 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 1306 | | | | | | | | | |
| | | | | 1309 10 | fine | red | clayey sand | | 0.4 | | | | |
| | | | | 15 | " | " | " " | | 0.3 | | | | |
| | | | | 1311 20 | fine-med | red/orang | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated repones read.

Drilling Area Background (ppm): .20

Remarks:

Converted to Well: Yes _____ No _____ Well I.D. #: _____

¡ DUP !

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-091-0204
Sample Location: SB091
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

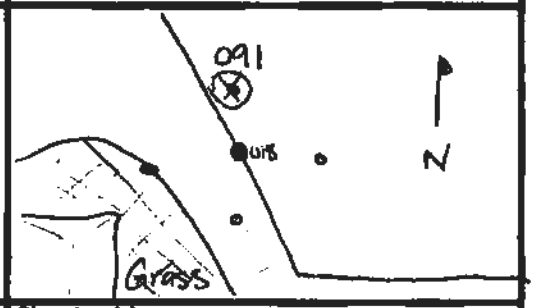
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-11-11 | 1255 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz. amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

MS/MSD

Duplicate ID No.: 05-SS-091-0204-D

Signature(s): MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB092
DATE: 4-1-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | asphalt ~3" | | | | — | | | | |
| | | | | 1318 < 2 | fine | brown | sand | | 0.4 | | | | |
| | | | | 1320 < | " | " | " | | 1.0 | | | | |
| | | | | 1323 < 4 | | | | | | | | | |
| | | | | 1325 < 6 | " | " | " | | 0.1 | | | | |
| | | | | 1327 < 8 | fine | orange brown | sand | | 0.6 | | | | |
| | | | | 1330 < 10 | fine | red/orange | sand | | 1.2 | | | | |
| | | | | 1333 < 15 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 20 | fine-med | red | sand | | 0.5 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: DS-SB092-
Sample Location: SB092
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

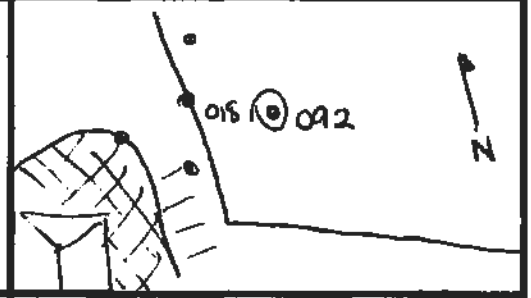
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4.11.11 | 1320 | 2-4 | brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 1.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40ml VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB093
DATE: 4- -11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | asphalt ~ 3" | | | | — | | | | |
| | | | | 1220 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 1223 4 | " | " | " | | 0.0 | | | | |
| | | | | 1225 6 | " | " | " | | 0.0 | | | | |
| | | | | 1227 8 | fine orange/red sand | | | | 0.0 | | | | |
| | | | | 1230 10 | fine red clayey sand | | | | 0.0 | | | | |
| | | | | 1233 15 | " | " | " " " | | 0.0 | | | | |
| | | | | 1236 20 | fine-med red & tan sand | | | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks: _____

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-093-0204
Sample Location: SB093
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: | | | |
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

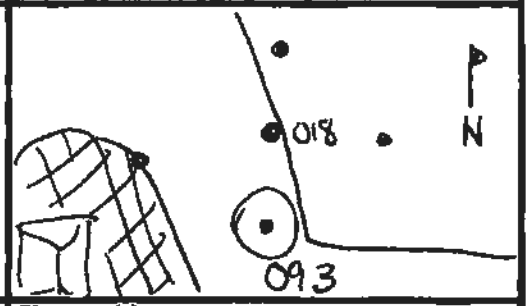
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-11-11 | 1223 | 2-4 | brown | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 2 1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB094
DATE: 4. .11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | ~~GP~~ | | | | | | | | |
| | | | | 1236< 2 | fine | brown | sand | | 0.0 | | | | |
| | | | | 1240< 4 | " | " | " | | 0.0 | | | | |
| | | | | 1243< 6 | " | " | " | | 0.0 | | | | |
| | | | | 1246< 8 | fine | orange/brown | sand | | 0.0 | | | | |
| | | | | 1248< 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 1251< 15 | " | " | " " | | 1.1 | | | | |
| | | | | 1255< 20 | fine-med | red w/tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ boreholes. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-094-0204
Sample Location: SB094
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

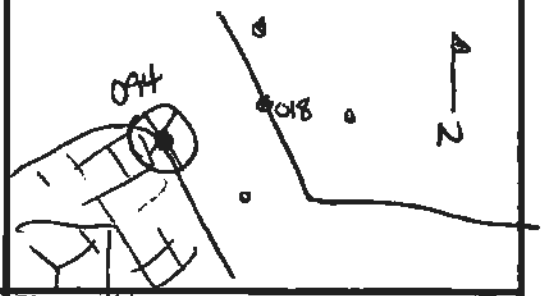
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-11-11 | 1240 | 2-4 | brown | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | | | |
| TRPH | | | |
| PAHs | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB095
DATE: 4.12.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0757 < 0 | concrete core ~4" | | | | — | | | | |
| | | | | 0800 < 2 | fine brown sand | | | | 0.0 | | | | |
| | | | | 0803 < 4 | fine brown/orange sand | | | | 0.0 | | | | |
| | | | | 0806 < 6 | " | " | " " | | 0.0 | | | | |
| | | | | 0809 < 8 | fine orange/red sand | | | | 0.0 | | | | |
| | | | | 10 | fine red clayey sand | | | | 0.0 | | | | |
| | | | | 0811 < 15 | " | " | " " | | 0.0 | | | | |
| | | | | 0813 < 20 | fine-med red & tan sand | | | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-095-0204
Sample Location: SS095
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

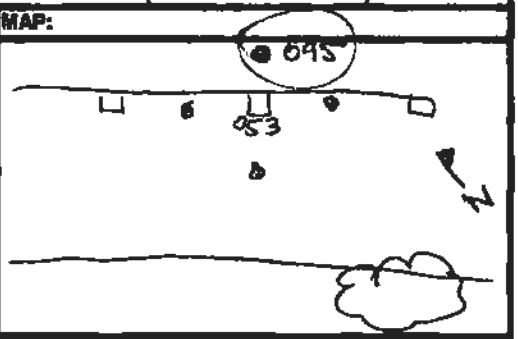
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-12-11 | 0800 | 2-4 | brown/orange | fine sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB0916
DATE: 4·12·11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0833 | 0 | concrete core ~7" | | | — | | | | |
| | | | | 0835 | 2 | fine | brown sand | | 0.1 | | | | |
| | | | | 0838 | 4 | fine | orange/brown sand | | 0.0 | | | | |
| | | | | 0841 | 6 | fine | orange/red sand | | 0.0 | | | | |
| | | | | 0844 | 8 | fine | red clayey sand | | 0.0 | | | | |
| | | | | 0846 | 10 | " | " | " | 0.0 | | | | |
| | | | | 0850 | 15 | fine | red sand | | 0.0 | | | | |
| | | | | | 20 | fine-med | red & tan sand | | 0.7 | | | | |
| | | | | | 25 | | | | | | | | |
| | | | | | 30 | | | | | | | | |
| | | | | | 35 | | | | | | | | |
| | | | | | 40 | | | | | | | | |
| | | | | | 45 | | | | | | | | |
| | | | | | 50 | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-0916-0204
Sample Location: SB0916
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

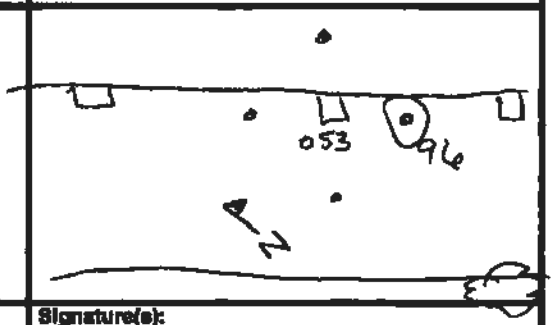
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-12-11 | 0835 | 2-4 | brown/orange | sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40mL VOA | ✓ | |
| TRPH | | | |
| PAHs | 1 8oz amber | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB097
DATE: 4-12-11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0855 0 | concrete/asphalt core 4"/8" | | | | — | | | | |
| | | | | 0900 2 | fine | brown/dark brown | sand | | 0.0 | | | | |
| | | | | 0903 4 | fine | brown | sand | | 0.0 | | | | |
| | | | | 0907 6 | fine | orange brown | sand | | 0.0 | | | | |
| | | | | 0910 8 | fine | red/orange | sand | | 0.0 | | | | |
| | | | | 0913 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 0915 15 | " | " | " " | | 0.0 | | | | |
| | | | | 20 | fine-med | red & tan | sand | | 0.0 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-097-0204
Sample Location: SS097
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

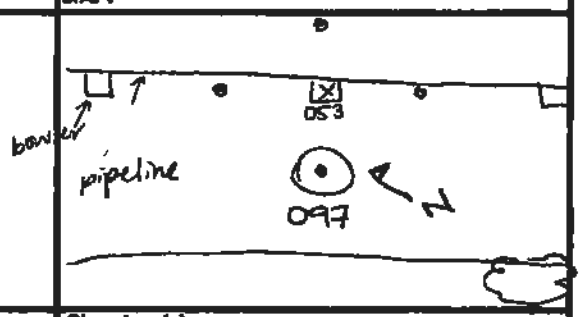
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-12-11 | 0920 | 2-4 | brown | Sand |
| Method: | | | | |
| DPT | | | | |
| Monitor Readings (Range in ppm): | | | | |
| 0 0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz amber jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 5
PROJECT NUMBER: 112G02748
DRILLING COMPANY: ATI
DRILLING RIG: DPT

BORING No.: SB098
DATE: 4.12.11
GEOLOGIST: Melissa Brock/ Scott Maguire
DRILLER: Chad Hall

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 0 | concrete/asphalt core ~7" | | | | – | | | | |
| | | | | 0922 < 2 | fine | brown | sand | | 0.7 | | | | |
| | | | | 0925 < 4 | fine | brown/orange | sand | | 0.4 | | | | |
| | | | | 0929 < 6 | fine | orange/red | sand | | 0.0 | | | | |
| | | | | 0935 < 8 | fine | red | sand | | 0.0 | | | | |
| | | | | 0938 < 10 | fine | red | clayey sand | | 0.0 | | | | |
| | | | | 0941 < 15 | " | " | " " " | | 0.0 | | | | |
| | | | | 0944 < 20 | fine-med. | red/tan | sand | | 0.2 | | | | |
| | | | | 25 | | | | | | | | | |
| | | | | 30 | | | | | | | | | |
| | | | | 35 | | | | | | | | | |
| | | | | 40 | | | | | | | | | |
| | | | | 45 | | | | | | | | | |
| | | | | 50 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0.0

Remarks:

Converted to Well: Yes _____ No _____ Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 5
Project No.: 112G02748

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

Sample ID No.: 05-SS-098-0204
Sample Location: SB098
Sampled By: Melissa Brock
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

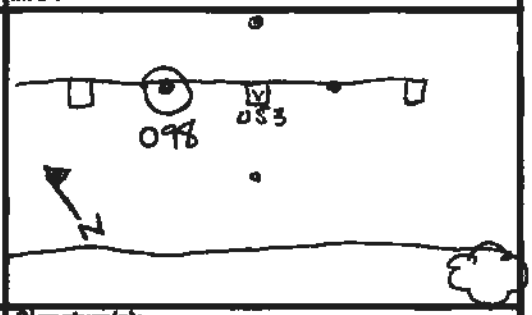
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 4-12-11 | 0925 | 2-4 | brown/orange | Sand |
| Method: DPT | | | | |
| Monitor Readings (Range in ppm): 0.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| BTEX and MTBE | 3 40 mL VOA | ✓ | |
| TRPH | | | |
| PAHs | >1 8oz. amberjar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| X | X |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: ~~SB053~~ 099 D
DATE: 9·30·11
GEOLOGIST: M. Brock
DRILLER: C. Burger

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Concrete | | | | FID / Corr. / Net | | | | |
| | | | | 0-2 | gray/brown saturated sand | | | | >1700/300/(400) | | | | |
| | | | | | petro like odor | | | | | | | | |
| | | | | 2-4 | | | | | | | | | |
| | | | | 4-6 | | | | | | | | | |
| | | | | 6-8 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~053D~~ 099-0002
Sample Location: SB05-3D
Sampled By: M Brock
C.O.C. No.: 1917

[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: 7/30/11<br>Time: 0920<br>Method: Grab<br>Monitor Reading (ppm): 1400 | 0-2 | gray/brown | sand saturated >1700/300 |

**COMPOSITE SAMPLE DATA:**

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

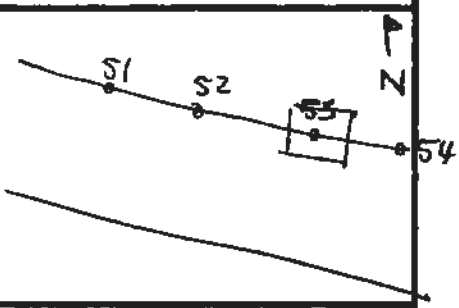
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | 1 (Eq) | |
| ~~VOCs~~ | ~~2-40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

this boring is being re-sampled since the last event in April.

**MAP:**




**Circle if Applicable:**

MS/MSD | Duplicate ID No.:

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB099100
DATE: 7-30-11
GEOLOGIST: M. Brock
DRILLER: C. Burger

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | concrete | | | | | | | | |
| | | | | 0-2 | brown sand (fine/med) | | | | 9.1 | | | | |
| | | | | 2-4 | brown sand (fine/med) | | | | 2.2 | | | | |
| | | | | 4-6 | red brown sand (fine/med) | | | | 5.6 | | | | |
| | | | | 6-8 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~099~~ 100-0002
Sample Location: SB~~099~~ 100
Sampled By: MB
C.O.C. No.: 1917

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11 | 0-2 | Brown | Sand |
| Time: 0905 | | | |
| Method: Grab | | | |
| Monitor Reading (ppm): 0.1 | | | |

**COMPOSITE SAMPLE DATA:**

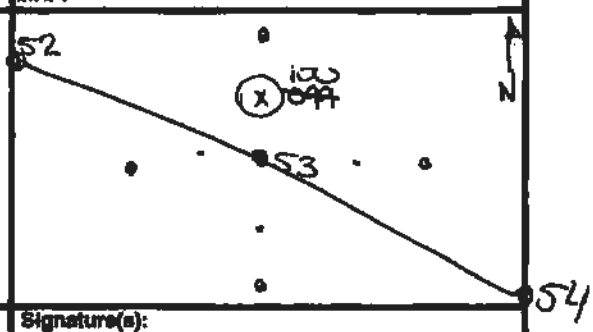
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | 05-SS-100-0002D |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~099~~ 100-0204
Sample Location: SB099(2)
Sampled By: MB
C.O.C. No.: 1917

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 910<br>Method: grab<br>Monitor Reading (ppm): 2.2 | 02-04' | Brown | sand |

**COMPOSITE SAMPLE DATA:**

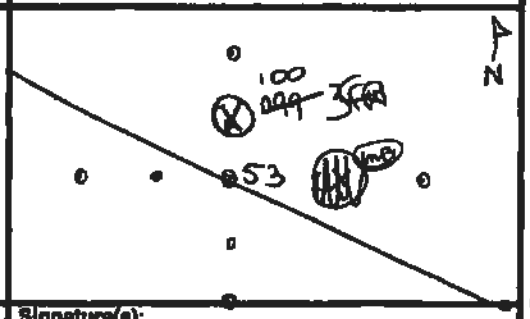
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | 8 oz. glass jar | no pres. | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3-40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MB

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~099~~ 100-0404
Sample Location: SB099100
Sampled By: MB
C.O.C. No.: 1917

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 0915<br>Method: Grab<br>Monitor Reading (ppm): 5.18 | 4 - 6' | Red/brown | sand |

**COMPOSITE SAMPLE DATA:**

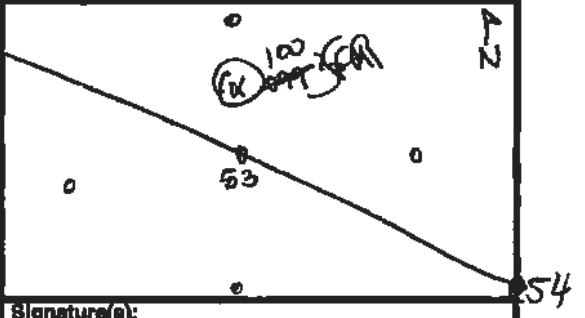
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3-40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB100
DATE: 7.30.11
GEOLOGIST: M. Brock
DRILLER: C. Burrow

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | concrete | | | | | | | | |
| | | | | 0-2 | red | brown | med/fine sand | | 15.7 | 16.9 | 1.2 | 15.7 | |
| | | | | | | | | | 69.2 | 16.2 | 63.0 | | |
| | | | | 2-4 | red | brown | med/fine sand | | 63.0 | | | | |
| | | | | 4-6 | | brown | med/fine sand | | 7.9 | | | | |
| | | | | ~~6-8~~ | | | | | | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~100~~ 101 - 0002
Sample Location: SB-~~103~~ 101
Sampled By: MB
C.O.C. No.: 1917

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

**GRAB SAMPLE DATA:**

| Date: 7/30/11 | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: 830 | 0-2' | red brown | sand |
| Method: grab | | | |
| Monitor Reading (ppm): 15.4 | | | |

**COMPOSITE SAMPLE DATA:**

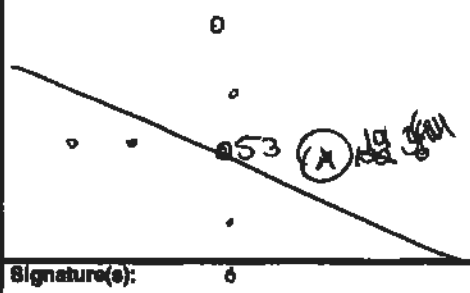
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3 40 mL vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s): 6

MBCole

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~100~~ 101-0204
Sample Location: ~~SB103~~ 101
Sampled By: MB
C.O.C. No.: 1917

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11 | 2-4 | red brown | Sand 69.2/6.2 |
| Time: 835 | | | |
| Method: grab | | | |
| Monitor Reading (ppm): 63.0 | | | |

**COMPOSITE SAMPLE DATA:**

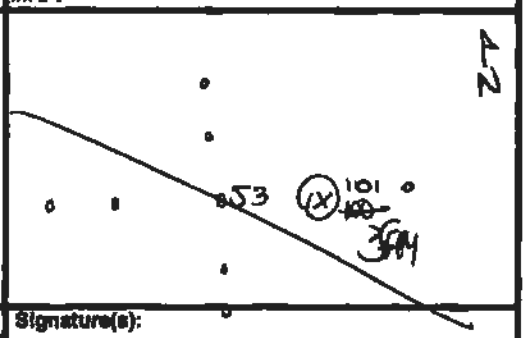
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~100~~ 101-0206
Sample Location: SB109101
Sampled By: MB
C.O.C. No.: 1917

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 840<br>Method: gmb<br>Monitor Reading (ppm): 7.9 | 4-6' | Brown | Sand |

**COMPOSITE SAMPLE DATA:**

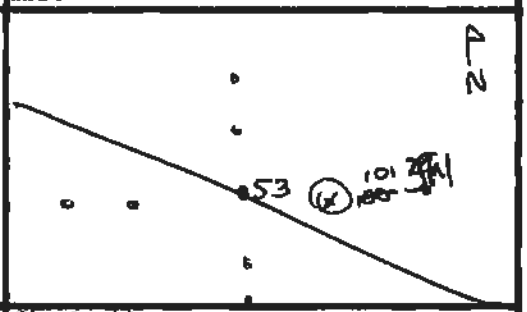
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** M Brooke

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB102
DATE: 7-30-11
GEOLOGIST: M. Brock
DRILLER: C. Burgey

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Concrete | | | | Read/Cor./Net | | | | |
| | | | | 0-2 | red brown sand (med. fine) | | | | 36.9/4.0/32.9 | | | | |
| | | | | 2-4 | red saturated med./fine sand | | | | 8.3 | | | | |
| | | | | 4-6 | MET REFUSA | | | | — | | | | |
| | | | | ~~6-8~~ | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0.0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~101~~ 102-0002
Sample Location: 3B101/102
Sampled By: MJB
C.O.C. No.: 1917

- [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: 7/30/11<br>Time: 1845<br>Method: grab<br>Monitor Reading (ppm): 32.9 | 0 - 2' | red brown | sand 36.9/4.0 |

**COMPOSITE SAMPLE DATA:**

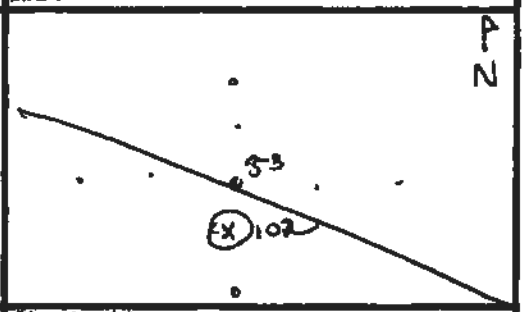
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3-40 ml. vial~~ | ~~DI water~~ | | |

**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: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-102-0204
Sample Location: SB102
Sampled By: MB
C.O.C. No.: 1917

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 850<br>Method: grab<br>Monitor Reading (ppm): 8.3 | 02-04 | red | sand saturated |

**COMPOSITE SAMPLE DATA:**

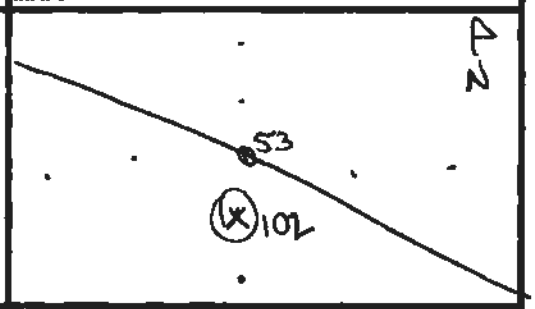
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | | |
| TRPH | 8 oz. glass jar | no pres. | | |
| VOCs | 3 40 ml. vial | DI water | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~101~~ 102-0406
Sample Location: SB~~101~~ 102
Sampled By: MB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | Refusal | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

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

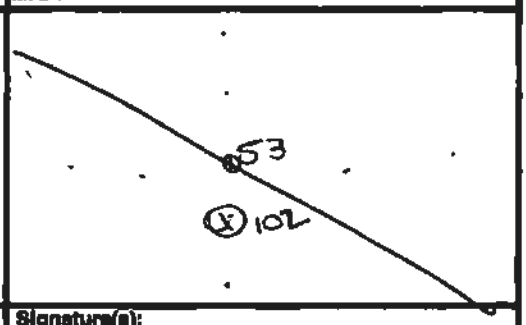
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | | |
| TRPH | 8 oz. glass jar | no pres. | | |
| VOCs | 3 40 ml. vial | DI water | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**OBSERVATIONS / NOTES:**

DUP
MS/MSD

**MAP:**




**Circle If Applicable:**

MS/MSD

Duplicate ID No.: 05-SS-~~101~~ 102-0406D

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB102
DATE: 7/30/17
GEOLOGIST: M. Brock
DRILLER: C. Burger

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Concrete | | | | | | | | |
| | | | | 0-2 | brown med./fine sand | | | | 13.0 | 14.5 | 1.5 | 1.5 | 13.0 |
| | | | | 2-4 | red brown med fine sand | | | | 1.7 | | | | |
| | | | | 4-6 | red brown med/fine sand | | | | 1.2 | | | | |
| | | | | 6-8 | | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~102~~ 103-0002
Sample Location: SB102 103
Sampled By: MB
C.O.C. No.: 1917

[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: 7/30/11<br>Time: 935<br>Method: grab<br>Monitor Reading (ppm): 13.0 | 0-2' | Brown | sand |

**COMPOSITE SAMPLE DATA:**

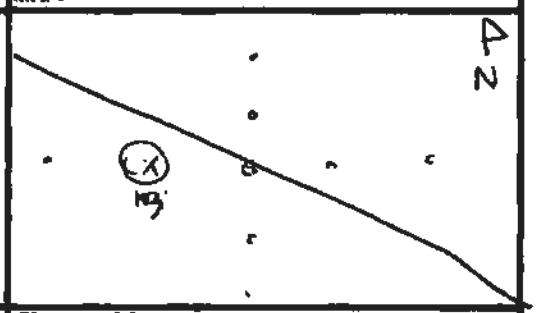
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~102~~ 103-0204
Sample Location: SB~~102~~103
Sampled By: MB
C.O.C. No.: 817

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 930<br>Method: grab<br>Monitor Reading (ppm): 1.7 | 2-4 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

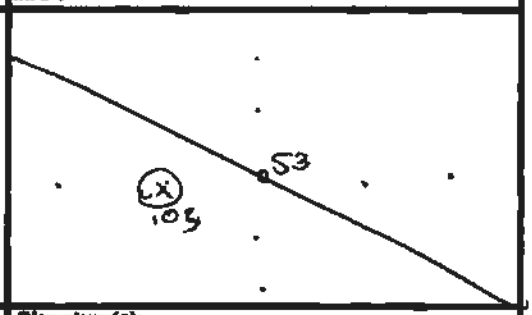
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|

**Signature(s):** MB cork

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Sauffley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~102~~ 103-0406
Sample Location: SB102 103
Sampled By: MJB
C.O.C. No.: 918

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 935<br>Method: Grab<br>Monitor Reading (ppm): 1.2 | 04-06 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

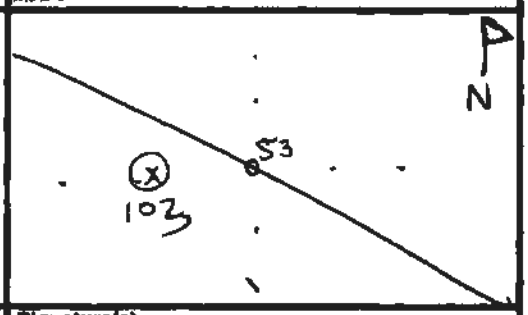
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| TRPH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MJBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB1084
DATE: 7-30-11
GEOLOGIST: M. Brock
DRILLER: C. Burgess

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | grass | | | | | | | | |
| | | | | 0-2 | red brown med/fine sand | | | | 3.9 | | | | |
| | | | | 2-4 | red brown med/fine sand | | | | 21.6 | 24.9 | 3.3 | 21.6 | |
| | | | | 4-6 | brown med/fine sand | | | | 0.9 | | | | |
| | | | | 6-8 | brown med/fine sand | | | | 4.8 | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated raponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~103~~ 104 - 0002
Sample Location: SB103/104
Sampled By: MB
C.O.C. No.: 1498

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 1/30/11<br>Time: 1010<br>Method: grab<br>Monitor Reading (ppm): 3.9 | 0-2' | red brown | sand |

**COMPOSITE SAMPLE DATA:**

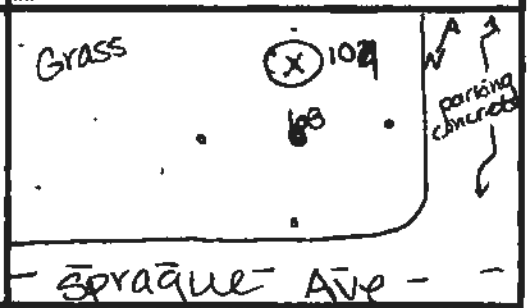
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~TRPH~~ PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3-40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: AS-SS-~~103~~ 104-0204
Sample Location: SB103104
Sampled By: MB
C.O.C. No.: 1918

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 1/20/11<br>Time: 1015<br>Method: auger<br>Monitor Reading (ppm): 21.6 | 2-4 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

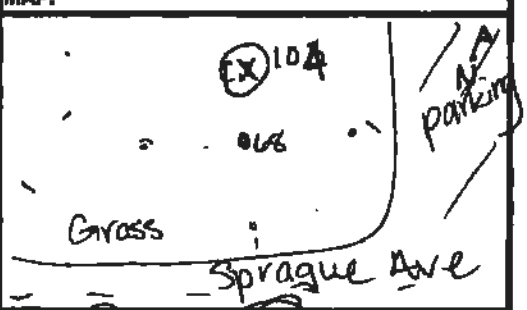
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~TRPH~~ PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**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: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~103~~ 104 0400
Sample Location: SB~~103~~104
Sampled By: MB
C.O.C. No.: 1918

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 1020<br>Method: grab<br>Monitor Reading (ppm): 0.9 | 4-6 | Brown | sand |

**COMPOSITE SAMPLE DATA:**

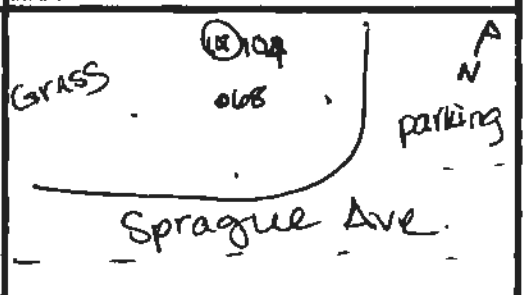
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| ~~PAH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | ✓ | |
| ~~TRPH~~ PAH | 8 oz. glass jar | no pres. | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**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: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~103~~ 104-0608
Sample Location: SB103/104
Sampled By: MB
C.O.C. No.: 1918

[] Surface Soil
[X] 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: 11/30/11<br>Time: 1025<br>Method: DPT<br>Monitor Reading (ppm): 4.8 | 6-8 | Brown | Sand |

**COMPOSITE SAMPLE DATA:**

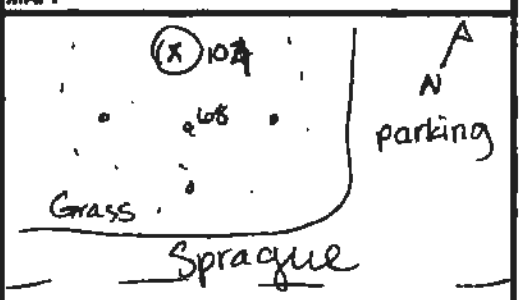
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBcook

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB104-5
DATE: 7.30.11
GEOLOGIST: M. Brock
DRILLER: C. Burgh

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Drilling BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | asphalt/concrete | | | | | | | | |
| | | | | 0-2 | red/brown med./fine sand | | | | 1.9 | | | | |
| | | | | 2-4 | red brown med./fine sand | | | | 0.4 | | | | |
| | | | | 4-6 | red brown sand med./fine | | | | 0.0 | | | | |
| | | | | 6-8 | red brown clayey sand | | | | 4.4 | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~104~~ 105-0002
Sample Location: SB~~104~~ 105
Sampled By: MB
C.O.C. No.: 1918

☒ 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: 7/30/11<br>Time: 1030<br>Method: Grab<br>Monitor Reading (ppm): 1.9 | 0-2' | red brown | Sand |

**COMPOSITE SAMPLE DATA:**

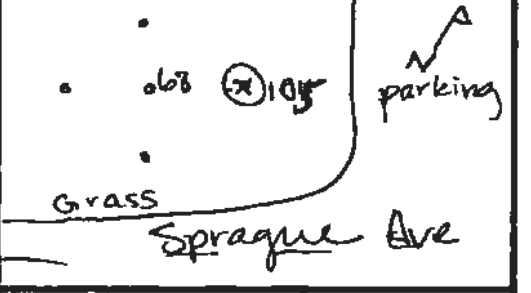
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~104~~ 105-0204
Sample Location: SB104/105
Sampled By: MB
C.O.C. No.: 1918

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 11/30/11<br>Time: 1035<br>Method: GRAB<br>Monitor Reading (ppm): 0.4 | 2 - 4 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

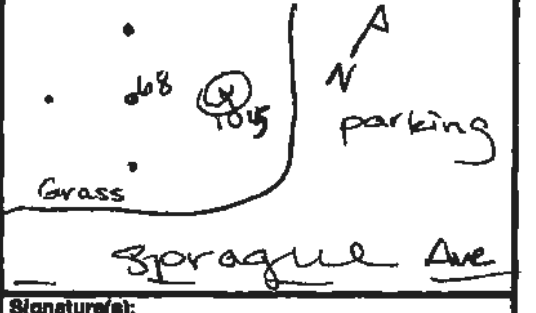
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** M Brook

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~104~~ 105-0401D
Sample Location: SB-~~104~~ 105
Sampled By: MB
C.O.C. No.: 1918

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/20/11<br>Time: 1040<br>Method: grab<br>Monitor Reading (ppm): 0.0 | 4-6 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

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

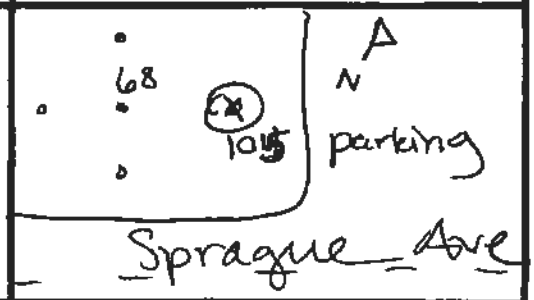
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | 3 40 ml. vial | DI water | | |

**OBSERVATIONS / NOTES:**

DUP

**MAP:**




**Circle if Applicable:**

MS/MSD

Duplicate ID No.: 05-SS-104-0401D

Signature(s): MB Cook

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SB-~~104~~ 105-0008
Sample Location: ~~SB104~~ 105
Sampled By: MMP
C.O.C. No.: 1918

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 11/30/11 | 6-8 | red brown | clayey sand |
| Time: 1045 | | | |
| Method: grab | | | |
| Monitor Reading (ppm): 4.4 | | | |

**COMPOSITE SAMPLE DATA:**

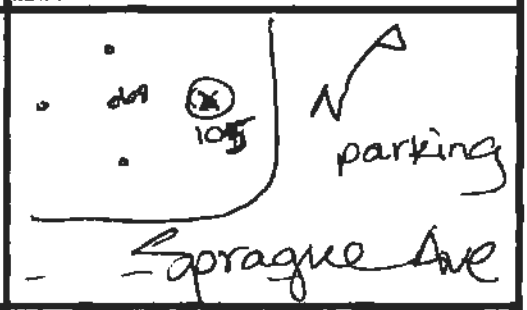
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBcorb

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB106
DATE: 7-20-11
GEOLOGIST: M. Brock
DRILLER: C. Burger

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | asphalt | | | | | | | | |
| | | | | 0-2 | red brown med/fine sand | | | | 4.0 | | | | |
| | | | | 2-4 | brown med/fine sand | | | | 2.5 | | | | |
| | | | | 4-6 | tan/red med/fine sand | | | | 0.6 | | | | |
| | | | | 6-8 | red clayey sand dense. | | | | 0.5 | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Drilling Area Background (ppm): 0

Remarks:

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~105~~ 106-0002
Sample Location: SB105 106
Sampled By: MJB
C.O.C. No.: 1918

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

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

**GRAB SAMPLE DATA:**

| Date: 11/30/11<br>Time: 1050<br>Method: grab<br>Monitor Reading (ppm): 4.0 | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| | 0-2' | red brown | sand |

**COMPOSITE SAMPLE DATA:**

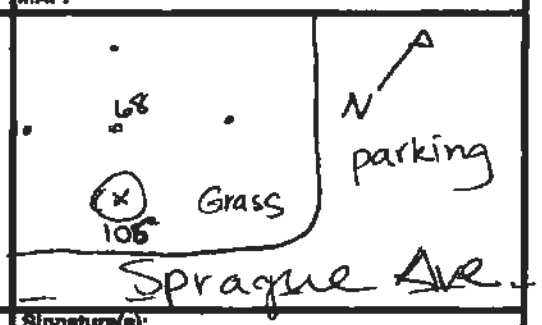
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | | | | |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MJB Cook

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-105-0204
Sample Location: SB105-106
Sampled By: RAB
C.O.C. No.: 1918

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 1055<br>Method: grab<br>Monitor Reading (ppm): 2.5 | 2-4 | Brown | sand |

**COMPOSITE SAMPLE DATA:**

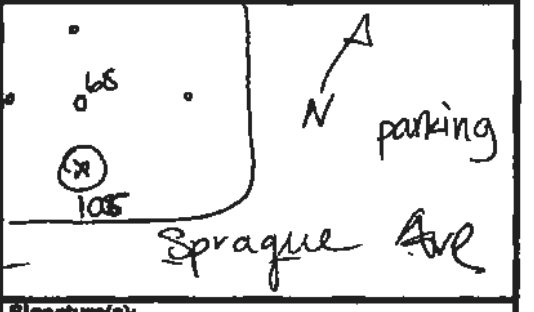
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** M Brown

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~105~~ 106-0406
Sample Location: SB105/106
Sampled By: MB
C.O.C. No.: 1915

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 1100<br>Method: grab<br>Monitor Reading (ppm): 0.0 | 4-6 | tan/red | ~~fine~~ sand |

**COMPOSITE SAMPLE DATA:**

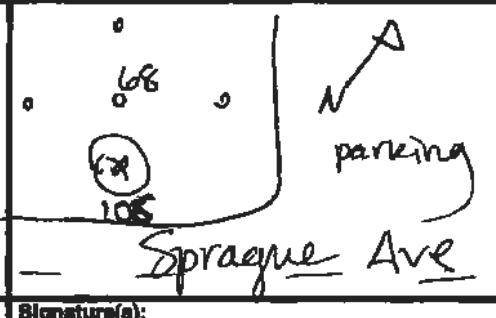
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-106-0608
Sample Location: SB105106
Sampled By: MB
C.O.C. No.: 1919

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

**GRAB SAMPLE DATA:**

| Date: 7/30/11 | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: 1105 | 6-8 | red | clayey sand |
| Method: grab | | | |
| Monitor Reading (ppm): 0.5 | | | |

**COMPOSITE SAMPLE DATA:**

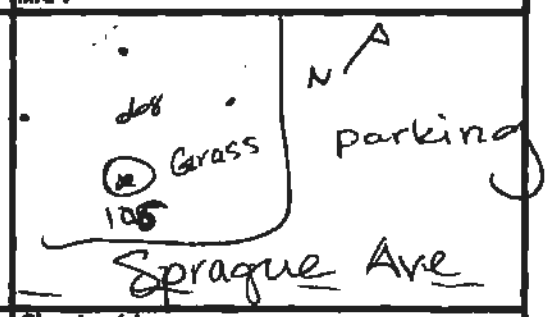
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB1067
DATE: 7.30.11
GEOLOGIST: M. Brock
DRILLER: C Burger

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS * | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | grass | | | | | | | | |
| | | | | 0-2 | red/brown med./fine sand | | | | 0.0 | | | | |
| | | | | 2-4 | red brown sand med./fine | | | | 0.3 | | | | |
| | | | | 4-6 | red brown med./fine sand | | | | 0.0 | | | | |
| | | | | 6-8 | red brown med/fine sand | | | | 0.0 | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~106~~ 107-0002
Sample Location: SB~~106~~ 107
Sampled By: MB
C.O.C. No.: 19 H

[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: 11/30/11<br>Time: 1110<br>Method: Grab<br>Monitor Reading (ppm): 0.0 | 0-2 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

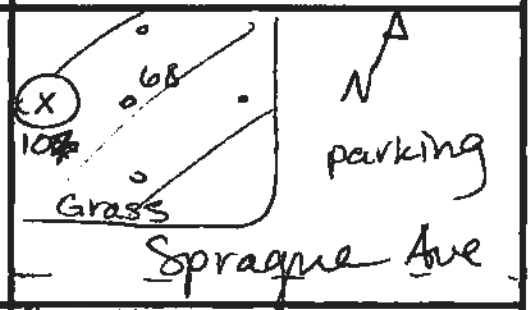
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRRH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MB

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~101~~ 107-0204
Sample Location: SB-107
Sampled By: MMB
C.O.C. No.: 119

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 1115<br>Method: grab<br>Monitor Reading (ppm): 0.3 | 2-4 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

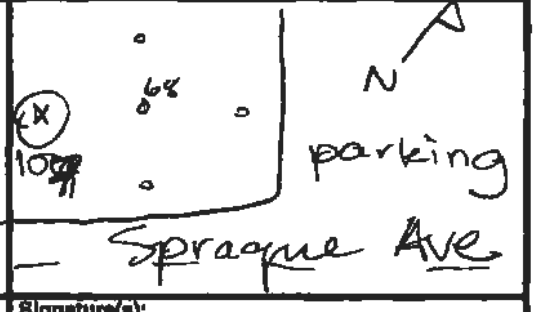
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** M Brock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~180~~ 107-0406
Sample Location: SB ~~180~~ 107
Sampled By: MMD
C.O.C. No.: 1919

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 1120<br>Method: grab<br>Monitor Reading (ppm): 0.0 | 4-6 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

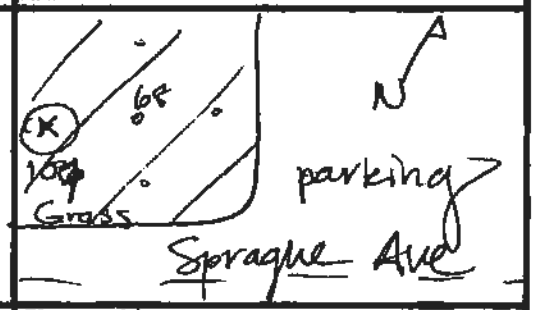
| | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Date: | | | | |
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | 8 oz. glass jar | no pres. | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** YMB corle

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~106~~ 107-0608
Sample Location: SB~~106~~ 107
Sampled By: MJB
C.O.C. No.: 1919

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 1125<br>Method: grab<br>Monitor Reading (ppm): 0.0 | 6 - 8 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

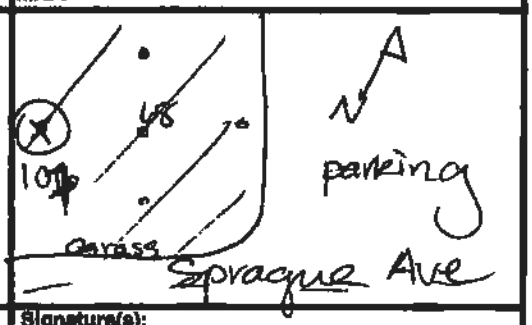
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MJBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB107
DATE: 7.30.11
GEOLOGIST: M. Brock
DRILLER: C. Burget

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | asphalt | | | | | | | | |
| | | | | 0-2 | red brown med. fine sand | | | | 0.0 | | | | |
| | | | | 2-4 | red brown med. fine sand | | | | 0.0 | | | | |
| | | | | 4-6 | tan brown sand | | | | 1.6 | | | | |
| | | | | 6-8 | red brown sand med-fine | | | | 2.1 | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~107~~ 108-0002
Sample Location: ~~SB-108~~ 108
Sampled By: MMB
C.O.C. No.: 1919

- [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: 7/30/11<br>Time: 1130<br>Method: grab<br>Monitor Reading (ppm): 0.0 | 0-2 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

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

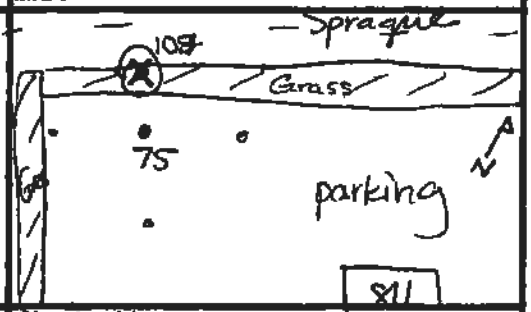
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| TRPH | 8 oz. glass jar | no pres. | | |
| VOCs | 3 40 ml. vial | DI water | | |

**OBSERVATIONS / NOTES:**

DUP

**MAP:**




**Circle if Applicable:**

MS/MSD

Duplicate ID No.: 05-SS-107-0002D

**Signature(s):** MMBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~107~~ 108-0204
Sample Location: SB107/108
Sampled By: MB
C.O.C. No.: 1919

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 1150<br>Method: grab<br>Monitor Reading (ppm): 1.6 | 2-4 | red brown | sand |

**COMPOSITE SAMPLE DATA:**

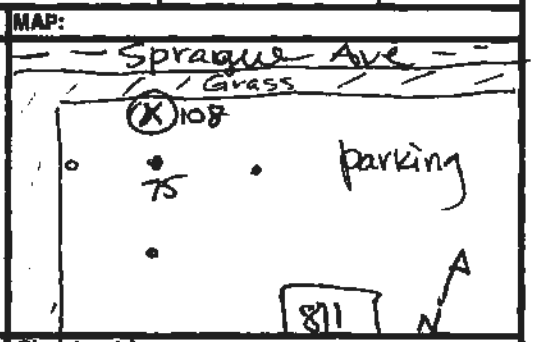
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~107~~ 108-0406
Sample Location: SB107-05
Sampled By: MB
C.O.C. No.: 999

[] Surface Soil
[X] 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: 7/30/11<br>Time: 1155<br>Method: grab<br>Monitor Reading (ppm): 0.0 | 4-6 | Tan 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 |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |
| | | | | |
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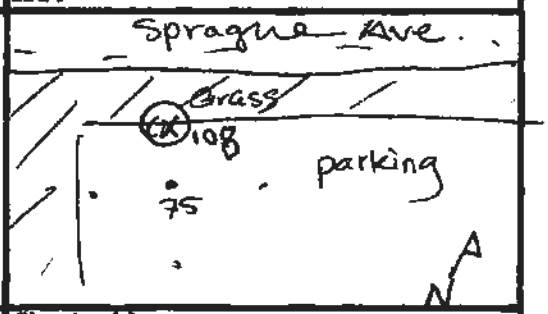
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02749

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

Sample ID No.: 05-SS-~~107~~ 108-0608
Sample Location: SB107/108
Sampled By: MB
C.O.C. No.: 1919

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7/30/11<br>Time: 1200<br>Method: grab<br>Monitor Reading (ppm): 2.1 | 6-8 | red brown | sand moist |

**COMPOSITE SAMPLE DATA:**

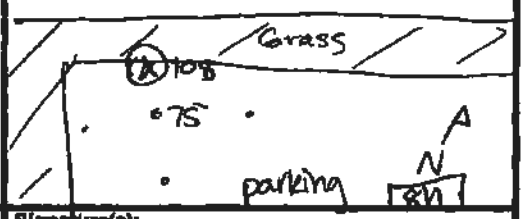
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MMBrock

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB1089
DATE: 7-30-11
GEOLOGIST: M. Brock
DRILLER: C. Burger

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | asphalt | | | | | | | | |
| | | | | 0-2 | tan brown med/ | | | | 0.0 | | | | |
| | | | | | fine sand | | | | | | | | |
| | | | | 2-4 | red brown med/fine | | | | 1.1 | | | | |
| | | | | | sand | | | | | | | | |
| | | | | 4-6 | tan red med/fine | | | | 0.0 | | | | |
| | | | | | sand | | | | | | | | |
| | | | | 6-8 | red dense | | | | 0.1 | | | | |
| | | | | | med/fine Sand | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SB-109-0002
Sample Location: SB109 109
Sampled By: MAB
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: 7·30·11<br>Time: 1205<br>Method: DPT<br>Monitor Reading (ppm): 0.0 | 0-2 | tan brown | sand |

**COMPOSITE SAMPLE DATA:**

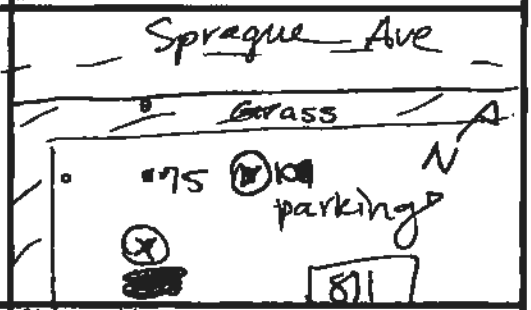
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**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: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~108~~ 109-0204
Sample Location: SB-~~108~~ 109
Sampled By: MJB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7-30-11<br>Time: 1210<br>Method: DPT<br>Monitor Reading (ppm): 1.1 | 2-4 | red 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 |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3-40 ml vial~~ | ~~DI water~~ | | |
| | | | | |
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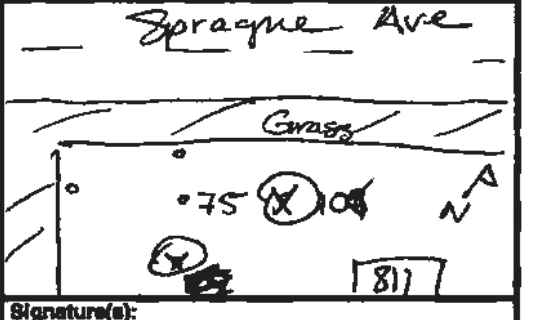
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MJBrook

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~106~~ 109-0406
Sample Location: ~~SP106~~ SP109
Sampled By: MB
C.O.C. No.:

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

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

**GRAB SAMPLE DATA:**

| Date: 7-30-11 | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: 1215 | 4-6 | tan/red | sand |
| Method: DPT | | | |
| Monitor Reading (ppm): 0.0 | | | |

**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 |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |
| | | | | |
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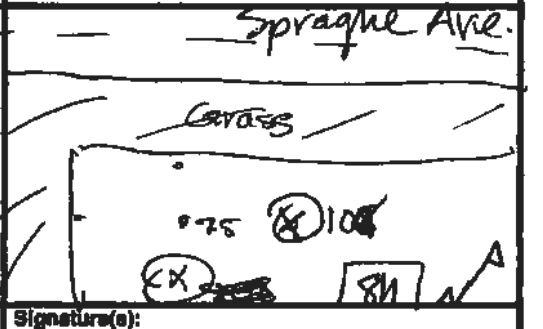
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBCorr

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-109-0608
Sample Location: SB-08/09
Sampled By: MB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7-30-11 | 6-8 | red | dense sand |
| Time: 1220 | | | |
| Method: | | | |
| Monitor Reading (ppm): 0.1 | | | |

**COMPOSITE SAMPLE DATA:**

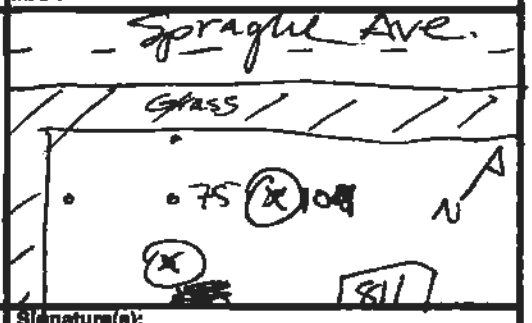
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | | | | |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MB cont

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB109 10
DATE: 7.30.11
GEOLOGIST: M. Brock
DRILLER: C. Burger

| Sample No. and Type or RQD | Depth (FL) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/FL) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Driller BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | asphalt | | | | | | | | |
| | | | | 0-2 | tan/dark brown | | | | 0.2 | | | | |
| | | | | | med/fine sand | | | | | | | | |
| | | | | 2-4 | red brown med./ | | | | 0.0 | | | | |
| | | | | | fine sand | | | | | | | | |
| | | | | 4-6 | tan/red med-fine | | | | 1.4 | | | | |
| | | | | | sand | | | | | | | | |
| | | | | 6-8 | red dense moist | | | | 0.2 | | | | |
| | | | | | clayey sand | | | | | | | | |

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No Y Well I.D. #: ____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

Sample ID No.: 05-SS-~~109~~ 110-0002
Sample Location: ~~SB109~~ 110
Sampled By: MB
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: 7.30.11<br>Time: 1225<br>Method: DPT<br>Monitor Reading (ppm): 0.2 | 0-2 | tan-dark 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 |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | | |
| TRPH | 8 oz. glass jar | no pres. | | |
| VOCs | 3 40 ml. vial | DI water | | |
| | | | | |
| | | | | |
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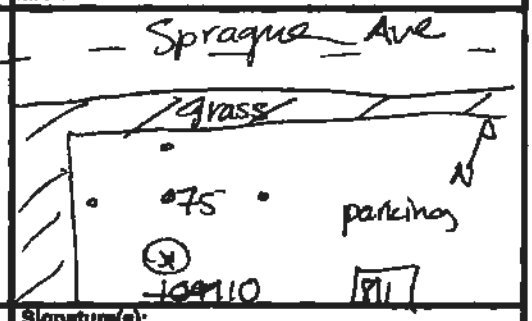
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MPCook

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~109~~ 110-0204
Sample Location: SB-~~09~~ 110
Sampled By: VMB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7·30·11<br>Time: 1230<br>Method: DPT<br>Monitor Reading (ppm): 0.0 | 2-4 | red 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 |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3-40 ml. vial~~ | ~~DI water~~ | | |
| | | | | |
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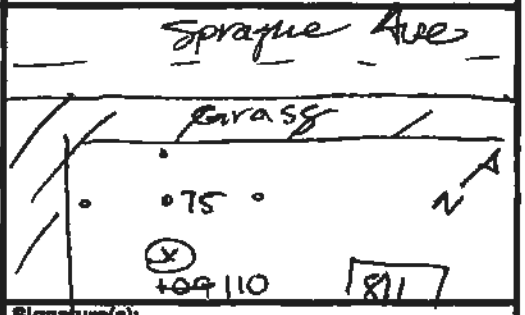
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** VMBrown

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~109~~ 110-0406
Sample Location: SB~~109~~ 110
Sampled By: MB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7-30-11 | 4-6 | tan/red | sand |
| Time: 1235 | | | |
| Method: | | | |
| Monitor Reading (ppm): 1.4 | | | |

**COMPOSITE SAMPLE DATA:**

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

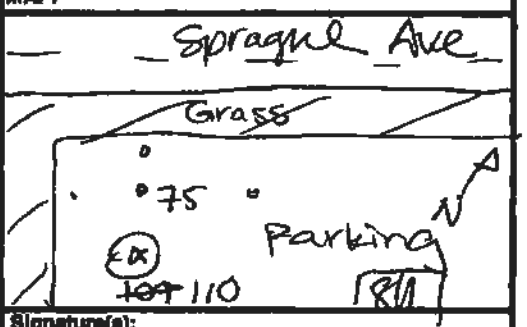
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| TRPH | 8 oz. glass jar | no pres. | X | |
| VOCs | 3 40 ml. vial | DI water | X | |

**OBSERVATIONS / NOTES:**

yes → ~~DUP~~

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| yes → ~~05-SS-109-0406D~~ | 110 |

**Signature(s):** MBrunk

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~109~~ 110-01~~02~~
Sample Location: SB~~109~~ 110
Sampled By: MJB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7.30.11<br>Time: ~~1235~~ 1240<br>Method:<br>Monitor Reading (ppm): 0.2 | 6-8 | red | dense moist clayey 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 |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | | |
| ~~TPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| ~~VOCs~~ | ~~3 40 ml. vial~~ | ~~DI water~~ | | |
| | | | | |
| | | | | |
| | | | | |
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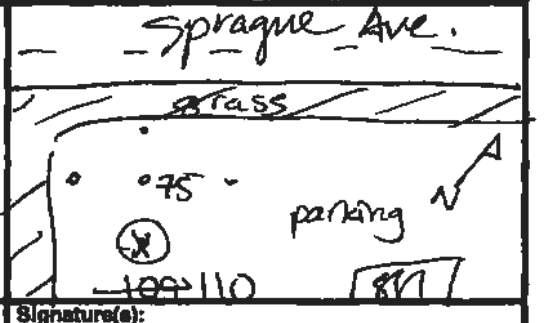
| | | | | |
| | | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MJB

Tetra Tech NUS, Inc.

# BORING LOG

Page ___ of ___

PROJECT NAME: Saufley Field Site 05
PROJECT NUMBER: 112G02748
DRILLING COMPANY: Preferred
DRILLING RIG: Track mounted geo probe

BORING No.: SB1101
DATE: 7.30.11
GEOLOGIST: M. Brock
DRILLER: C. Burger

| Sample No. and Type or RQD | Depth (Ft.) or Run No. | Blows / 6" or RQD (%) | Sample Recovery / Sample Length | Lithology Change (Depth/Ft.) or Screened Interval | MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness | Color | Material Classification | USCS* | Remarks | PID/FID Reading (ppm): Sample | Sampler BZ | Borehole** | Drifter BZ** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | asphalt | | | | | | | | |
| | | | | 0-2 | brown med./fine sand | | | | 0.0 | | | | |
| | | | | 2-4 | red w/ some blk. med./fine sand | | | | 2.1 | | | | |
| | | | | 4-6 | red brown med/ fine sand | | | | 0.0 | | | | |
| | | | | 6-8 | red dense moist sand | | | | 0.0 | | | | |

* When rock coring, enter rock brokenness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks: _____

Drilling Area Background (ppm): 0

Converted to Well: Yes ____ No X Well I.D. #: _____

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sawfley Field Site 05
Project No.: 112GD2748

Sample ID No.: 05-SS-116-0002
Sample Location: SB40711
Sampled By: MB
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: 7.30.11<br>Time: 1245<br>Method: DPT<br>Monitor Reading (ppm): 0.0 | 0-2 | brown | sand |

**COMPOSITE SAMPLE DATA:**

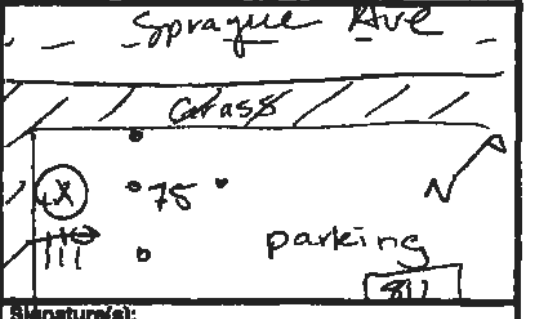
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| Method: | | | | |
| Monitor Readings (Range in ppm): | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH ~~SPLP~~ | 1 8oz glass jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~110~~ 111-0204
Sample Location: SB110111
Sampled By: TMB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7-30-11 | 2-4 | red w/ some blk. | Sand |
| Time: 1250 | | | |
| Method: DPT | | | |
| Monitor Reading (ppm): BKG | | | |

**COMPOSITE SAMPLE DATA:**

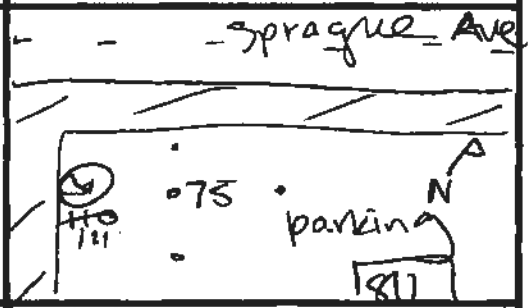
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | | | | |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| VOCs | 3 40 ml. vial | DI water | | |

**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: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~110~~ 111-0406
Sample Location: SB~~110~~111
Sampled By: MB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 7·30·11 | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: 1255 | 4-6 | red/brown | sand |
| Method: DPT | | | |
| Monitor Reading (ppm): 0.0 | | | |

**COMPOSITE SAMPLE DATA:**

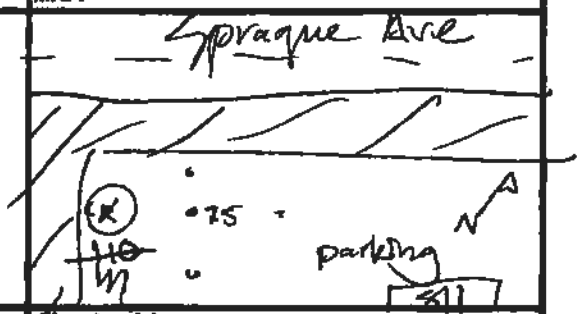
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| | | | | |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| VOCs | 3 40 ml. vial | DI water | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):** MBrock

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: Saufley Field, Site 05
Project No.: 112G02748

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

Sample ID No.: 05-SS-~~110~~ 111-0608
Sample Location: SB-H-0111
Sampled By: MB
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 7·30·11<br>Time: 1300<br>Method: DPT<br>Monitor Reading (ppm): 0.0 | 6-8 | red | dense moist sand |

**COMPOSITE SAMPLE DATA:**

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

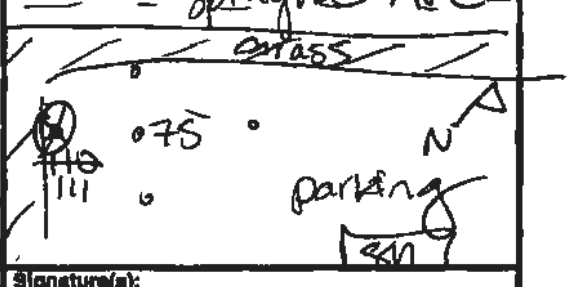
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | | Collected | Other |
|---|---|---|---|---|
| PAH | 8 oz. glass jar | no pres. | ✓ | |
| ~~TRPH~~ | ~~8 oz. glass jar~~ | ~~no pres.~~ | | |
| VOCs | 3 40 ml. vial | DI water | | |

**OBSERVATIONS / NOTES:**

DUP

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | 05-SS-110-0608D |

**Signature(s):** MBrown

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sauflen Field Site 5
Project No.: 1126-02F49

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

Sample ID No.: ~~SS~~ OS-SS-112-0001
Sample Location: 112
Sampled By: AJL
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

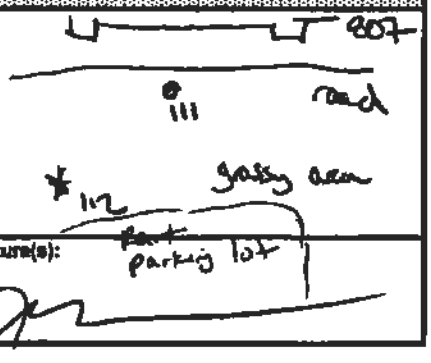
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1104 | 0-2' | dark brown + red | med fine - fine sand |
| Method: Bucket auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| Fill 1.0 | | | | |
| unpilh 1.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz glass jar | Yes | |

**OBSERVATIONS / NOTES:**

**MAP:**




**QUALITY CONTROL:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field Site 5
Project No.: 112G02740

Sample ID No.: 05-SS-112-0406
Sample Location: 112
Sampled By: AL
C.O.C. No.:

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

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

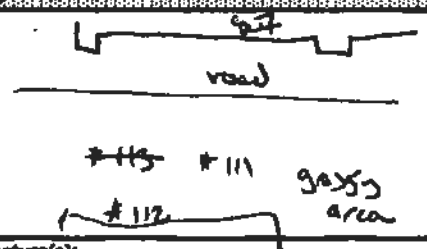
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1120 | 4-6' | medium brown | med fine - fine sand |
| Method: Bucket Auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| Unfiltered 2.6 | | | | |
| Filtered 0.6 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz jar | yes | |

**OBSERVATIONS / NOTES:**

**MAP:**




**CHECK IF APPLICABLE:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of

Project Site Name: Saufley Field Site 5
Project No.: 1116-08749

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

Sample ID No.: 05-SS-113-0002
Sample Location: 113
Sampled By: AT
C.O.C. No.:

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

**GRAB SAMPLE DATA**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA**

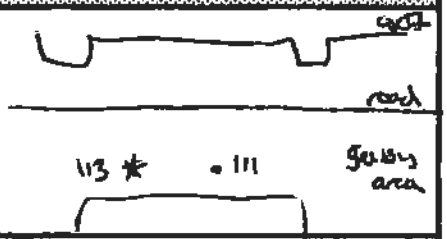
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1137 | 0-2' | dark brown | med fine - fine sand |
| Method: | | | rock | |
| Bucket auger | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| Unfiltered 3.2 | | | | |
| Filtered 0.7 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz jar | Yes | |

**OBSERVATIONS/NOTES:**

**MAP:**




**CHECK IF APPLICABLE:**

MS/MSD | Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sawfley Field Site 5
Project No.: 112G002749

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

Sample ID No.: 05-~~HS~~ SS-113-0406
Sample Location: 113
Sampled By: AI
C.O.C. No.:

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

**GRAB SAMPLE DATA**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA**

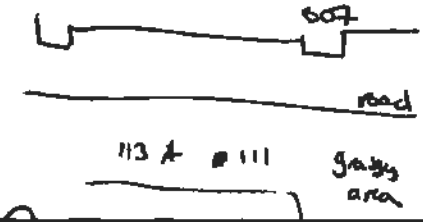
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1146 | 4-6 | dark brown | medium - fine sand |
| Method: Bucket Auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| Unfiltered 4.8 | | | | |
| Filtered 0.7 | | | | |

**SAMPLE COLLECTION INFORMATION**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz jar | AI | |

**OBSERVATIONS / NOTES:**

**MAP:**




**QAQC (if applicable):**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field Site 5
Project No.: 112G-0027-49

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

Sample ID No.: OS-SS-114-0002
Sample Location: 114
Sampled By: AI
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1156 | 0-2' | Dark Brown | med fine + fine Sand |
| Method: Bucket Auger | | | Red | |
| | | | | |
| Monitor Readings (Range in ppm): | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

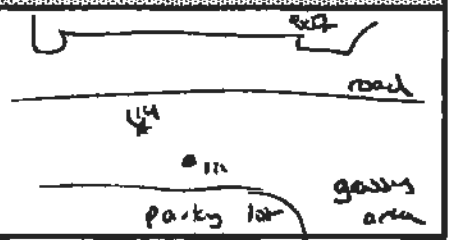
Unfiltered 3.6
Filtered 0.7

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz glass jar | Yes | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**QA/QC Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sauflay Field Site 5
Project No.: 112G00239

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

Sample ID No.: 05-SS-114-0406
Sample Location: 114
Sampled By: AI
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

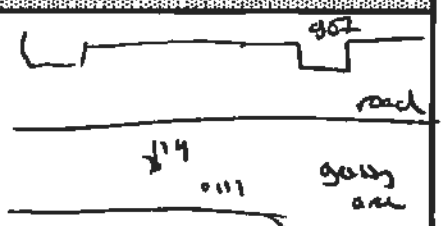
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1203 | 4-6' | med brown | med fine-fine Sand |
| Method: Bucket Auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| Unfiltered 4.2 | | | | |
| Filtered 0.8 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz glass jar | Yes | |

**OBSERVATIONS/NOTES:**

**MAP:**




**CHECK IF APPLICABLE:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s): Parking lot

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field Site 5
Project No.: 112062740

Sample ID No.: 05-SS-115-0002
Sample Location: 115
Sampled By: AL
C.O.C. No.:

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

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

**GRAB SAMPLE DATA**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA**

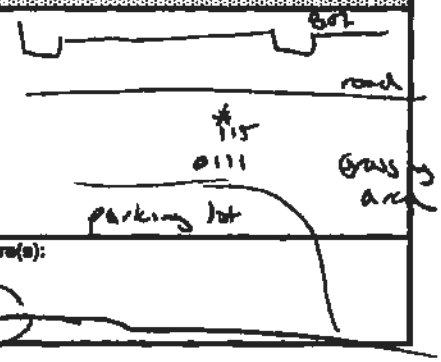
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1216 | 0-2' | med brown | med fine - fine Sand |
| Method: Bucket Auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| Unfiltered 3.4 | | | | |
| Filtered 07 | | | | |

**SAMPLE COLLECTION INFORMATION**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz glass jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**QA/QC TRACKING**

| MS/MSD | Duplicate ID No.: |
|---|---|
| ✓ | FD12051101 |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sauflg Field Site 5
Project No.: 1126-002-740

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

Sample ID No.: 05-SS-115-46
Sample Location: 115
Sampled By: AZ
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

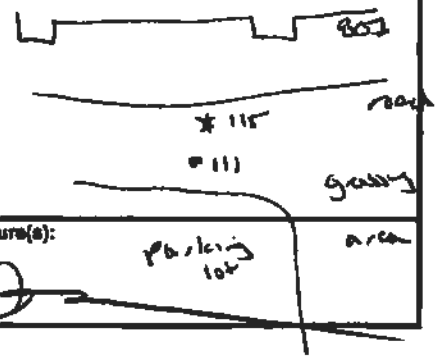
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1220 | 4-6' | rust - | med fine - fine sand |
| Method: | | | med brown | |
| Bucket Auger | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| Unfiltered 2.9 | | | | |
| Filtered 0.0 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz glass jar | Yes | |

**OBSERVATIONS / NOTES:**

**MAP:**




**QUALITY APPLICATION:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field Site 5
Project No.: 112G02478

Sample ID No.: 05-SS-116-116-0002
Sample Location: 116
Sampled By: AL
C.O.C. No.:

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

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

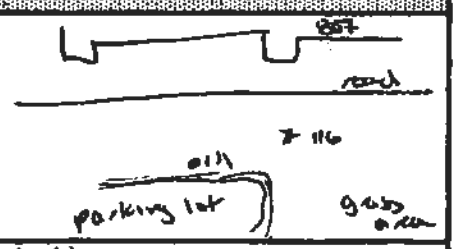
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1234 | | | |
| Method: Bucket Auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| unfiltered 4.8 | | | | |
| filtered 0.9 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz glass jar | ✓ | |

**OBSERVATIONS / NOTES:**

**MAP:**




**QUALITY ASSURANCE:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sawhey Field Site 5
Project No.: 112G00274A

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

Sample ID No.: 05-SS-116-0406
Sample Location: 116
Sampled By: AC
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1244 | 4-6 | rust | med fine - fine sand |
| Method: | | | | |
| Bucket Auger | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| unfiltered 4.1 | | | | |
| filtered 1.0 | | | | |

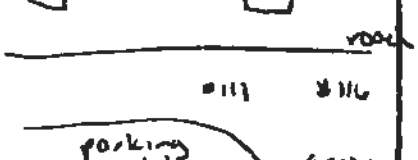
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz glass jar | Y | |

**OBSERVATIONS / NOTES:**

Held for analysis

**MAP:**




**QA/QC FLAGS:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Saufley Field Site 5
Project No.: 1126-00 2348

Sample ID No.: 05-SS-117-0002
Sample Location: 117
Sampled By: AL
C.O.C. No.:

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

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

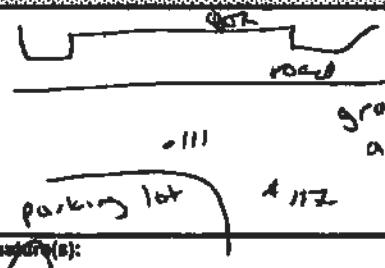
| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1250 | 0-2 | | |
| Method: Bucket Auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| unfiltered 4.2 | | | | |
| filtered 0.2 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz jar | yes | |

**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: Saufley Field Site 5
Project No.: 1126 002740

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

Sample ID No.: 05-SS-117-0406
Sample Location: 117
Sampled By: AT
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1310 | 4-6' | med brown | med fine - fine sand |
| Method: Bucket Auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| Unfiltered 3.2 | | | | |
| Filtered 1.3 | | | | |

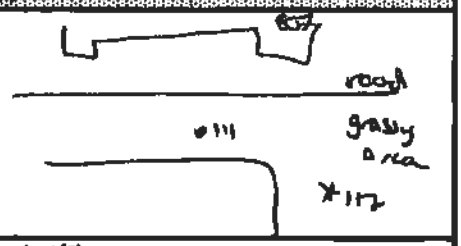
**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz glass jar | ✓ | |

**OBSERVATIONS / NOTES:**

Held for analysis

**MAP:**




**QUALITY CONTROL:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sawfly Field Site 5
Project No.: 112G002748

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

Sample ID No.: OS-SS-118-0406
Sample Location: 118
Sampled By: AL
C.O.C. No.:

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

**GRAB SAMPLE DATA**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1345 | 4-6' | med brown-mat | med fine - fine sand |
| Method: Bucket Auger | | | | |
| Monitor Readings (Range in ppm): | | | | |
| Unfiltered 5.1 | | | | |
| Filtered 1.2 | | | | |

**SAMPLE COLLECTION INFORMATION**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz glass jar | Yes (Y) | |

**OBSERVATIONS / NOTES:**

**MAP:**

118
6'
68

**Circle if Applicable:**

MS/MSD ✓

Duplicate ID No.: FD 120611 06

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sauflex Field Site 5
Project No.: 112G.002749

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

Sample ID No.: OS-SS-119-0406
Sample Location: 119
Sampled By: AE
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1356 | 4-6' | med brown | med fine - fine |
| Method: | | | | |
| Bucket auger | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| Unfiltered 5.6 | | | | |
| Filtered 1.8 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz glass jar | Yes | |

**OBSERVATIONS / NOTES:**

**MAP:**

68 ⟷ 119
10'

**QA/QC (if applicable):**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sufly Field Site 5
Project No.: 1126-002748

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

Sample ID No.: 05-SS-120-0406
Sample Location: 120
Sampled By: AL
C.O.C. No.:

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

**GRAB SAMPLE DATA**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1403 | 4-6' | med brown - | med fin - fine sand |
| Method: Bucket auger | | | mott | |
| Monitor Readings (Range in ppm): | | | | |
| Unfiltered 3.9 | | | | |
| Filtered 1.9 | | | | |

**SAMPLE COLLECTION INFORMATION**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz glass jar | Yes | |

**OBSERVATIONS / NOTES**

**MAP**

**QA/QC If Applicable**

| MS/MSD | Duplicate ID No.: |
|---|---|

Signature(s):

Tetra Tech NUS, Inc.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page ___ of ___

Project Site Name: Sawtelle Field Site 5
Project No.: 112G02274G

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

Sample ID No.: GS-SS-121-0406
Sample Location: 121
Sampled By: AZ
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: | | | |
| Monitor Reading (ppm): | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth Interval | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 12/6/11 | 1409 | 4-6 | med brown - | med fine - fine sands |
| Method: Bucket Auger | | | rust | |
| Monitor Readings (Range in ppm): | | | | |
| Fil Head 2.1 | | | | |
| Unfil Head 6.2 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAHs | 1 4oz glass jar | Yes | |

**OBSERVATIONS / NOTES:**

**MAP:**

121 1 ft. 6g

**QC/QA INFORMATION:**

MS/MSD

Duplicate ID No.:

Signature(s):

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Southley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-132-02
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 1045 | 0-2 | Med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| FID 2,468 | | | | |
| PID 3,168 | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
| hold for TRPH Speciation | | | |
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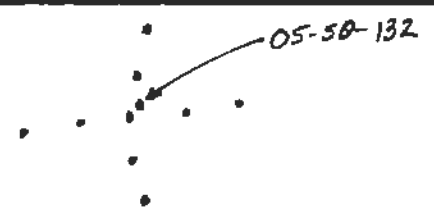
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Saufley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-132-2-4
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 1050 | 2-4 | med. Brn | med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 1,945 PID 3,214 | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
| hold for TRPH Speciation | | | |
| | | | |
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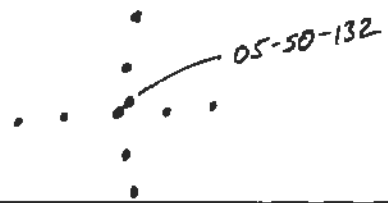
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Sandley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-132-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

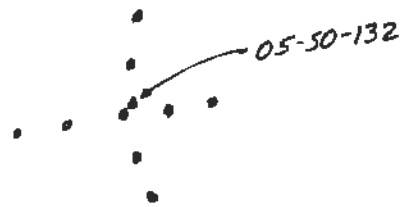
| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 1055 | 4-6 | med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| FID 39.7 | | | | |
| PID 33.3 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
| hold for TRPH Speciation | | | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
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Signature(s):

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Saufley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-126-02
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar-2012 | 0900 | 0-2 | Med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 4.2 PID 2.4 | | | | |
| | | | | |
| | | | | |
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**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
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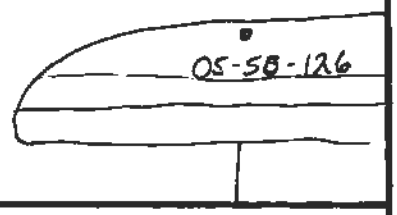
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Southey Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-SO-126-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0910 | 4-6 | med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 4.3 PID 0.8 | | | | |
| | | | | |
| | | | | |
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**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
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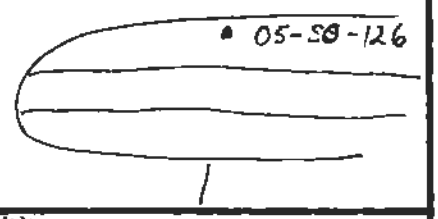
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
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**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Saufley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-SD-127-02
Sample Location:
Sampled By: LS/AM
C O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

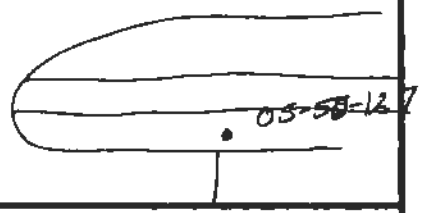
| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0920 | 0-2 | Med. Brn | Med fine to fine SAND |
| Method: | | | | |
| | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| FID 2.3 | | | | |
| PID 2.8 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Saufley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-SO-127-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0930 | 4-6 | Med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 5.3 PID 1.2 | | | | |
| | | | | |
| | | | | |
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**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
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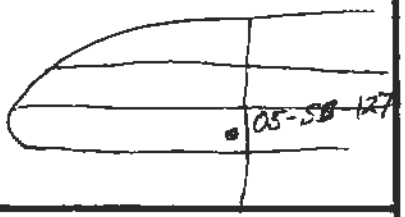
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Southley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-SO-128-0-2
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 3, 27, 2012 | | | |
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | ~~0935~~ | 0-2 | Med. Brn | Med fine to fine Sand |
| Method: | 0935 | | | |
| | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| FID 3.4 | | | | |
| PID 2.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
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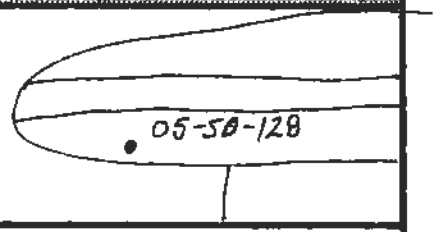
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Saufley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-SO-1284-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0940 | 4-6 | Med. Brn | Med fine to fine SAND |
| Method: | | | | |
| | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| FID 4.6 | | | | |
| PID 4.8 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
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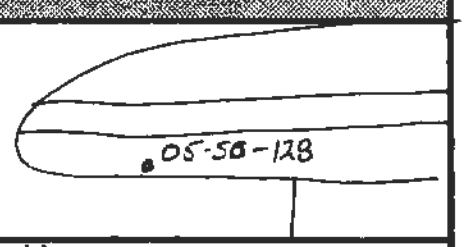
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Saufley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-129-0-2
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

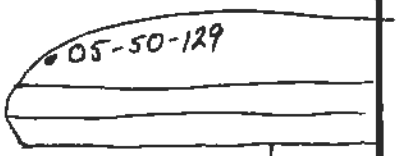
| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0945 | 0-2 | med. Brn | med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| FID 2.4 | | | | |
| PID 4.6 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Saufley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-129-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

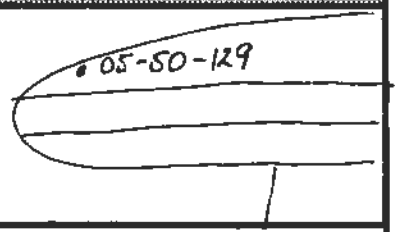
| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0950 | 4-6 | Med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| FID 2.1 | | | | |
| PID 4.8 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz Soil jar | LW/AM | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Saufley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-SO-130-02
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 1005 | 0-2 | Med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 2.3 PID 3.8 | | | | |
| | | | | |
| | | | | |
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**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
| | | | |
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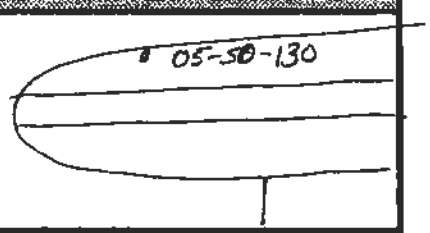
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Southley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-130-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 1010 | 4-6 | Med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 3.3 PID 2.0 | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
| | | | |
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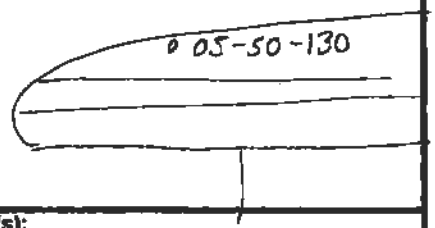
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
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| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Sandley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-131-0-2
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

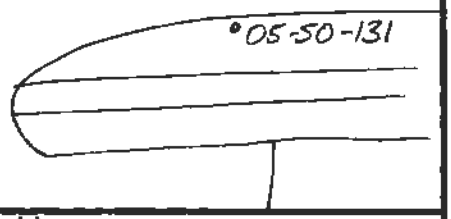
| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0955 | 0-2 | med. Brn | med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): | | | | |
| FID 5.6 | | | | |
| PID 6.4 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Southley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-131-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

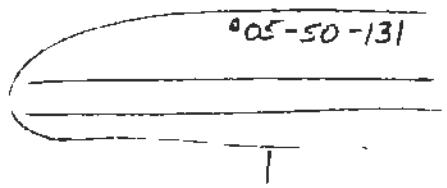
| Date: | Time | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 1000 | | med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings | | | | |
| (Range in ppm): | | | | |
| FID 6.6 | | | | |
| PID 2.3 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4oz Soil jar | LW/AM | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

Signature(s):

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Southley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-SO-122-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0810 | 4-6 | Med. Brn | Med fine to fine Sand |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 4.7 PID 1.1 | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
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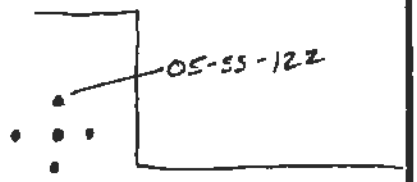
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Sandley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-123-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

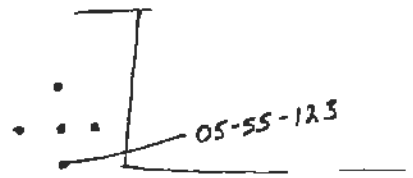
| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0838 | 4-6 | Med. Brn | Med fine to fine SAND |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 6.4 PID 1.1 | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |

**OBSERVATIONS / NOTES:**

**MAP:**




**Circle If Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Southey Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-50-124-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Date: 3, 27, 2012 | | | |
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0825 | 4-6 | Med. Brn | Med fine to fine SAND |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 5.8 PID 0.9 | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
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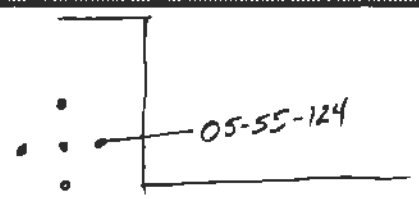
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# SOIL & SEDIMENT SAMPLE LOG SHEET



Project Site Name: Southley Field Site 5
Project No.: 112G027400 JM26

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

Sample ID No.: 05-SO-125-4-6
Sample Location:
Sampled By: LS/AM
C.O.C. No.:

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

**GRAB SAMPLE DATA:**

| Date: 3, 27, 2012 | Depth | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|
| Time: | | | |
| Method: NA | | | |
| Monitor Reading (ppm): NA | | | |

**COMPOSITE SAMPLE DATA:**

| Date: | Time | Depth ft | Color | Description (Sand, Silt, Clay, Moisture, etc.) |
|---|---|---|---|---|
| 27 Mar 2012 | 0845 | 4-6 | med. Brn | Med fine to fine SAND |
| Method: | | | | |
| | | | | |
| Monitor Readings (Range in ppm): FID 4.3 PID 1.7 | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**SAMPLE COLLECTION INFORMATION:**

| Analysis | Container Requirements | Collected | Other |
|---|---|---|---|
| PAH | 1 4 oz Soil jar | LW/AM | |
| | | | |
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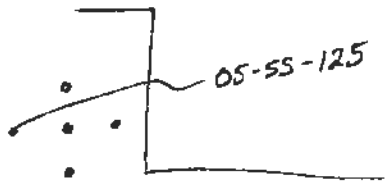
**OBSERVATIONS / NOTES:**

**MAP:**




**Circle if Applicable:**

| MS/MSD | Duplicate ID No.: |
|---|---|
| | |

**Signature(s):**

# APPENDIX C

# GROUNDWATER SUPPORT DATA

TtNUS/TAL-03-071/2642-5.4

September 15, 2003

Project Number 2642

Ms. Tracie Vaught
Remedial Project Manager
Florida Department of Environmental Protection
2600 Blair Stone Road, Office 471F
Mail Station 4535
Tallahassee, FL 32399-2400

Reference: Clean Contract No. N62467-94-D-0888
Contract Task Order No. 274

**Subject: Site Assessment Report Addendum for Underground Storage Tank Site 2406 Outlying Landing Field Saufley, Naval Education and Training Professional Development and Technical Center, Naval Air Station Pensacola, Pensacola, Florida**

Dear Ms. Vaught:

Tetra Tech NUS, Inc. is pleased to submit, for your review, the Final Site Assessment Report Addendum for Underground Storage Tank Site 2406 Outlying Landing Field Saufley, Naval Education and Training Professional Development and Technical Center, Naval Air Station Pensacola, Pensacola, Florida.

This report has been prepared for the U.S. Navy Southern Division, Naval Facilities Engineering Command under Contract Task Order Number 274 for the Comprehensive Long-term Environmental Action Navy Contract Number N62467-94-D-0888.

If you have any questions, please call me at (850) 385-9899.

Sincerely yours,

Gerald Walker, P.G.
Project Manager

GAW/whe

Enclosure

c: Greg Campbell, NAS Pensacola NPWC
Mr. Byas Glover, Naval Facilities Engineering Command
Debbie Wroblewski (Cover Letter Only)
Mark Perry (unbound)
Tallahassee file

# Site Assessment Report Addendum

for

# Underground Storage Tank Site 2406 Outlying Landing Field Saufley, Naval Education and Training Professional Development and Technical Center (NETPDTC)

## Naval Air Station Pensacola

Pensacola, Florida

**Southern Division**
**Naval Facilities Engineering Command**

**Contract No. N62467-94-D-0888**
**Contract Task Order 0274**

September 2003

# SITE ASSESSMENT REPORT ADDENDUM
# FOR
# UST SITE 2406, OUTLYING LANDING FIELD SAUFLEY
# NAVAL EDUCATION and TRAINING PROFESSIONAL DEVELOPMENT and TECHNICAL CENTER

## NAVAL AIR STATION PENSACOLA
## PENSACOLA, FLORIDA

**COMPREHENSIVE LONG-TERM**
**ENVIRONMENTAL ACTION-NAVY (CLEAN) CONTRACT**

**Submitted to:**
**Southern Division**
**Naval Facilities Engineering Command**
**2155 Eagle Drive**
**North Charleston, South Carolina 29406**

**Submitted by:**
**Tetra Tech NUS, Inc.**
**661 Andersen Drive**
**Pittsburgh, Pennsylvania 15222**

**CONTRACT NUMBER N62467-94-D-0888**
**CONTRACT TASK ORDER 0274**

**September 2003**

**PREPARED UNDER THE SUPERVISION OF:**

**GERALD WALKER**
**TASK ORDER MANAGER**
**TETRA TECH NUS, INC.**
**TALLAHASSEE, FLORIDA**

**APPROVED FOR SUBMITTAL BY:**

**DEBBIE WROBLEWSKI**
**PROGRAM MANAGER**
**TETRA TECH NUS, INC.**
**PITTSBURGH, PENNSYLVANIA**

# EXECUTIVE SUMMARY

Tetra Tech NUS, Inc. (TtNUS) has been authorized by Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) to prepare site assessment reports for petroleum impacted sites at Naval Air Station (NAS) Pensacola in Escambia County, Florida. This Site Assessment Report Addendum (SARA) has been prepared to evaluate impact to soil and groundwater resulting from operation of underground storage tanks and a fuel transfer line located at UST Site 2406, Outlying Landing Field (OLF) Saufley.

## Site Assessment

The following activities were conducted as part of this SARA:

- Review of available Navy documents to identify potential sources and receptors for petroleum hydrocarbons in the vicinity of Underground Storage Tank (UST) Site 2406.
- Assessment of the nature and extent of petroleum constituents in soil and groundwater in the vicinity of UST Site 2406 using direct push technology (DPT) methods for soil and groundwater sampling and mobile laboratory analysis.
- Installation of six shallow permanent monitoring wells, 13 intermediate monitoring wells, and two deep monitoring wells.
- Collection of groundwater samples from the permanent monitoring wells for laboratory analysis of volatile organic aromatics (VOAs), polynuclear aromatic hydrocarbons (PAHs), ethylene dibromide (EDB), total recoverable petroleum hydrocarbons (TRPH), and lead.
- Comparison of soil analytical results to the Soil Cleanup Target Levels (SCTLs) and the groundwater analytical results to the Groundwater Cleanup Target Levels (GCTLs) in Chapter 62-777 Florida Administrative Code (F.A.C.).
- Evaluation of aquifer properties to interpret the movement of groundwater at the site.

## Conclusions and Recommendations

The conclusions based on the data collected during the site assessment performed by TtNUS at UST Site 2406, OLF Saufley, are summarized as follows:

- Free-product was detected in six shallow monitoring wells in the vicinity of the aviation gasoline (AVGAS) UST area and fuel distribution pipelines, approximately at the intersection of Raby Avenue and McKinnon Street.

- Field screening samples and laboratory analytical data indicate an area of soil contamination in the vicinity of the free product plume.

- Laboratory analyses of soil samples with organic vapor analysis (OVA) results greater than 50 parts per million (ppm) indicate that concentrations of petroleum constituents in site soil are greater than the Soil Cleanup Target Levels (SCTLs).

- Groundwater sampling results from DPT and monitoring wells indicate that concentrations of dissolved petroleum contaminants of concern in site groundwater exceed GCTLs.

- No GCTL exceedances were detected in the deep monitoring wells.

- Exposure pathways of human receptors to groundwater via surface water or supply wells are not complete.

**Recommendations**

Based upon the hydrogeological and chemical data presented in this SARA and the requirements of Chapter 62-770, F.A.C., TtNUS recommends that a remedial action plan (RAP) be implemented for UST Site 2406, OLF Saufley. In addition to the RAP for the known contamination, further evaluation and proper closure of the fuel oil USTs, the AVGAS USTs, and the fuel distribution piping system should be conducted, and immediate recovery of free product should be initiated.

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# ACRONYMS

| | |
|---|---|
| AST | Aboveground Storage Tank |
| AVGAS | Aviation Gasoline |
| BTEX | Benzene, Toluene, Ethylbenzene, and Xylenes |
| bls | Below Land Surface |
| BTOC | Below Top Of Casing |
| DEP-SOP-001/01 | FDEP Field Activities SOPs |
| DPT | Direct-Push Technology |
| EDB | Ethylene dibromide or 1,2-dibromoethane |
| EDC | Ethylene dichloride or 1,2-dichloroethane |
| F.A.C. | Florida Administrative Code |
| FDEP | Florida Department of Environmental Protection |
| FID | Flame Ionization Detector |
| FL-PRO | Florida Petroleum Range Organics |
| Ft | feet |
| GCTLs | Groundwater Cleanup Target Levels |
| HSA | Hollow Stem Auger |
| ID | Inside Diameter |
| mg/kg | milligrams per kilogram |
| MSL | relative groundwater elevation |
| NAAS | Naval Auxiliary Air Station |
| NAS | Naval Air Station |
| NETPDTC | Naval Education and Training Professional Development and Technical Center |
| NETPMSA | Naval Education and Training Program Management Support Activity |
| NTTC | Naval Technical Training Center |
| OLF | Outlying Landing Field |
| OVA | Organic Vapor Analyzer |
| PAH | Polynuclear Aromatic Hydrocarbons |
| ppm | parts per million |
| PVC | Poly Vinyl Chloride |
| PWC | Public Works Center |
| PW03 | Potable Water Well #3 |
| PW04 | Potable Water Well #4 |
| RAP | Remedial Action Plan |
| SARA | Site Assessment Report Addendum |
| SCTLs | Soil Cleanup Target Levels |
| SOP | Standard Operating Procedure |
| SOUTHNAVFACENGCOM | Southern Division, Naval Facilities Engineering Command |
| SWL | Static Water Level |
| TCA | Tetrachlorethane |
| TOC | Top Of Casing |
| TRPH | Total Recoverable Petroleum Hydrocarbon |
| TtNUS | Tetra Tech NUS, Inc. |
| µg/L | micrograms per liter |
| USEPA | United States Environmental Protection Agency |
| UST | Underground Storage Tank |
| VOA | Volatile Organic Aromatic |
| VOC | Volatile Organic Compounds |

# 1.0 SITE DESCRIPTION AND BACKGROUND INFORMATION

TtNUS, under contract to the Department of Navy, SOUTHNAVFACENGCOM, has completed this SARA to document the additional site assessment performed at UST Site 2406, OLF Saufley Field, Naval Education and Training Professional Development and Technical Center (NETPDTC) located in Pensacola, Florida. The SAR Summary Sheet is included in Appendix A.

## 1.1 SITE LOCATION AND CONDITIONS

OLF Saufley Field is located in northwest Florida, Escambia County. The base is situated between Highway 10 and Perdido Bay approximately five miles northwest of Pensacola, Florida. OLF Saufley consists of four airstrips, two of which are active. The base also has a small number of support buildings and a Federal Prison which are located south of the airfield (Figure 1-1). OLF Saufley covers 866 acres of land, the majority of which is wooded or used for the airstrips.

UST Site 2406 is in the vicinity of the former location of potable water well #4 (PW04; Figure 1-1) which was located at the southwest corner of Building 2406. Most of the area in the vicinity of UST Site 2406 is paved with asphalt or concrete. Buildings 811 and 845 are located immediately to the west of Building 2406. Two wooded areas, approximately a half acre and two acres respectively, are located south-southwest of Building 2406. A former tank area containing six 20,000 gallon USTs (Figure 1-2) was situated within these wooded areas. A 10" fuel line distributed the AVGAS or jet fuel to the landing field from the UST area. In addition to the USTs and fuel product line, there are also two 20,000 gallon aboveground storage tanks (ASTs) located behind Building 804 and four 7,800 gallon USTs located beneath the ASTs. The 7,800 gallon USTs were abandoned in place in November 1988.

## 1.2 SITE HISTORY

OLF Saufley opened in 1940 as Naval Auxiliary Air Station (NAAS) Saufley. NAAS Saufley was used to train pilots during World War II and the Korean Conflict. In 1957, the mission at Saufley Field was changed to basic training for naval aviators. NAAS Saufley was re-designated as a Naval Air Station in 1968 and retained that status until 1976 when NAS Saufley operations were discontinued and the facility was placed in caretaker status. Between 1976 and 1979 Saufley Field was used as an outlying landing field for NAS Whiting Field. In 1979, Saufley Field was reactivated as Naval Educational and Training Program Management Support Activity (NETPMSA). Saufley Field was renamed the Naval Education and Training Professional Development and Technical Center in 1996. Saufley Field is now used primarily to train and educate Naval personnel and to house Federal prisoners. NAS Whiting Field pilots use two of the airstrips for touch and go landing exercises.

In 1994, the Public Works Center (PWC) potable water treatment system at OLF Saufley included two active potable water wells (PW03 and PW04; Figure 1-1). On May 9, 1994, a water sample from PW04 effluent indicated benzene contamination levels of 0.032 milligrams per liter (mg/L), exceeding the Florida Department of Environmental Protection (FDEP) drinking water standard of 0.001 mg/L. PW04 was taken off-line, and was subsequently placed on quarterly sampling for one year for observation and corrective action to remove the contamination. In April 1996, PW03 and PW04 were abandoned in-place. Currently the only source of potable water for OLF Saufley is a well field located at the Naval Technical Training Center (NTTC) Corry Station, located approximately 5 miles north of Bayou Grande.

As part of the investigation, TtNUS completed an informal survey of residents located on Saufley Field Road to determine their current water source. Municipal water is currently available for the residents.

## 1.3 PREVIOUS INVESTIGATION

A site assessment was conducted at UST Site 2406 in April and May 1996 by NAS Pensacola PWC. A total of ten monitoring wells (nine shallow and one deep) were installed and soil samples were collected from boreholes during the installation of the monitoring wells. Soil samples were collected at 3 foot intervals to a depth of 39 feet below land surface (bls), and analyzed for organic vapors. Organic vapors exceeding 50 ppm were detected in soil samples from the boreholes associated with the installation of monitoring wells OLFS-2406-MW3, OLFS-2406-MW4, and OLFS-2406-DMW10. Groundwater sampled from OLFS-2406-MW3 contained ethylbenzene, toluene, total xylenes, naphthalene, total residual petroleum hydrocarbons (TRPH), lead, and 1,2-dibromoethane (EDB) above FDEP Groundwater Cleanup Target Levels (GCTLs). (SDIV, 1998) NAS Pensacola PWC concluded that excessively contaminated soil existed in the vicinity of OLFS-2406-MW3 and OLFS-2406-DMW10 (Figure 4-1), petroleum constituents in the groundwater in the vicinity of OLFS-2406-MW3 were present, the source could not be determined, and no free product existed in the groundwater. NAS Pensacola PWC recommended the development of a RAP for soil and development of a Monitoring Only Plan for groundwater.

After review of the SAR, the FDEP responded with comments requiring additional assessment to further delineate the extent of the soil and groundwater contamination, as well as, determine the source of the contamination. FDEP specifically requested an additional shallow monitoring well and an intermediate monitoring well be installed.

During July and August, 2000, additional site assessment was conducted by TtNUS in the area near PW04. Seven soil borings were advanced at the site to total depths of 42 feet. Soil samples from the borings were screened for soil contamination and five soil samples were sent to a laboratory for confirmatory analysis of gasoline and kerosene analytical group parameters Soil screening results were

less than 50 ppm and the soil sample laboratory analytical results were less than FDEP Soil Cleanup Target Levels (SCTLs). Three new monitoring wells were installed, one shallow well screened at the water table (OLFS-2406-MW11), one intermediate well (OLFS-2406-DMW12 screened from 65-70 feet bls), and one deep well (OLFS-2406-DMW13 screened from 130-140 feet). Slug tests were conducted on two intermediate monitoring wells (OLFS-2406-DMW10 and OLFS-2406-DMW12) and one deep monitoring well (OLFS-2406-DMW13) to provide site specific hydraulic conductivity data. Groundwater samples were collected from OLFS-2406-DMW10, OLFS-2406-DMW12, and OLFS-2406-DMW13. These groundwater samples were also analyzed for gasoline and kerosene analytical group parameters. At this time water table wells OLFS-2406-MW3, OLFS-2406-MW4, and OLFS-2406-MW11 were dry likely due to drought conditions. Results of the additional site assessment indicated that a groundwater sample from monitoring well OLFS-2406-DMW12 contained EDB (0.024 micrograms per liter [µg/L]) and benzene (400 µg/L) at concentrations exceeding FDEP's GCTLs of 0.02 and 1µg/L, respectively.

Based on the exceedances reported in monitoring well OLFS-2406-DMW-12, the site assessment was continued and included the installation of three additional monitoring wells (OLFS-2406-DMW-14, OLFS-2406-DMW-15, and OLFS-2406-DMW-16) surrounding monitoring well OLFS-2406-DMW-12. In October and November 2001, groundwater samples were collected from six monitoring wells including: OLFS-2406-MW10, OLFS-2406-MW12, OLFS-2406-MW13, OLFS-2406-MW14, OLFS-2406-MW15, and OLFS-2406-MW16 and analyzed for gasoline and kerosene analytical group parameters. Appendix B includes an analytical summary table and laboratory results for this additional groundwater sampling event.

The analytical results for the additional sampling event indicated that benzene was present in four of the monitoring wells at concentrations ranging from 40 to 6,200 µg/L (estimated). The detected concentrations exceeded the FDEP GCTL of 1µg/L for benzene. Ethylbenzene, total xylenes and toluene were detected in the groundwater sample from monitoring well OLFS-2406-MW16 at concentrations of 170 µg/L (estimated), 539 µg/L (estimated), and 3,100 µg/L (estimated), respectively. All three detected concentrations exceeded the respective FDEP GCTLs. 1,2-Dichloroethene was detected in the groundwater sample from monitoring well OLFS-2406-MW12 at a concentration (13 µg/L) exceeding the FDEP GCTL of 3 µg/L. Total xylenes, chloroform, and methylene chloride were also detected in groundwater samples collected during the sampling event; however, detected concentrations did not exceed the FDEP GCTLs.

Because of the elevated concentrations detected in the deep monitoring wells located at the site, SOUTHNAVFACENGCOM determined that additional investigation and assessment was warranted and authorized the work completed within this report.

# 2.0 SITE ASSESSMENT METHODOLOGY

Soil and groundwater assessment data were collected in order to determine the nature and extent of petroleum impact due to past operation of the two former UST areas, the 10" fuel transfer line, and the two ASTs located near Building 2406. The following activities were conducted as part of the site assessment:

- Quality Assurance
- Soil Assessment
- Groundwater Assessment
- Aquifer Characterization

The site assessment methods used during this investigation are discussed below. The results of the investigation are presented in Chapters Three and Four.

## 2.1 QUALITY ASSURANCE

The site assessment investigation was conducted in accordance with the FDEP Standard Operating Procedures (SOPs) for Field Activities (DEP-SOP-001/01).

- Decontamination Procedures
- Instrument Calibration
- Sample Collection Procedures
- Sample Management

Equipment used to advance the soil borings, to install monitoring wells, and to collect soil or groundwater samples was decontaminated prior to and following each use.

Field instruments were used during the site assessment to measure organic vapor concentrations and to monitor groundwater quality during sampling. Organic Vapor Analyses (OVAs) were made using a Photovac MicroFID (FID) as required by FDEP. Prior to each day's activities, the FID was field calibrated with 100-ppm methane-in-air span gas, in accordance with the manufacturer's directions. During each day's sampling, periodic instrument response checks were made with the span gas. Groundwater quality measurements were made with a Horiba U-10 multiparameter instrument. Prior to each day's activities, the meter was field calibrated with a standard calibration solution, in accordance with the manufacturer's directions. Equipment calibration documents are included in Appendix C.

Groundwater sampling activities were performed in accordance with the procedures prescribed in DEP-SOP-001/01. Soil and groundwater samples were collected in containers provided by the laboratory. As part of the groundwater sampling event, quality control samples (e.g. field duplicate, matrix spike duplicate, rinsate blanks and trip blanks) were collected and submitted to the laboratory.

Sampling activities were documented in a site-specific field logbook, and samples were transmitted under chain-of-custody protocols to the laboratory.

## 2.2 SOIL ASSESSMENT

The soil screening investigation was conducted at UST Site 2406 to further evaluate the extent of the petroleum contamination in the soil previously detected during the initial Site Assessment. During the soil screening investigation, 33 soil borings were advanced using Direct-Push Technology (DPT) methods (Figure 2-1). Soil samples from the borings were collected for OVA screening and selected samples were submitted for on-site laboratory analysis. Additional soil samples were collected for analysis at an off-site fixed-base laboratory to confirm the on-site laboratory analysis. During the DPT field investigation, each soil boring was advanced to the water table, located approximately 45 to 55 feet bls.

### 2.2.1 Soil Lithologic Descriptions

Soil borings for the site assessment were advanced with a DPT rig using soil core samplers. The soil core samplers were four feet long and were lined with disposable plastic sleeves. The soil borings were advanced continuously from ground surface to the water table at each soil boring location. The site geologist recorded the soil properties, including texture, color and soil moisture, for each soil boring and noted staining or odors. Soil boring logs are provided in Appendix C.

### 2.2.2 Organic Vapor Analysis

Soil samples were collected at four-foot intervals for headspace screening in accordance with the procedures outlined in 62-770.200(8) F.A.C. However, in some instances, multiple discreet samples were collected and analyzed from within the four-foot interval. For example, two discreet samples were collected and analyzed from the 28 to 32 foot interval of boring NASP2406SB29 (NASP2406SB29 28' and NASP2406SB29 32'). From each four-foot interval, two 16-ounce glass jars were half-filled with soil, sealed with aluminum foil, and labeled. The soil samples were allowed to equilibrate to ambient air temperature. The FID response to total organic vapor was measured by inserting the FID probe through the foil sample cover and recording the highest instrument reading on the soil boring log.

### 2.2.3 Mobile Laboratory Soil Analysis

Nineteen soil samples were submitted to an on-site mobile laboratory for analysis. Most of the soil samples submitted for mobile laboratory analysis were collected at soil boring locations with positive headspace screening responses. The soil samples were collected from the soil boring sample interval with the highest headspace screening response. The soil samples submitted to the mobile laboratory were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX). The mobile laboratory analytical report is provided in Appendix D.

### 2.2.4 Soil Sampling for Fixed-Base Laboratory Analysis

Four soil samples were collected from UST Site 2406 for off-site fixed-base laboratory analysis to correlate the results of the headspace screening with laboratory analyses. Fixed-base laboratory analytical samples were collected from intervals reported to have low, medium, and high FID responses.

The soil samples were analyzed for VOAs using SW-846 Method 8260B, PAHs using SW-846 Method 8310, and TRPH using the Florida petroleum range organics (FL-PRO) method. The laboratory analytical report is included in Appendix E.

## 2.3 GROUNDWATER ASSESSMENT

The additional groundwater assessment was conducted at UST Site 2406 to determine the extent of petroleum impact to site groundwater reported during the initial Site Assessment. Groundwater samples were collected at each soil boring location during the DPT investigation and analyzed at an on-site mobile laboratory. Following the DPT investigation, permanent monitoring wells were installed at the site. The locations for the new monitoring wells were based on the data collected during the DPT investigation.

### 2.3.1 DPT Groundwater Sampling

Shallow groundwater samples were collected for on-site screening from 33 soil boring locations advanced with the DPT rig (Figure 2-1). After soil core samples were collected to water table, approximately 45 - 55 feet bls, water samples were collected with a retractable screen groundwater sampler. The groundwater water sampler was pushed approximately two feet below the water table and the retractable screen was deployed. Groundwater samples were collected from the sampler using a manual inertial pumping and submitted to the on-site laboratory and analyzed for BTEX. An additional deep groundwater sample was

collected from an interval of 75 – 80 feet bls at all boring locations. The mobile laboratory analytical report is provided in Appendix D.

Three confirmation samples were collected for analysis at an off-site fixed-base laboratory to verify the results of the mobile laboratory analyses. The confirmation samples were analyzed for BTEX (EPA Method 8260B). The laboratory analytical reports are presented in Appendix E.

### 2.3.2 Monitoring Well Locations

Following the DPT investigation, six shallow monitoring wells (OLFS-2406-MW17 through OLFS-2406-MW22), thirteen intermediate monitoring wells (OLFS-2406-DMW23 through OLFS-2406-DMW31 and OLFS-2406-DMW33 through OLFS-2406-DMW36), and two deep monitoring wells (OLFS-2406-DMW32 and OLFS-2406-DMW37) were installed at the site (Figure 2-2). Screening data obtained during the DPT investigation were evaluated to determine the locations of the new wells. Monitoring wells OLFS-2406-MW17 through OLFS-2406-MW22 were installed within the free-product plume, which was identified based on mobile laboratory data. OLFS2406-DMW24 through OLFS-2406-DMW26 and OLFS-2406-DMW30 through OLFS-2406-DMW36 were installed at the edge of the petroleum contamination plume in soil based as indicated by the OVA results. OLFS-2406-DMW23, OLFS-2406-DMW27 through OLFS-2406-DMW29, and OLFS-2406-DMW37 were installed within the petroleum contamination plume (Figure 2-2), but outside of the free product plume. These new monitoring wells were used for groundwater sampling and collecting data to evaluate aquifer properties.

### 2.3.3 Monitoring Well Installation

The majority of the monitoring well borings were drilled with a truck-mounted drill rig using 4.25-inch inside diameter (ID) hollow stem augers (HSA) creating a nominal borehole diameter of approximately 8.25-inches. Monitoring wells OLFS-2406-DMW32 and OLFS-2406-DMW37 were installed with a tractor and trailer mounted Rotosonic drill rig using 4.25-inch ID rods creating a nominal borehole diameter of approximately 4.5-inches. All wells were constructed of 2-inch ID, flush-threaded, schedule 40 polyvinyl chloride (PVC) riser and 0.010-inch slot well screen with a 6-inch point cap. The shallow wells were installed to approximately 55 feet bls with a 10-foot screen section that bracketed the water table. Eleven intermediate monitoring wells were installed to approximately 80 feet bls, two intermediate monitoring wells were installed to approximately 65 feet bls, and the two deep monitoring wells (OLFS-2406-DMW32 and OLFS-2406-DMW37) were installed to approximately 135 feet bls. All of the intermediate and deep monitoring wells were constructed of 2-inch ID, flush-threaded, schedule 40 PVC riser and 5-feet of 0.010-inch slot well screen with a 6-inch point cap.

The annulus around each well was filled approximately two to three feet above the top of the screen with US Standard Sieve size 20/40 silica sand, followed by a two foot bentonite or fine sand seal. The remainder of the annulus was grouted with a Portland/Bentonite mixture to the surface. Each well was secured with a locking, watertight cap within a steel, 8-inch diameter steel manhole. The manhole was set in a 24-inch square concrete apron finished slightly above grade. A monitoring well installation is illustrated on Figure 2-3. Monitoring well construction details are summarized on Table 2-1 and the monitoring well completion diagrams are provided in Appendix C.

During the groundwater sampling event which followed the monitoring well installation, it was determined that OLFS-2406-DMW34 was not recharging at a rate sufficient for groundwater sampling. This well was installed to an approximate depth of 65 feet bls because of a tight clay formation at 80 feet bls. Because this well was not producing, a replacement well (OLFS-2406-MW34R) was installed in the same area to an approximate depth of 65 feet bls; however, the replacement well was constructed with fifteen feet of 0.010-inch slot well screen as opposed to a five foot well screen. Although the replacement well's recharge rate was still slow, it did recharge adequately for groundwater sampling.

### 2.3.4 Monitoring Well Development

Each monitoring well was developed using a surge and pump technique. A well was considered developed once the pH, temperature, and conductivity of the extracted groundwater stabilized and the groundwater was visibly clear. Development water from the site was stored in labeled 55-gallon drums for later disposal based on the groundwater sampling analytical results. Monitoring well development records are provided in Appendix C.

### 2.3.5 Monitoring Well Sampling

Groundwater samples were collected from the newly installed site monitoring wells to evaluate groundwater quality in the shallow surficial aquifer at UST Site 2406. The groundwater samples were collected using the low-flow quiescent purging and sampling method. New Teflon® tubing was installed in each well for groundwater sampling. Each monitoring well was purged using a submersible pump until the water quality parameters were stable over consecutive readings, in accordance with the DEP-SOP-001/01. Temperature, pH, specific conductance, dissolved oxygen concentration, and turbidity were monitored while the wells were purged. Groundwater sample log sheets are provided in Appendix C.

The groundwater samples collected from each monitoring well were analyzed for Volatile Organic Compounds (VOC; EPA SW-846 Method 8260B), PAHs (EPA SW-846 Method 8270C), EDB using EPA

Method 504.1, TRPH (FL-PRO) and Lead (EPA SW-846 Method 3010A/6010B). Groundwater laboratory analytical reports are presented in Appendix E.

## 2.4 AQUIFER CHARACTERIZATION

Data were collected during the site investigation to evaluate the direction and rate of groundwater movement at the site. Groundwater elevations were determined from static water level (SWL) measurements and a well top-of-casing (TOC) elevation survey. Hydraulic conductivity values for the shallow surficial aquifer were calculated from recovery measurements made during slug tests in selected monitoring wells at the site.

### 2.4.1 Well TOC Survey

A reference point was marked on the top of each monitoring well casing on the north side. The TOC of monitoring well OLFS-2406-MW4 was established as an arbitrary datum with an elevation of 127.94 feet. The elevations of the reference points were surveyed to the nearest 0.01-foot, relative to the TOC of OLFS-2406-MW4. The survey data calculations are included in Appendix C.

### 2.4.2 Static Water Level Measurements

A round of depth-to-groundwater measurements was made in all site monitoring wells on January 6, 2003. Measurements were made from the reference points marked on the tops of the well casings with an electronic water level indicator. SWL measurements were made to the nearest 0.01-foot. Groundwater elevations were calculated from the TOC survey elevations and the SWL measurements. The depths to water measurements are included in Appendix C.

### 2.4.3 Slug Tests

Slug tests were conducted to estimate the aquifer horizontal hydraulic conductivity at one intermediate monitoring well and one deep monitoring well at the site. The well locations, OLFS-2406-DMW30 and OLFS-2406-DMW31, (Figure 2-2) were selected because they were downgradient of the source area. The shallow wells were not selected because they were located in the free-product plume.

Prior to conducting the tests, the monitoring wells were opened and allowed to equilibrate to ambient conditions. Once a well had stabilized, SWL and total well depth were recorded and used to calculate the height of the water column in the well. A pressure transducer was installed in the well and the water level was allowed to re-stabilize. The pressure transducer was connected to a data logger to record water levels during the slug tests.

To begin each test, a solid PVC slug was used to displace water in the well and the data logger was started. The data logger recorded the return of groundwater to the static level after removal of the slug. Hydraulic conductivity values were calculated from the recovery data by the Bouwer and Rice (1976) method for unconfined aquifers using the AQTESOLV™ computer program. Data logger records and test analysis plots are included in Appendix F.

# 3.0 GEOLOGY AND HYDROGEOLOGY

Data collected during the site assessment were used to evaluate geologic and hydrogeologic conditions at the site that may influence the fate and transport of hydrocarbons released to the environment. Lithology and stratigraphy were described for the vadose zone and shallow surficial aquifer at the site. Aquifer properties evaluated as part of the site assessment included depth to groundwater and groundwater elevation, groundwater flow direction and gradient, hydraulic conductivity of the shallow water bearing zone, and groundwater flow velocity. Potable water supply wells and surface water bodies in the vicinity of the site were investigated as potential groundwater exposure paths.

## 3.1 SITE STRATIGRAPHY

Interpretation of site lithology and stratigraphy was based on visual examination of soil cores collected from soil borings during the DPT investigation and drill cuttings observed during the monitoring well installation. Data from selected soil boring were used to prepare an East-West and a North-South stratigraphic cross section of the site (Figures 3-1 and 3-2, respectively). Soil boring logs from the DPT investigation are included in Appendix B.

### 3.1.1 Regional Stratigraphy

The lithologies encountered in the soil borings at UST Site 2406 are consistent with descriptions of the Pleistocene Terrace deposits and Citronelle Formation (Undifferentiated). This stratigraphic unit is described as sand with lenses of clay and gravel (Marsh, 1966). The sand is light-yellowish brown to reddish-brown color, very fine to very coarse and poorly sorted. Logs and carbonaceous zones are present in places. Fossils are extremely rare except near the coast. These formations together with the underlying Miocene Coarse Clastics comprise the surficial sand and gravel aquifer. The Pensacola Clay Aquiclude, underlying the Miocene Coarse Clastics, is typically the lower-confining unit for the area. The Pensacola Clay is estimated to occur approximately 400 to 600 feet below sea level in the vicinity of NAS Pensacola (Marsh, 1966).

### 3.1.2 Local Lithology and Stratigraphy

The typical lithology at the site consists of 6 distinct layers: brown silty clayey sand (0-4 feet bls), reddish-brown silty clayey sand (4-30 ft bls), light-brown and yellowish-brown silty sand (10-50 ft bls), light grey silty clayey sand (40-70 ft bls), yellowish-orange silty clayey sand (70-90 ft bls), and gray silty sand (below 90 ft bls). East-West and North-South lithologic cross sections showing the subsurface material were completed

and are included as figures 3-1 and 3-2, respectively. The plan view of the lithologic cross sections is shown on figure 2-2. These layers were found in borings to the west and southwest of Building 2406 from ground surface to depths of approximately 135 feet.

## 3.2 SITE HYDROGEOLOGY

Hydrogeologic data were collected during the site assessment to evaluate movement of groundwater in the shallow surficial aquifer at the site. Depth to groundwater and groundwater elevation were used to determine the groundwater flow direction and water table gradient at the site. Hydraulic conductivity values for the shallow surficial aquifer were calculated from data collected during the slug tests. Groundwater flow velocity at the site was estimated from the hydraulic conductivity and gradient data.

### 3.2.1 Static Water Level and Groundwater Elevations

Static water level (SWL) measurement data were recorded from site monitoring wells in January 2003 (Table 3-1). The SWL measurement data and the relative elevations from the well TOC survey were used to determine relative groundwater elevations at each well.

The SWL measurements in the shallow wells ranged from 40.98 feet below top of casing (BTOC) in OLFS-2406-MW17 to 45.23 feet BTOC in OLFS-2406-MW07. The relative groundwater elevations in the shallow wells ranged from 83.65 feet in OLFS-2406-MW9 and OLFS-2406-MW03 to 88.95 feet in OLFS-2406-MW17. Although free product was present in six monitoring wells, the water levels from these wells were corrected for density differences of free product.

The SWL measurements in the intermediate wells ranged from 28.45 feet BTOC in OLFS-2406-DMW31 to 48.91 ft BTOC in OLFS-2406-DMW34. The relative groundwater elevations in the intermediate wells ranged from 74.17 ft. in OLFS-2406-DMW25 to 88.06 ft. in OLFS-2406DMW27 and OLFS-2406-DMW33.

The SWL measurement in the deep wells ranged from 28.88 feet BTOC in OLFS-2406-DMW32 to 48.38 feet BTOC in OLFS-2406-DMW37. The relative groundwater elevation in the deep wells ranged from 79.62 feet in OLFS-2406-DMW32 to 81.55 feet in OLFS-2406-DMW-37.

The on-site groundwater vertical gradient was evaluated by reviewing data from monitoring well pairs: OLFS-2406-MW17 and OLFS-2406-DMW37 and OLFS-2406-DMW31 and OLFS-2406-DMW32. The relative groundwater elevation in deep well OLFS-2406-DMW37 was 7.4 feet lower than in the adjacent shallow well OLFS-2406-MW17. The vertical distance from the bottom of the screened interval of OLFS-2406-MW17 (39.5 to 54.5 feet BTOC) to the bottom of the screened interval of OLFS-2406-DMW37 (95

to 100 feet BTOC) is 45.5 feet. The difference in groundwater elevation and screened interval indicate a downward vertical gradient of approximately 0.16 feet/foot.

The relative groundwater elevation in deep well OLFS-2406-DMW32 was 0.25 feet lower than in the adjacent intermediate well OLFS-2406-DMW31. The vertical distance from the bottom of the screened interval of OLFS-2406-DMW31 (74.5 – 79.5 feet BTOC) to the bottom of the screened interval of OLFS-2406-DMW32 (130 – 135 feet BTOC) is 55.5 feet. The difference in groundwater elevation and screened interval indicate a downward vertical gradient of approximately 0.005 feet/foot.

### 3.2.2 Groundwater Flow Direction

To evaluate the direction of groundwater flow at the site, the groundwater elevations from the shallow, intermediate, and deep site monitoring wells were plotted on a site map (Figures 3-3, 3-4, and 3-5). Groundwater elevation isocontours were drawn from the plotted data. Groundwater flow direction is predicted to be perpendicular to the elevation isocontours. Interpretation of data from the site gauging event indicates that groundwater flow in the shallow (45 to 55 ft bls) screened groundwater interval is to the northeast (Figure 3-3); groundwater flow in the intermediate (65 to 80 ft bls) screened groundwater interval is generally to the west (Figure 3-4); and the groundwater flow in the deep (130 to 135 ft bls) screened groundwater interval is to the northwest (Figure 3-5).

It should be noted that groundwater in the southwest area of the base in the intermediate screened groundwater interval appears to flow to the north. There appears to be a trough located in the aquifer in the western area of the base. Groundwater in the intermediate screened interval appears to be flowing from the north/northeast and the south/southwest area of the base to this trough. Because this trough is located on the western side of the base, the overall groundwater flow is to the west.

### 3.2.3 Water Table Gradient

The average horizontal groundwater gradient across the site was calculated from the groundwater elevations measured in shallow monitoring wells and the estimated groundwater flow direction.

The groundwater flow gradient was determined using the following equation:

$$I = \frac{h_1 - h_2}{d}$$

Where:

$I$ = the hydraulic gradient
$h_1$ = the water elevation at point 1, the highest value

$h_2$ = the water elevation at point 2, the lowest value
d = the horizontal distance between point 1 and point 2 parallel to the direction of groundwater flow

The highest and lowest groundwater elevation values measured in the shallow monitoring wells were used to determine the difference in groundwater elevation across the site. The horizontal distance between the high and low groundwater elevation points was measured parallel to the estimated groundwater flow direction.

In January 2003, the relative groundwater elevation in OLFS-2406-MW17, 88.95 feet, was the highest value and the groundwater elevation in OLFS-2406-MW08, 83.40 feet, was the lowest value in the shallow monitoring wells parallel to the groundwater flow. The horizontal distance parallel to groundwater flow is approximately 470 feet. These data indicate the average hydraulic gradient of 0.01 feet/foot for the shallow wells.

### 3.2.4 Hydraulic Conductivity

Hydraulic conductivity values for the site were calculated from the slug test data from monitoring wells OLFS-2406-DMW30 and OLFS-2406-DMW31, screened from 74.5 to 79.5 feet BTOC and monitoring well OLFS-2406-DMW32, screened from 130 to 135 feet BTOC. The slug test results are summarized in Table 3-2. The slug test data records and analytical plots are included in Appendix E.

The slug test results for the two shallower monitoring wells (OLFS-2406-DMW30 and OLFS-2406-DMW31) show hydraulic conductivity ranges between 0.003001 feet/minute (OLFS-2406-DMW31) and 0.01694 feet/minute (OLFS-2406-DMW30). The geometric mean of the hydraulic conductivity values for the shallower wells at the site is approximately 0.007 feet/minute or 10.08 feet/day. The slug test results for the deeper well (OLFS-2406-DMW32) show hydraulic conductivity ranges between 0.102 feet/minute and 0.1141 feet/minute. The geometric mean of the hydraulic conductivity values for the OLFS-2406-DMW32 location is approximately 0.1 feet/minute or 144 feet/day.

The slug test data indicate an order of magnitude variation in hydraulic conductivity in the two shallower monitoring wells, OLFS-2406-DMW30 and OLFS-2406-DMW31. This variation may be due to higher silt content in the soil where OLFS-2406-DMW31 is located.

### 3.2.5 Aquifer Transmissivity

A site-specific transmissivity was calculated from the slug test hydraulic conductivity values by using the following equation:

$T=Kb_e$

Where:

T = transmissivity
K= hydraulic conductivity (ft/day)
$b_e$ = affected aquifer thickness

The surficial aquifer in the vicinity of UST Site 2406 is estimated to have an overall saturated thickness of 500 feet. The geometric mean of the slug test results for the deepest well, OLFS-2406-DMW32, was 144 feet/day. This value was used as a conservative estimate of the hydraulic conductivity of the surficial aquifer. Using the hydraulic conductivity of 144 ft/day and 500 feet for the affected aquifer thickness, the transmissivity value for the shallow surficial aquifer is estimated at 72,000 square feet per day.

### 3.2.6 Groundwater Velocity

Potential movement of groundwater at the site may be described in terms of transportation by natural flow in the saturated zone while assuming groundwater flow follows Darcy's Law. Darcy's Law may be expressed as:

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

Where:

V = average velocity
K = hydraulic conductivity
n = effective porosity
I = average hydraulic gradient

Data from soil borings advanced during the DPT investigation indicate that silty fine, medium grained sand, and silty clay are the typical lithologies at the site. Review of standard literature suggests that a representative effective porosity for this lithology is approximately 30% (Heath, 1983).

Using an average hydraulic conductivity of 10.08 feet/day, an average hydraulic gradient of 0.01 feet/foot, and an effective porosity value of 30%, the estimated average groundwater velocity for the shallow zone at the site was calculated at 0.336 feet/day.

Using an average hydraulic conductivity of 144 feet/day, an average hydraulic gradient of 0.01 feet/foot, and an effective porosity value of 30%, the estimated groundwater velocity for the deeper zone (OLFS-2406-DMW32) was calculated at 4.8 feet/day.

### 3.2.7 Potable Water Supply Well Survey

Two potable water supply wells, PW03 and PW04, were in service at OLF Saufley until May 1994. The wells were officially abandoned in-place in April 1996. Potable water supply well inventory data are presented in Table 3-3. The main source of potable water for OLF Saufley is a well field located at the Naval Technical Training Center (NTTC) Corry Station, located to the north of Bayou Grande. The water from this well field is pumped from the sand-and-gravel aquifer.

### 3.2.8 Surface Water

The nearest surface water bodies in the vicinity of UST Site 2406 are Perdido River, Perdido Bay, Eight Mile Creek, and Eleven Mile Creek. Perdido River is located approximately a half mile west of OLF Saufley along the western boundary of the base, and empties into Perdido Bay approximately one mile south of OLF Saufley. Eight Mile Creek, running east to west, and Eleven Mile Creek, running north to south, are located three-quarters of a mile north of UST Site 2406 within the OLF Saufley boundary. Eight Mile Creek empties into Eleven Mile Creek within the OLF Saufley boundary, and Eleven Mile Creek empties into Perdido River approximately a half mile west of the base.

# 4.0 SITE ASSESSMENT RESULTS

Soil and groundwater samples were collected during the site assessment to evaluate the extent of petroleum impact resulting from past UST, AST, and fuel line operations at or near UST Site 2406. The OVA screening results were evaluated following the appropriate 62-770 F.A.C. guidelines. The results of laboratory soil analyses were compared to the SCTLs established in Chapter 62-777 F.A.C. The results of groundwater analyses were compared to the GCTLs established in Chapter 62-777 F.A.C.

## 4.1 SOIL ASSESSMENT RESULTS

Soil samples were collected from soil borings advanced at UST Site 2406 for OVA. Selected samples were analyzed on site at a mobile laboratory. Soil samples representing low, medium, and high OVA results detected during the site assessment were submitted to an off-site fixed-based laboratory for analysis.

### 4.1.1 DPT Headspace Screening Results

Thirty-three soil borings were advanced at UST Site 2406 during the site assessment. Soil samples for OVA screening were collected at four-foot intervals from each soil boring. Although OVA screening samples were collected at four-foot intervals, in some instances multiple discreet samples were collected from the same sample interval and analyzed. A summary of the soil OVA results is presented in Table 4-1.

Soil samples for OVA were not collected from the 0-4 foot bls boring interval at UST Site 2406. Samples were not collected to allow hand auger confirmation that buried utilities were not present at the location and because spills to the surface soil have not been reported. Therefore the most likely source of contamination are the USTs and the underground fuel transfer pipeline which are subsurface features at the site.

The OVA data indicates that no contamination is present in the 4-25 foot bls interval. In the 25-44 foot bls interval, nine soil borings (OLFS-2406-SB7, OLFS-2406-SB21, OLFS-2406-SB24, OLFS-2406-SB25, OLFS-2406-SB26, OLFS-2406-SB27, OLFS-2406-SB28, OLFS-2406-SB29, and OLFS-2406-SB30) had non-carbon filtered (uncorrected) OVA results above 50 parts per million (ppm). This indicates excessively contaminated soil as defined in Chapter 62-770. Carbon filtered (corrected) OVA results were not made at the time of the soil screening investigation; therefore corrected headspace screening data are not available. OVA results are presented in Figure 4-1.

### 4.1.2 Mobile Laboratory Soil Sample Screening Results

Nineteen soil samples were submitted for mobile laboratory screening analysis from twelve of the soil boring locations at the site (Figure 4-2). A single soil sample was collected from seven of the soil borings, whereas, multiple soil samples from different depths were collected from OLFS-2406-SB2, OLFS-2406-SB21, OLFS-2406-SB24, OLFS-2406-SB25, and OLFS-2406-SB29. In order to confirm the OVA results, the soil samples were collected from intervals with OVA results ranging from 0 to >5000 ppm. The soil samples were analyzed for BTEX at the mobile laboratory. The analytical results are summarized in Table 4-2. The mobile laboratory analytical report is included in Appendix C.

Analysis of soil samples collected from borings OLFS-2406-SB2 and OLFS-2406-SB29 at 4 feet bls, and from OLFS-2406-SB2 at the 8-12 foot bls interval indicated no elevated concentrations above instrument detection limits. These results confirm the absence of elevated OVA results in the same intervals. Mobile lab screening analysis also confirmed contamination in the 25–44 foot bls interval. The results are summarized as follows:

- Benzene was detected in soil samples from four soil borings at concentrations ranging from 0.017 to 9.8 mg/kg. All of the detected concentrations except soil boring OLFS-2406-SB25 30' exceeded FDEP SCTLs for DE1 (1.1 milligram per kilogram [mg/kg]), DE2 (1.6 mg/kg), and LE (0.007 mg/kg). However because all of the samples were collected from depths greater than 2 feet bls, direct exposure is not a concern. The detected concentration in soil boring OLFS-2406-SB25 30' was 0.017 which exceeds the FDEP SCTL for LE, but not the DE1 and DE2 SCTLs.
- Ethylbenzene, Toluene, and total xylenes were all detected at elevated concentrations in seven borings (OLFS-2406-SB7 40-45', OLFS-2406-SB21 40', OLFS-2406-SB25 30', OLFS-2406-SB25 44', OLFS-2406-SB29 32', OLFS-2406-SB29 44', and OLFS-2406-SB30 44'). Six of the seven soil borings (excluding OLFS-2406-SB25 30') contain all these compounds at concentrations exceeding the FDEP SCTL for LE (0.60, 0.50, 0.20 mg/kg, respectively). In addition, a single occurrence of Toluene was reported in sample OLFS-2406-SB28 41' at a concentration below the FDEP SCTLs.
- Toluene was detected above the DE1 SCTL (380 mg/kg) in boring OLFS-2406-SB30 44'

Although the mobile lab analysis did confirm contamination in the 25 – 44 foot bls interval, there were soil borings with high OVA results that were not confirmed by the mobile lab analysis. Soil borings OLFS-2406-SB24 33', OLFS-2406-SB24 38', OLFS-2406-SB25 32', OLFS-2406-SB26 40', and OLFS-2406-SB28 41' all had OVA results indicating excessively contaminated soil; however, the mobile lab analysis indicates no BTEX contamination is present.

### 4.1.3 Fixed-Based Laboratory Soil Sample Confirmatory Results

Four soil samples were collected for off-site fixed-based laboratory confirmatory analysis to correlate OVA and mobile lab analysis results with contaminant concentrations (Figure 4-3). The sample intervals were selected to correspond with low (OLFS-2406-SB26-40 at 51 ppm), medium (OLFS-2406-SB21-29 at 432 ppm and OLFS-2406-SB21-40 1,200 ppm), and high (OLFS-2406-SB28-44 at >2256 ppm) OVA results detected during OVA screening. The soil samples were submitted to an off-site laboratory to be analyzed for VOAs, PAHs, and TRPH. The off-site laboratory soil samples (OLFS-2406-SB21-29, OLFS-2406-SB21-40, OLFS-2406-SB26-40, and OLFS-2406-SB28-44) collected during the site assessment are summarized in Table 4-3, and the results of the off-site laboratory analyses are summarized in Table 4-4.

Three VOAs (benzene, ethylbenzene, and total xylenes) were detected in two of the four soil samples analyzed at the off-site laboratory. Toluene was detected in all four soil samples at concentration ranging from 0.0053 to 554 mg/kg. Benzene was detected in samples OLFS-2406-SB21-40 and OLFS-2406-SB28-44 above the DE1, DE2, and LE SCTLs. However because the samples were recovered from depths greater than 2 feet bls direct exposure is not a concern. Ethylbenzene and total xylenes were also detected in these two samples above the LE SCTLs. Toluene was detected in sample OLFS-2406-SB21-40 and OLFS-2406-SB28-44 above the LE SCTL.

PAHs were not detected in the soil samples collected during the site assessment; however, TRPH was detected in two samples, OLFS-2406-SB21-40 and OLFS-2406-SB28-44. TRPH was detected above the FDEP DE1 (340 mg/kg) and LE SCTL in sample OLFS-2406-SB28-44. Again, because this sample was collected from a depth of 44 feet bls direct exposure is not a concern. The validated laboratory analytical data is included in Appendix E.

## 4.2 GROUNDWATER ASSESSMENT RESULTS

Groundwater samples were collected from soil borings during the DPT screening investigation for mobile laboratory analysis. In addition a single groundwater sample from monitoring well OLFS-2406-DMW16 was collected for mobile laboratory analysis. Three of the groundwater samples were submitted to an off-site fixed-based laboratory to verify the results of the on-site analyses. Following the DPT investigation, groundwater samples were collected from fifteen newly installed monitoring wells (6 shallow [55 ft bls], 7 intermediate [65 – 80 ft bls], and 2 deep [>80 ft bls]).

### 4.2.1 Mobile Laboratory Groundwater Screening Results

Groundwater samples were submitted for mobile laboratory screening analysis from 33 DPT soil boring locations and the existing deep monitoring well OLFS-2406-DMW16. Shallow groundwater samples were collected at the water table in each of the DPT soil boring locations at depths ranging from 45 to 55 feet bls (Figure 4-4), as well as, deep groundwater samples, 65 to 80 feet bls, in 20 of the DPT borings (Figure 4-5). The groundwater samples were analyzed for BTEX at the mobile laboratory. The mobile laboratory shallow and deep groundwater sample screening results are summarized in Tables 4-5 and 4-6, respectively. The mobile laboratory analytical report is included in Appendix D.

**DPT Shallow Groundwater Screening Results**

Benzene was detected in 16 of the 33 shallow groundwater samples at concentrations ranging from 0.8 to 9,000 µg/L. However only 12 of the detected concentrations were above the FDEP Groundwater Cleanup Target Level (GCTL) of 1 µg/L. Elevated concentrations of Toluene occurred in 24 of the 33 groundwater samples ranging from 1.0 to 59,000 µg/L; however, only 7 samples contained concentrations above the FDEP GCTL of 40 µg/L. Eight of the 33 shallow groundwater samples contained detectable levels of ethylbenzene at concentrations ranging from 1.0 to 2,800 µg/L, including 5 samples with concentrations above the FDEP GCTL of 30 µg/L. Total xylenes were detected in 11 of the 33 groundwater samples at concentrations ranging from 1.4 to 5,800 µg/L. Of the 11 total xylenes detections, only 5 were reported above the FDEP GCTL of 20 µg/L. The shallow groundwater screening results are presented in Figure 4-4.

**DPT Deep Groundwater Screening Results**

Benzene was detected in 11 of the 21 deep groundwater samples at concentrations ranging from 1.2 to 8,800 µg/L. All of the elevated detected concentrations were above the FDEP GCTL of 1 µg/L. Toluene was reported present in 5 of the 21 groundwater samples at concentrations ranging from 1.0 to 400 µg/L. One sample contained a toluene concentration (400 µg/L) above the FDEP GCTL of 40µg/L. One of the 21 deep groundwater samples (NASP-2406-SB49 80') was reported with an elevated concentration of ethylbenzene (27.6 µg/L). However, the concentration was less than the FDEP GCTL of 30 µg/L. Total xylenes were detected in 2 of the 21 groundwater deep samples. Both of the groundwater samples with detectable levels of total xylenes contained total xylenes above the FDEP GCTL of 20 µg/L. The deep groundwater screening results are presented in Figure 4-5.

**Existing Monitoring Well Groundwater Result**

Benzene, toluene, ethylbenzene, and total xylenes were detected in the groundwater sample from OLFS-2406-DMW16 at concentrations of 3,400, 160, 880, and 360 µg/L, respectively. All of the detected concentrations exceeded the FDEP GCTLs.

### 4.2.2 Fixed-Base Laboratory Groundwater Confirmation Results

Three confirmation samples, OLFS-2406-SB21-GW45, OLFS-2406-SB26-GW48, and OLFS-2406-SB28-GW48, collected during the DPT screening investigation were sent to an off-site fixed-based laboratory for confirmatory analysis. The three samples were chosen from locations that represent the range (low, medium, and high) of BTEX concentrations detected during the mobile laboratory screening analysis. The results of the groundwater laboratory analyses are summarized in Table 4-7, and the validated laboratory analytical data is included in Appendix D.

All BTEX constituents were detected in confirmation samples, OLFS-2406-SB21-GW45 (high concentration) and OLFS-2406-SB28-GW48 (medium concentration) with a similar concentration range as detected in the on-site mobile lab screening analyses. All concentrations exceeded the respective FDEP GCTLs.

The BTEX concentrations in the confirmation sample OLFS-2406-SB26-GW48 (representing the low range) were below the FDEP GCTLs, or not detected, and were similar to concentrations detected in the on-site mobile lab analysis.

### 4.2.3 Monitoring Well Sampling Results

Groundwater samples were collected from thirteen intermediate (65 to 80 feet bls) and two deep (130 to 135 feet bls) monitoring wells at the site (Figure 4-6). The shallow monitoring wells were not sampled due to the presence of free product (Figure 4-9). Groundwater samples collected from the monitoring wells were analyzed for VOCs (including EDB), PAHs, TRPH, and Lead. The results of the groundwater laboratory analyses are summarized in Table 4-8, and the validated laboratory analytical data is included in Appendix D.

**Intermediate Monitoring Well Groundwater Samples**

Seven VOCs (1,2-dibromoethane [EDB], 1,2-dichloroethane [EDC], benzene, chloroform, ethylbenzene, toluene, and total xylenes) were detected in the intermediate groundwater samples. The intermediate groundwater samples also contained detectable levels of three PAH compounds: 1-methylnaphthalene,

2-methylnaphthalene, and naphthalene. Lead and TRPH were also detected in the intermediate groundwater samples.

EDB was detected in three groundwater samples (OLFS-2406-DMW-28, OLFS-2406-DMW29 and OLFS-2406-DMW33) at concentrations (0.031, 0.048 and 0.23 µg/L, respectively) above the FDEP GCLT of 0.02 µg/L. Elevated concentrations of EDC were reported in two groundwater samples (OLFS-2406-DMW29, and OLFS-2406-DMW33) at concentrations (4.8, and 4.8 µg/L, respectively), above the FDEP GCTL of 3 µg/L.

Seven groundwater samples were reported with detectable levels of benzene at concentrations ranging from 0.58 (estimated) to 15,600 µg/L. Benzene concentrations exceeded the FDEP GCTL of 1 µg/L in five of the groundwater samples.

Detectable levels of chloroform (0.92 [estimated], 1.3, and 0.97 [estimated] µg/L) were reported in three groundwater samples (OLFS-2406-DMW24, OLFS-2406-DMW27, and OLFS-2406-DMW31, respectively). All reported concentrations were below the FDEP GCTL of 5.7 µg/L. Elevated concentrations (837 and 120 µg/L) of ethylbenzene were reported in two groundwater samples (OLFS-2406-DMW23 and OLFS-2406-DMW25, respectively) above the FDEP GCTL of 30 µg/L.

Toluene was reported in four groundwater samples including two groundwater samples (OLFS-2406-DMW23 and OLFS-2406-DMW25) with concentrations (10,700 and 2,930 µg/L, respectively) above the FDEP GCTL of 40 µg/L. Elevated concentrations of total xylenes were reported in three groundwater samples. However, only two samples (OLFS-2406-DMW23 [2,480 µg/L] and OLFS-2406-DMW25 [580 µg/L]) had concentrations of total xylenes exceeding the FDEP GCTL of 20 µg/L.

1-methylnaphthalene was reported in one groundwater sample (OLFS-2406-DMW23) below the FDEP GCTL of 20 µg/L. Similarly, 2-methylnaphthalene was reported in two groundwater samples (OLFS-2406-DMW23 and OLFS-2406-DMW25) below the FDEP GCTL of 20 µg/L. Three groundwater samples (OLFS-2406-DMW23, OLFS-2406-DMW25, and OLFS-2406-DMW26) were reported with naphthalene concentrations below the FDEP GCTL of 20 µg/L, and five groundwater samples (OLFS-2406-DMW23, OLFS-2406-DMW25, OLFS-2406-DMW28, OLFS-2406-DMW29, and OLFS-2406-DMW31) were reported with TRPH concentrations below the FDEP GCTL of 5 mg/L. Lead; however, was reported in two groundwater samples (OLFS-2406-DMW29 and OLFS-2406-DMW34R) with elevated concentrations (17.9 and 69.5 µg/L, respectively) above the FDEP GCTL of 15 µg/L.

**Deep Monitoring Well Groundwater Samples**

Detected concentrations of contaminants were not reported in the deep monitoring well groundwater samples, OLFS-2406-DMW32 and OLFS-2406-DMW37.

# 5.0 DISCUSSION

Data and documents provided by the Navy and data collected during this site assessment were used to evaluate the current site conditions. The significant findings from the site assessment activities are discussed below.

## 5.1 SOURCE OF HYDROCARBONS

Three petroleum systems have been identified at or near UST Site 2406, all or parts of which, are likely possible sources of petroleum releases to environmental media and may have resulted in the contamination detected in potable well PW04 before it was abandoned.

- Four fuel-oil USTs with a capacity of 7,800 gallons each are located in the vicinity of potable water supply well PW04, near the intersection of Raby Avenue and Pou Street. These fuel oil USTs are located upgradient of PW04 and were reportedly abandoned in place in November 1988. No documentation of a tank closure assessment for these tanks has been found. Two 20,000 gallon fuel oil ASTs are located above the abandoned USTs. These fuel oil tanks are temporarily out of service. (SDIV, 1998)

- Six 20,000 gallon USTs used to supply AVGAS or jet fuel to the flight line are located southwest of potable water supply well PW04, at the intersection of Raby Avenue and McKinnon Street. These AVGAS USTs are located downgradient of PW04. No documentation of a tank closure assessment for these tanks has been found. (SDIV, 1998)

- A 10-inch product line system, reportedly 2 miles long, was used to distribute the fuel to the flight line fuel hydrant system. The pipeline system appears to originate at a pump house adjacent to the six 20,000 gallon USTs. Three fuel pipelines exit the UST area and extend under Pou Street to the flight line. Approximately 20 segments of pipeline, with an unknown number of junctions and valves, connect the USTs to the fueling pits. Approximately 55 fueling pits were associated with this system are located on the flight line. Reportedly there are two additional tanks associated with this system located on the flight line. No documentation of a pipeline closure assessment for this system has been found. (SDIV, 1998)

The actual source and quantity of petroleum releases at the site are unknown. Benzene was detected in potable water well PW04, located within the site boundaries. During the initial Site Assessment,

petroleum contaminants were detected in the soil and groundwater in the vicinity of Building 2406, but the extent of the contamination was not completely delineated at that time.

## 5.2 SITE CONDITIONS

The site is underlain by silty sand and sandy units typical of the shallow sand and gravel aquifer. These units are expected to extend to a depth of approximately 500 feet where the top of the Pensacola Clay has been mapped (Marsh, 1966).

Depth to water in the shallow monitoring wells installed at the site ranged from approximately 40.98 feet to 46.5 feet BTOC. The relative groundwater elevation (MSL) in the shallow monitoring wells ranged from 83.65 feet to 88.94 feet. The shallow groundwater flow at the site is to the east, while the intermediate groundwater flow is generally to the west with localized variations. The average hydraulic gradient for the site was calculated to be approximately 0.01 feet/foot.

Depth to water in the intermediate monitoring wells installed at the site ranged from approximately 28.45 feet to 48.91 feet BTOC. The MSL in the intermediate monitoring wells ranged from 74.17 feet to 88.06 feet.

Depth to water in the deep monitoring wells installed at the site ranged from approximately 28.88 feet to 48.38 feet BTOC. The MSL in the deep wells ranged from 74.17 feet to 88.06 feet. The groundwater elevation in the deep well, OLFS-2406-DMW37, was lower than the groundwater elevation in the adjacent shallow well, OLFS-2406-MW17, resulting in a downward vertical gradient of approximately 0.16 feet/foot. Similarly, the groundwater elevation in the deep well, OLFS-2406-DMW32, was slightly lower that the groundwater elevation in the adjacent intermediate well, OLFS-2406-DMW32, resulting in a downward vertical gradient of approximately 0.004 feet/foot.

Hydraulic conductivity values for the site were determined from slug tests and averaged approximately 10.08 feet/day for the intermediate monitoring wells (OLFS-2406-DMW30 and OLFS-2406-DMW31). The groundwater flow velocity was calculated from gradient and hydraulic conductivity values and is estimated at 0.336 feet/day. The calculated hydraulic conductivity values for the deep monitoring well (OLFS-2406-DMW32) were higher than the hydraulic conductivity values for the intermediate monitoring wells. The average hydraulic conductivity for the deep well was 144 feet/day. Using the same gradient and effective porosity values as for the intermediate monitoring wells, the groundwater velocity in the deep well is estimated at 4.8 feet/day.

Two potable water supply wells (PW03 and PW04) were identified within a 0.50-mile radius of the site; however, both water supply wells have been abandoned.

## 5.3 FREE PRODUCT

Free product was detected in six shallow monitoring wells in the vicinity of the AVGAS UST area and fuel distribution pipelines, roughly at the intersection of Raby Avenue and McKinnon Street (Figure 5-1). Measured product thickness ranged from <0.1 inch to 1.08 feet. A petroleum release may have occurred in the vicinity of the USTs or pump house and the free product may have migrated in the local direction of groundwater flow.

## 5.4 SOIL ASSESSMENT

During the investigation, soil borings were advanced to a depth of approximately 80 feet bls at 33 locations. The results of the assessment indicate that petroleum constituents are present in the site soil as shown in Figure 5-1. Based on OVA results at soil borings, the surface soil (0 to 4 feet bls) and shallow subsurface soil (4 to 25 feet bls) at the site are unaffected. OVA results indicate "excessively contaminated soil" is present in the 25 to 55 foot bls interval surrounding the former AVGAS tank area and the fuel transfer line pump house. Analytical results from the off-site fixed-base laboratory indicate that benzene, toluene, ethylbenzene, total xylenes, and TRPH concentrations above FDEP SCTLs are present in the soil, within the area of "excessively contaminated soil".

## 5.5 GROUNDWATER ASSESSMENT

Groundwater samples were collected at 33 soil boring locations for mobile laboratory analysis. Groundwater samples were also collected from 15 monitoring wells at the site and submitted for fixed-base laboratory analysis.

Based on the results of the groundwater assessment, concentrations of dissolved petroleum constituents are present from the water table (approximately 45 feet bls) to approximately 130 feet bls (Figure 5-1). Locations with GCTL exceedances comprise an area that extends from Building 845 (east of the former AVGAS tank area) to an open area approximately 300 feet northwest of the tank farm, to the southwestern edge of the wooded area located southwest of the former tank area. Analytical results from the off-site laboratory indicate that benzene, toluene, ethylbenzene, total xylenes, EDB, EDC, and lead are present in the groundwater above FDEP GCTLs.

# 6.0 CONCLUSIONS AND RECOMMENDATION

The conclusions based on the data collected during the site assessment performed by TtNUS at UST Site 2406, OLF Saufley, are summarized as follows:

- Petroleum contaminants above the FDEP SCTLs are present in the soil at 25 to 45 feet bls in the vicinity of the free product plume.

- Free-product is present covering an approximate area of 45,000 square feet in the vicinity of the former tank farm area and fuel distribution pipelines, near at the intersection of Raby Avenue and McKinnon Street.

- Dissolved petroleum contaminants above the FDEP GCTLs are present in the groundwater. The groundwater contamination is located from the water table (approximately 45 feet bls) to 130 feet bls, in an area that extends from 200 feet east of the free product plume to 500 feet southwest of the free product plume to 600 feet west of the free product plume.

- Exposure pathways of human receptors to subsurface soil are not complete; therefore, direct exposure to the subsurface soil is not possible.

- Exposure pathways of human receptors to groundwater via surface water or potable water supply wells are not complete; therefore, direct exposure to the groundwater is not possible.

Based upon the hydrogeological and chemical data presented in this SAR Addendum the source of contamination is most likely the intersection between the fuel supply line and the former tank farm, which is located in the free product plume and area of soil contamination. The groundwater contamination has moved in a downgradient direction, which is to be expected, but it is possible that dissolved contamination has also moved in an upgradient direction during past operation of the potable water well, PW04.

In accordance with the conclusions, TtNUS recommends that a RAP be completed for UST Site 2406, OLF Saufley. In addition to the RAP for the known contamination, further evaluation and proper closure of the fuel oil USTs, the AVGAS USTs, and the fuel distribution pipe line system should be conducted, and immediate recovery of free product should be initiated

# REFERENCES

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Heath, R., 1983, Basic Groundwater Hydrology, U.S.G.S. Water Supply Paper 2220, 84 pp.

Southern Division Naval Facilities Engineering Command, 1998, Site Assessment Report Saufley Field, Site 2406 Naval Education and Training Professional Development and Technical Center Pensacola, Florida.

Marsh, Owen T., 1966, Geology of Escambia and Santa Rosa Counties, Western Florida Panhandle, Florida Geological Survey Bulletin No. 46, pp.1-140.

# SITE ASSESSMENT REPORT SUMMARY SHEET

Facility Name: Outlying Landing Field Saufley, Site 2406 Naval Education and Training Professional Development and Technical Center (NETPDTC) Reimbursement Site: ☐

Location: Pensacola, Florida State Contract Site: ☐

EDI #: _____ FAC I.D.# unregulated Other: Non-Prog. ☑

Date Reviewed: _____ Local Government: _____

(1) Source of Spill: Jet Fuel UST and transfer line Date of Spill: Unknown

(2) Type of Product:

| Gasoline Group | Gallons Lost | Kerosene Group | Gallons Lost |
|---|---|---|---|
| ☐ Leaded | | ☐ Kerosene | |
| ☐ Unleaded Regular | | ☐ Diesel | |
| ☐ Unleaded Premium | | ☑ JP-4 Jet Fuel | Unknown |
| ☐ Gasohol | | ☐ Jet A Fuel | |
| ☐ Undetermined | | ☐ Unknown | |

(3) Description of IRA: None

☐ Free product Removal: _____ (gals)
☐ Soil Removal: _____ (cubic yds)
☐ Soil Incineration: _____ (cubic yds)

(4) Free Product still present (yes/no) No Maximum apparent product thickness: _____ (feet)

(5) Maximum Groundwater contamination levels (ppb): Total VOA: _____ lead: 69.5 benzene: 15,600 MTBE: <5 EDB: 0.23 other: 1,2-DCA 4.8

(6) Brief lithologic description: Reddish-brown to light gray to tan silty fine to medium grained sand to silty clay

(7) Areal and vertical extent of soils contamination defined (yes/no) Yes

Highest current soil concentration (OVA: >5,000 (ppm) or EPA method 5030/8020: 554 (ppb)

(8) Lower aquifer contaminated? (yes/no) No Depth of vertical contamination: 80 ft.

(9) Date of last complete round of groundwater sampling: 6/06/03 Date of last soil sampling: 11/4/02

(10) QAPP approved? (yes/no) Date: _____

(11) Direction (e.g. NNW) of surficial groundwater flow: SW Figure 3-3 on page _____

(12) Average depth to groundwater: 45 (ft)

(13) Observed range of seasonal groundwater fluctuations: Unknown (ft)

(14) Estimated rate of groundwater flow: 0.336 shallow / 4.8 deep (ft/day)

(15) Hydraulic gradient across site: 0.01 (ft/ft)

(16) Aquifer characteristics:

| | Values | Units | Method |
|---|---|---|---|
| Hydraulic conductivity | 10.08 to 144 | ft/day | Slug Tests |
| Storage coefficient | - | ft/ft | - |
| Aquifer thickness | 500 | ft | Literature |
| Effective soil porosity | 30 | % | Literature |
| Transmissivity | 72,000 | $Ft^2$/day | Slug Tests |

(17) Other remarks: None

## PROFESSIONAL CERTIFICATION

**Site Assessment Report Addendum**
**UST Site 2406, Outlying Landing Field Saufley**
**Naval Air Station Pensacola, Pensacola, Florida**

This Site Assessment Report Addendum was prepared under the direct supervision of the undersigned geologist using geologic and hydrogeologic principles standard to the profession at the time the report was prepared. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of additional information on the assessment described in this report. This report was developed specifically for the referenced site and should not be construed to apply to any other site.

_____
Gerald Walker, P.G.
Florida License No. PG

_____
Date

# APPENDIX D

# ANALYTICAL DATA VALIDATION REPORTS AND LABORATORY ANALYTICAL REPORTS

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 17, 2011** |
| **FROM:** | **MICHELLE ALLEN** | **COPIES:** | **DV FILE** |
| **SUBJECT:** | **ORGANIC DATA VALIDATION – VOC/PAH/TPH<br>CTO JM26, NAS PENSACOLA, SAUFLEY FIELD<br>SDG CTOJM26_001** | | |

**SAMPLES:** 13/Soil/VOC/PAH/TPH

| | | |
|---|---|---|
| 05-SS-001-0204 | 05-SS-002-0204 | 05-SS-003-0204 |
| 05-SS-004-0204 | 05-SS-005-0204 | 05-SS-005-0204D |
| 05-SS-006-0204 | 05-SS-007-0204 | 05-SS-008-0204 |
| 05-SS-009-0204 | 05-SS-010-0204 | 05-SS-011-0204 |
| 05-SS-012-0204 | | |

5/Aqueous /VOC

| | | |
|---|---|---|
| 05-MW-005 | 05-MW-005-D | Equip Blank 01 |
| Trip Blank 9485 | TripBlank #9482 | |

2/Aqueous /PAH/TPH

| | |
|---|---|
| 05-MW-005 | 05-MW-005-D |

## OVERVIEW

The sample set for CTO JM26 NAS Pensacola, Saufley Field SDG CTOJM26_001 consisted of thirteen (13) soil environmental samples, two (2) aqueous environmental samples, (2) trip blank samples, and one (1) equipment blank. All thirteen soil samples were analyzed as indicated above for select volatile organic compounds (VOC), polynuclear aromatic hydrocarbons (PAH), and total petroleum hydrocarbons (TPH). All five aqueous samples were analyzed for select VOC organic compounds. The two aqueous environmental samples were analyzed for polynuclear aromatic hydrocarbons (PAH) and total petroleum hydrocarbons (TPH). Two field duplicate pairs were associated with this Sample Delivery Group (SDG); 05-SS-005-0204/05-SS-005-0204D and 05-MW-005/05-MW-005-D.

The samples were collected by TetraTech NUS on March 22 and 23, 2011 and analyzed by Empirical Laboratories, LLC. All analyses were conducted in accordance with SW-846 Methods 8260B, 8270C, 8011, and Method FL-PRO analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- Data Completeness
- * Holding Times/Sample Preservation
- Initial/Continuing Calibrations
- Laboratory Method and Field Blank Results
- Field Duplicate Precision
- * Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified

Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

The text of this report is formatted to address only gross non-compliances resulting in the rejection of data and the elimination of false positives.

## VOC

The initial calibration performed on instrument MSVOA-5 on 03/7-17/11 and subsequent continuing calibrations had Relative Response Factors (RRFs) for acrolein below the 0.05 quality control limit. Samples 05-MW-005, 05-MW-005-D, Equip Blank 01 and Trip Blank 9485 were affected. The non-detected results reported for this compound in the affected samples were qualified as rejected, (UR).

The continuing calibration performed on 03/28/11 @ 20:21 had Percent Differences (%Ds) for acrylonitrile and chloroethane above the 20% quality control limit. Only non-detected results were reported for these compounds in the affected samples, 05-MW-005 and Trip Blank 9485, and these non-detects were qualified as estimated, (UJ).

## PAH

The following contaminant was detected in the laboratory method blank from batch #1C24017 at the following maximum concentration:

| Analyte | Maximum Conc. (µg/L) | Action Level (µg/L) |
|---|---|---|
| Benzo(a)anthracene[1] | 0.228 | 1.14 |

[1] Maximum concentration detected in the laboratory method blank affecting samples 05-MW-005 and 05-MW-005-D.

An action level of 5X the maximum contaminant level was used for benzo(a)anthracene to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The sample result below the action level in sample 05-MW-005 was qualified as non-detected, (U), due to method blank contamination.

## TPH

No issues were identified.

## NOTES

The volatile compound, chloroform, was detected in the equipment blank, Equip Blank 01.

Field duplicate imprecision was noted in the VOC fraction for the xylenes (total) and toluene. Total xylenes was detected below the Limit of Quantitation (LOQ) but above the Limit of Detection (LOD) in the field duplicate sample, 05-MW-005-D, but not in the environmental sample, 05-MW-005. Toluene was detected below the LOQ but above the LOD in both samples. No action was necessary for these volatile compounds because the difference between the results were not greater than 2X the LOQ.

Phenanthrene, fluoranthene, and TPH were detected in the environmental sample, 05-MW-005, but not in the field duplicate sample, 05-MW-005-D. No qualification was necessary in the field duplicate pair because

the difference between the results for these compounds did not exceed 2X the LOQ.

The sample Equip Blank 01 was not analyzed for PAH and TPH as indicated on the sample Chain of Custody (COC) dated 3/23/11. As stated in the laboratory's case narrative, there was an insufficient amount of sample to perform these analyses.

Trichlorofluoromethane was omitted from the laboratory's Form Is for samples 05-MW-005, 05-MW-005-D, Equip Blank 01, and Trip Blank 9485. The results for this compound were included in the Qualified Analytical Results in Appendix A.

Positive results reported above the LOD but below the LOQ were qualified as estimated, (J). Non-detected results were reported to the Detection Limit (DL).

## EXECUTIVE SUMMARY

**Laboratory Performance Issues:** Initial and associated continuing calibrations had RRFs for acrolein below the quality control limit. Continuing calibration %Ds were above the quality control limit in the VOC fraction. Benzo(a)anthracene was detected in a laboratory method blank. Trichlorofluoromethane was missing from the laboratory's Form Is.

**Other Factors Affecting Data Quality:** Chloroform was detected in the equipment blank. Field duplicate imprecision was noted in the aqueous field duplicate pair.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Michelle L. Allen
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

**Data Validation Qualifier Codes:**

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

| PROJ_NO: 02748 | NSAMPLE | 05-MW-005 | | | 05-MW-005-D | | | Equip Blank 01 | | | Trip Blank 9485 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103208-03 | | | 1103208-04 | | | 1103208-05 | | | 1103208-06 | | |
| FRACTION: OV | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1,1,1-TRICHLOROETHANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| 1,1,2,2-TETRACHLOROETHANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| 1,1,2-TRICHLOROETHANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| 1,1-DICHLOROETHANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| 1,1-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| 1,2,4-TRICHLOROBENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| 1,2-DIBROMOETHANE | | 0.00794 | U | | 0.00805 | U | | 0.000843 | U | | 0.25 | U | |
| 1,2-DICHLOROETHANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| 1,2-DICHLOROPROPANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| 2-CHLOROETHYL VINYL ETHER | | 1.25 | U | | 1.25 | U | | 1.25 | U | | 1.25 | U | |
| ACROLEIN | | 1.2 | UR | C | 1.2 | UR | C | 1.2 | UR | C | 1.2 | UR | C |
| ACRYLONITRILE | | 2.5 | UJ | C | 2.5 | UJ | C | 2.5 | UJ | C | 2.5 | UJ | C |
| BENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| BROMODICHLOROMETHANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| BROMOFORM | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| BROMOMETHANE | | 0.5 | U | | 0.5 | U | | 0.5 | U | | 0.5 | U | |
| CARBON TETRACHLORIDE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| CHLOROBENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| CHLORODIBROMOMETHANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| CHLOROETHANE | | 0.5 | UJ | C | 0.5 | UJ | C | 0.5 | UJ | C | 0.5 | UJ | C |
| CHLOROFORM | | 0.25 | U | | 0.25 | U | | 0.665 | J | P | 0.25 | U | |
| CHLOROMETHANE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| CIS-1,2-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| CIS-1,3-DICHLOROPROPENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| ETHYLBENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TETRACHLOROETHENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TOLUENE | | 0.328 | J | P | 0.468 | J | P | 0.25 | U | | 0.25 | U | |
| TOTAL XYLENES | | 0.75 | U | | 1.07 | J | P | 0.75 | U | | 0.75 | U | |
| TRANS-1,2-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TRANS-1,3-DICHLOROPROPENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TRICHLOROETHENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TRICHLOROFLUOROMETHANE | | 0.5 | U | | 0.5 | U | | 0.5 | U | | 0.5 | U | |
| VINYL CHLORIDE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |

| | | |
|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | TripBlank #9482 |
| **SDG: CTOJM26_001** | LAB_ID | 1103202-05 |
| **FRACTION: OV** | SAMP_DATE | 3/22/2011 |
| **MEDIA: WATER** | QC_TYPE | NM |
| | UNITS | UG/L |
| | PCT_SOLIDS | 0.0 |
| | DUP_OF | |

| PARAMETER | RESULT | VQL | QLCD |
|---|---|---|---|
| 1,1,1-TRICHLOROETHANE | | | |
| 1,1,2,2-TETRACHLOROETHANE | | | |
| 1,1,2-TRICHLOROETHANE | | | |
| 1,1-DICHLOROETHANE | | | |
| 1,1-DICHLOROETHENE | | | |
| 1,2,4-TRICHLOROBENZENE | | | |
| 1,2-DIBROMOETHANE | | | |
| 1,2-DICHLOROETHANE | | | |
| 1,2-DICHLOROPROPANE | | | |
| 2-CHLOROETHYL VINYL ETHER | | | |
| ACROLEIN | | | |
| ACRYLONITRILE | | | |
| BENZENE | 1 | U | |
| BROMODICHLOROMETHANE | | | |
| BROMOFORM | | | |
| BROMOMETHANE | | | |
| CARBON TETRACHLORIDE | | | |
| CHLOROBENZENE | | | |
| CHLORODIBROMOMETHANE | | | |
| CHLOROETHANE | | | |
| CHLOROFORM | | | |
| CHLOROMETHANE | | | |
| CIS-1,2-DICHLOROETHENE | | | |
| CIS-1,3-DICHLOROPROPENE | | | |
| ETHYLBENZENE | 1 | U | |
| METHYL TERT-BUTYL ETHER | 1 | U | |
| TETRACHLOROETHENE | | | |
| TOLUENE | 1 | U | |
| TOTAL XYLENES | 3 | U | |
| TRANS-1,2-DICHLOROETHENE | | | |
| TRANS-1,3-DICHLOROPROPENE | | | |
| TRICHLOROETHENE | | | |
| TRICHLOROFLUOROMETHANE | | | |
| VINYL CHLORIDE | | | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-001-0204 | | | 05-SS-002-0204 | | | 05-SS-003-0204 | | | 05-SS-004-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103202-01 | | | 1103202-02 | | | 1103202-03 | | | 1103202-04 | | |
| FRACTION: OV | SAMP_DATE | 3/22/2011 | | | 3/22/2011 | | | 3/22/2011 | | | 3/22/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.9 | | | 92.7 | | | 90.1 | | | 90.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.0014 | U | | 0.00106 | U | | 0.00118 | U | | 0.00148 | U | |
| ETHYLBENZENE | | 0.000843 | U | | 0.000637 | U | | 0.000709 | U | | 0.000891 | U | |
| METHYL TERT-BUTYL ETHER | | 0.0014 | U | | 0.00106 | U | | 0.00118 | U | | 0.00148 | U | |
| TOLUENE | | 0.000967 | U | | 0.000731 | U | | 0.000813 | U | | 0.00102 | U | |
| TOTAL XYLENES | | 0.00421 | U | | 0.00319 | U | | 0.00355 | U | | 0.00445 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-005-0204 | | | 05-SS-005-0204D | | | 05-SS-006-0204 | | | 05-SS-007-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103208-01 | | | 1103208-02 | | | 1103208-07 | | | 1103208-08 | | |
| FRACTION: OV | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 83.4 | | | 88.4 | | | 89.0 | | |
| | DUP_OF | | | | 05-SS-005-0204 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00143 | U | | 0.0015 | U | | 0.00149 | U | | 0.00131 | U | |
| ETHYLBENZENE | | 0.000855 | U | | 0.000903 | U | | 0.000895 | U | | 0.000788 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00143 | U | | 0.0015 | U | | 0.00149 | U | | 0.00131 | U | |
| TOLUENE | | 0.000981 | U | | 0.00103 | U | | 0.00103 | U | | 0.000903 | U | |
| TOTAL XYLENES | | 0.00428 | U | | 0.00451 | U | | 0.00447 | U | | 0.00394 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-008-0204 | | | 05-SS-009-0204 | | | 05-SS-010-0204 | | | 05-SS-011-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103208-09 | | | 1103208-10 | | | 1103208-11 | | | 1103208-12 | | |
| FRACTION: OV | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.3 | | | 89.3 | | | 92.7 | | | 92.6 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00141 | U | | 0.00138 | U | | 0.00136 | U | | 0.0013 | U | |
| ETHYLBENZENE | | 0.000848 | U | | 0.00083 | U | | 0.000816 | U | | 0.000777 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00141 | U | | 0.00138 | U | | 0.00136 | U | | 0.0013 | U | |
| TOLUENE | | 0.000972 | U | | 0.000952 | U | | 0.000935 | U | | 0.000891 | U | |
| TOTAL XYLENES | | 0.00424 | U | | 0.00415 | U | | 0.00408 | U | | 0.00389 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-012-0204 | | |
| **SDG: CTOJM26_001** | LAB_ID | 1103208-13 | | |
| **FRACTION: OV** | SAMP_DATE | 3/23/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| BENZENE | | 0.00142 | U | |
| ETHYLBENZENE | | 0.000855 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00142 | U | |
| TOLUENE | | 0.00098 | U | |
| TOTAL XYLENES | | 0.00427 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-MW-005 | | | 05-MW-005-D | | |
|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103208-03 | | | 1103208-04 | | |
| FRACTION: PAH | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | 05-MW-005 | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.158 | J | P | 0.17 | J | P |
| 2-METHYLNAPHTHALENE | | 0.323 | | | 0.325 | | |
| ACENAPHTHENE | | 0.049 | U | | 0.0588 | U | |
| ACENAPHTHYLENE | | 0.049 | U | | 0.0588 | U | |
| ANTHRACENE | | 0.049 | U | | 0.0588 | U | |
| BENZO(A)ANTHRACENE | | 0.217 | U | B | 0.0588 | U | |
| BENZO(A)PYRENE | | 0.049 | U | | 0.0588 | U | |
| BENZO(B)FLUORANTHENE | | 0.049 | U | | 0.0588 | U | |
| BENZO(G,H,I)PERYLENE | | 0.049 | U | | 0.0588 | U | |
| BENZO(K)FLUORANTHENE | | 0.049 | U | | 0.0588 | U | |
| CHRYSENE | | 0.049 | U | | 0.0588 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.049 | U | | 0.0588 | U | |
| FLUORANTHENE | | 0.059 | J | P | 0.0588 | U | |
| FLUORENE | | 0.049 | U | | 0.0588 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.049 | U | | 0.0588 | U | |
| NAPHTHALENE | | 0.677 | | | 0.748 | | |
| PHENANTHRENE | | 0.0812 | J | P | 0.0588 | U | |
| PYRENE | | 0.049 | U | | 0.0588 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-001-0204 | | | 05-SS-002-0204 | | | 05-SS-003-0204 | | | 05-SS-004-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103202-01 | | | 1103202-02 | | | 1103202-03 | | | 1103202-04 | | |
| FRACTION: PAH | SAMP_DATE | 3/22/2011 | | | 3/22/2011 | | | 3/22/2011 | | | 3/22/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.9 | | | 92.7 | | | 90.1 | | | 90.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| 2-METHYLNAPHTHALENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| ACENAPHTHENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| ACENAPHTHYLENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| ANTHRACENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| BENZO(A)ANTHRACENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| BENZO(A)PYRENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| BENZO(B)FLUORANTHENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| BENZO(K)FLUORANTHENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| CHRYSENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| FLUORANTHENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| FLUORENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| NAPHTHALENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| PHENANTHRENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |
| PYRENE | | 0.00174 | U | | 0.00176 | U | | 0.00178 | U | | 0.00179 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-005-0204 | | | 05-SS-005-0204D | | | 05-SS-006-0204 | | | 05-SS-007-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103208-01 | | | 1103208-02 | | | 1103208-07 | | | 1103208-08 | | |
| FRACTION: PAH | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 83.4 | | | 88.4 | | | 89.0 | | |
| | DUP_OF | | | | 05-MW-005 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| 2-METHYLNAPHTHALENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| ACENAPHTHENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| ACENAPHTHYLENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| ANTHRACENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| BENZO(A)ANTHRACENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| BENZO(A)PYRENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| BENZO(B)FLUORANTHENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| BENZO(K)FLUORANTHENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| CHRYSENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| FLUORANTHENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| FLUORENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| NAPHTHALENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| PHENANTHRENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |
| PYRENE | | 0.00183 | U | | 0.00191 | U | | 0.00184 | U | | 0.00183 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-008-0204 | | | 05-SS-009-0204 | | | 05-SS-010-0204 | | | 05-SS-011-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103208-09 | | | 1103208-10 | | | 1103208-11 | | | 1103208-12 | | |
| FRACTION: PAH | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.3 | | | 89.3 | | | 92.7 | | | 92.6 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| 2-METHYLNAPHTHALENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| ACENAPHTHENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| ACENAPHTHYLENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| ANTHRACENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| BENZO(A)ANTHRACENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| BENZO(A)PYRENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| BENZO(B)FLUORANTHENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| BENZO(K)FLUORANTHENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| CHRYSENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| FLUORANTHENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| FLUORENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| NAPHTHALENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |
| PHENANTHRENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00259 | J | P |
| PYRENE | | 0.00187 | U | | 0.00187 | U | | 0.0018 | U | | 0.00175 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-012-0204 | | |
| **SDG: CTOJM26_001** | LAB_ID | 1103208-13 | | |
| **FRACTION: PAH** | SAMP_DATE | 3/23/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00171 | U | |
| 2-METHYLNAPHTHALENE | | 0.00171 | U | |
| ACENAPHTHENE | | 0.00171 | U | |
| ACENAPHTHYLENE | | 0.00171 | U | |
| ANTHRACENE | | 0.00171 | U | |
| BENZO(A)ANTHRACENE | | 0.00171 | U | |
| BENZO(A)PYRENE | | 0.00171 | U | |
| BENZO(B)FLUORANTHENE | | 0.00171 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00171 | U | |
| BENZO(K)FLUORANTHENE | | 0.00171 | U | |
| CHRYSENE | | 0.00171 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00171 | U | |
| FLUORANTHENE | | 0.00171 | U | |
| FLUORENE | | 0.00171 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00171 | U | |
| NAPHTHALENE | | 0.00171 | U | |
| PHENANTHRENE | | 0.00171 | U | |
| PYRENE | | 0.00171 | U | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-005 | | | 05-MW-005-D | | |
| **SDG: CTOJM26_001** | LAB_ID | 1103208-03 | | | 1103208-04 | | |
| **FRACTION: PET** | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | | NM | | |
| | UNITS | MG/L | | | MG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | 05-MW-005 | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.317 | J | P | 0.167 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-001-0204 | | | 05-SS-002-0204 | | | 05-SS-003-0204 | | | 05-SS-004-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103202-01 | | | 1103202-02 | | | 1103202-03 | | | 1103202-04 | | |
| FRACTION: PET | SAMP_DATE | 3/22/2011 | | | 3/22/2011 | | | 3/22/2011 | | | 3/22/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.9 | | | 92.7 | | | 90.1 | | | 90.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.6 | U | | 11.4 | U | | 12.1 | U | | 11.9 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-005-0204 | | | 05-SS-005-0204D | | | 05-SS-006-0204 | | | 05-SS-007-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103208-01 | | | 1103208-02 | | | 1103208-07 | | | 1103208-08 | | |
| FRACTION: PET | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 83.4 | | | 88.4 | | | 89.0 | | |
| | DUP_OF | | | | 05-SS-005-0204 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12 | U | | 13 | U | | 12.1 | U | | 11.8 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-008-0204 | | | 05-SS-009-0204 | | | 05-SS-010-0204 | | | 05-SS-011-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_001 | LAB_ID | 1103208-09 | | | 1103208-10 | | | 1103208-11 | | | 1103208-12 | | |
| FRACTION: PET | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.3 | | | 89.3 | | | 92.7 | | | 92.6 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.4 | U | | 12 | U | | 11.9 | U | | 11.8 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-012-0204 | | |
| **SDG: CTOJM26_001** | LAB_ID | 1103208-13 | | |
| **FRACTION: PET** | SAMP_DATE | 3/23/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.5 | U | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-MW-005**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-03 | File ID: | 0320803.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/29/11 02:51 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C28016 Sequence: 1C08806 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | , X U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | , X U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | , N U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | N, Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | 0.328 | 0.250 | 0.500 | 1.00 | I |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 33.44 | 111 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.52 | 105 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 32.91 | 110 | 70 - 120 | |
| Toluene-d8 | 30 | 32.54 | 108 | 85-120 | |

5-18-11 JAI

# ANALYSIS DATA SHEET

**05-MW-005**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-03 | File ID: | 005F0201.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 21:35 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00794 | 0.0159 | 0.0238 | UN |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**05-MW-005-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-04 | File ID: | 0320804.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 15:49 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C28008 Sequence: 1C08802 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | 0.468 | 0.250 | 0.500 | 1.00 | I |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | 1.07 | 0.750 | 1.50 | 3.00 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.46 | 105 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.70 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 32.34 | 108 | 70 - 120 | |

# ANALYSIS DATA SHEET

**05-MW-005-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-04 | File ID: | 0320804.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 15:49 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C28008 Sequence: 1C08802 Calibration: 1078001 Instrument: MS-VOA5

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 30.49 | 102 | 85 - 120 | |

# ANALYSIS DATA SHEET

**05-MW-005-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-04 | File ID: | 008R0201.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 22:40 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00805 | 0.0161 | 0.0241 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**Equip Blank 01**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103208-05 | File ID: | 0320805.D |
| Sampled: | 03/23/11 07:20 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 11:17 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C28008 Sequence: 1C08802 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | 0.665 | 0.250 | 0.500 | 1.00 | I |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.74 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.53 | 102 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.75 | 102 | 70 - 120 | |

# ANALYSIS DATA SHEET

**Equip Blank 01**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103208-05 | File ID: | 009R0201.D |
| Sampled: | 03/23/11 07:20 | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 23:01 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00843 | 0.0169 | 0.0253 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**Trip Blank 9485**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103208-06 | File ID: | 0320806.D |
| Sampled: | 03/23/11 00:00 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 22:49 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C28016 Sequence: 1C08806 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | X, U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.18 | 101 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 29.13 | 97.1 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 29.95 | 99.8 | 70 - 120 | |

# ANALYSIS DATA SHEET

**Trip Blank 9485**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103208-06 | File ID: | 0320806.D |
| Sampled: | 03/23/11 00:00 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 22:49 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Batch: | 1C28016 | Sequence: | 1C08806 | Calibration: | 1078001 | Instrument: | MS-VOA5 |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 31.80 | 106 | 85 - 120 | |

# ANALYSIS DATA SHEET

**05-SS-001-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-01 | File ID: | 0320201.D |
| Sampled: | 03/22/11 11:25 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 12:33 |
| Solids: | 93.85 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00140 | 0.00281 | 0.00562 | U |
| 100-41-4 | Ethylbenzene | | 0.000843 | 0.00281 | 0.00562 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00140 | 0.00281 | 0.00562 | U |
| 108-88-3 | Toluene | | 0.000967 | 0.00281 | 0.00562 | U |
| 1330-20-7 | Xylenes (total) | | 0.00421 | 0.00843 | 0.0169 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03372 | 0.03430 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03372 | 0.03404 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03372 | 0.03089 | 91.6 | 75 - 140 | |
| Toluene-d8 | 0.03372 | 0.03563 | 106 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-002-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-02 | File ID: | 0320202.D |
| Sampled: | 03/22/11 14:05 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 12:57 |
| Solids: | 92.67 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00106 | 0.00212 | 0.00425 | U |
| 100-41-4 | Ethylbenzene | | 0.000637 | 0.00212 | 0.00425 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00106 | 0.00212 | 0.00425 | U |
| 108-88-3 | Toluene | | 0.000731 | 0.00212 | 0.00425 | U |
| 1330-20-7 | Xylenes (total) | | 0.00319 | 0.00637 | 0.0127 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.02549 | 0.02509 | 98.4 | 85 - 120 | |
| Dibromofluoromethane | 0.02549 | 0.02635 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.02549 | 0.02436 | 95.6 | 75 - 140 | |
| Toluene-d8 | 0.02549 | 0.02572 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-003-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-03 | File ID: | 0320203.D |
| Sampled: | 03/22/11 14:48 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 13:21 |
| Solids: | 90.10 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00118 | 0.00236 | 0.00473 | U |
| 100-41-4 | Ethylbenzene | | 0.000709 | 0.00236 | 0.00473 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00118 | 0.00236 | 0.00473 | U |
| 108-88-3 | Toluene | | 0.000813 | 0.00236 | 0.00473 | U |
| 1330-20-7 | Xylenes (total) | | 0.00355 | 0.00709 | 0.0142 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.02836 | 0.02899 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.02836 | 0.02935 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.02836 | 0.02875 | 101 | 75 - 140 | |
| Toluene-d8 | 0.02836 | 0.02891 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-004-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103202-04 | File ID: | 0320204.D |
| Sampled: | 03/22/11 15:33 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 13:45 |
| Solids: | 90.94 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00148 | 0.00297 | 0.00594 | U |
| 100-41-4 | Ethylbenzene | | 0.000891 | 0.00297 | 0.00594 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00148 | 0.00297 | 0.00594 | U |
| 108-88-3 | Toluene | | 0.00102 | 0.00297 | 0.00594 | U |
| 1330-20-7 | Xylenes (total) | | 0.00445 | 0.00891 | 0.0178 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03562 | 0.03504 | 98.4 | 85 - 120 | |
| Dibromofluoromethane | 0.03562 | 0.03745 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03562 | 0.03578 | 100 | 75 - 140 | |
| Toluene-d8 | 0.03562 | 0.03603 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-005-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-01 | File ID: | 0320801.D |
| Sampled: | 03/23/11 07:34 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 14:09 |
| Solids: | 91.14 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00143 | 0.00285 | 0.00570 | U |
| 100-41-4 | Ethylbenzene | | 0.000855 | 0.00285 | 0.00570 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00143 | 0.00285 | 0.00570 | U |
| 108-88-3 | Toluene | | 0.000981 | 0.00285 | 0.00570 | U |
| 1330-20-7 | Xylenes (total) | | 0.00428 | 0.00855 | 0.0171 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03422 | 0.03468 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03422 | 0.03475 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03422 | 0.03307 | 96.6 | 75 - 140 | |
| Toluene-d8 | 0.03422 | 0.03465 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-005-0204D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-02 | File ID: | 0320802.D |
| Sampled: | 03/23/11 07:34 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 14:33 |
| Solids: | 83.43 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00150 | 0.00301 | 0.00602 | U |
| 100-41-4 | Ethylbenzene | | 0.000903 | 0.00301 | 0.00602 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00150 | 0.00301 | 0.00602 | U |
| 108-88-3 | Toluene | | 0.00103 | 0.00301 | 0.00602 | U |
| 1330-20-7 | Xylenes (total) | | 0.00451 | 0.00903 | 0.0181 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03610 | 0.03574 | 99.0 | 85 - 120 | |
| Dibromofluoromethane | 0.03610 | 0.03342 | 92.6 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03610 | 0.03383 | 93.7 | 75 - 140 | |
| Toluene-d8 | 0.03610 | 0.03840 | 106 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-006-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103208-07 | File ID: | 0320807.D |
| Sampled: | 03/23/11 09:57 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 14:57 |
| Solids: | 88.42 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00149 | 0.00298 | 0.00597 | U |
| 100-41-4 | Ethylbenzene | | 0.000895 | 0.00298 | 0.00597 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00149 | 0.00298 | 0.00597 | U |
| 108-88-3 | Toluene | | 0.00103 | 0.00298 | 0.00597 | U |
| 1330-20-7 | Xylenes (total) | | 0.00447 | 0.00895 | 0.0179 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03579 | 0.03579 | 100 | 85 - 120 | |
| Dibromofluoromethane | 0.03579 | 0.03479 | 97.2 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03579 | 0.03232 | 90.3 | 75 - 140 | |
| Toluene-d8 | 0.03579 | 0.03896 | 109 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-007-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103208-08 | File ID: | 0320808.D |
| Sampled: | 03/23/11 10:27 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 15:21 |
| Solids: | 88.97 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00131 | 0.00263 | 0.00525 | U |
| 100-41-4 | Ethylbenzene | | 0.000788 | 0.00263 | 0.00525 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00131 | 0.00263 | 0.00525 | U |
| 108-88-3 | Toluene | | 0.000903 | 0.00263 | 0.00525 | U |
| 1330-20-7 | Xylenes (total) | | 0.00394 | 0.00788 | 0.0158 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03151 | 0.03142 | 99.7 | 85 - 120 | |
| Dibromofluoromethane | 0.03151 | 0.03046 | 96.7 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03151 | 0.02977 | 94.5 | 75 - 140 | |
| Toluene-d8 | 0.03151 | 0.03357 | 107 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-008-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-09 | File ID: | 0320809.D |
| Sampled: | 03/23/11 11:20 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 15:45 |
| Solids: | 88.30 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00141 | 0.00283 | 0.00565 | U |
| 100-41-4 | Ethylbenzene | | 0.000848 | 0.00283 | 0.00565 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00141 | 0.00283 | 0.00565 | U |
| 108-88-3 | Toluene | | 0.000972 | 0.00283 | 0.00565 | U |
| 1330-20-7 | Xylenes (total) | | 0.00424 | 0.00848 | 0.0170 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03391 | 0.03492 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03391 | 0.03459 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03391 | 0.03508 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03391 | 0.03509 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-009-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-10 | File ID: | 0320810.D |
| Sampled: | 03/23/11 12:37 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 16:09 |
| Solids: | 89.29 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00138 | 0.00277 | 0.00553 | U |
| 100-41-4 | Ethylbenzene | | 0.000830 | 0.00277 | 0.00553 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00138 | 0.00277 | 0.00553 | U |
| 108-88-3 | Toluene | | 0.000952 | 0.00277 | 0.00553 | U |
| 1330-20-7 | Xylenes (total) | | 0.00415 | 0.00830 | 0.0166 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03320 | 0.03282 | 98.9 | 85 - 120 | |
| Dibromofluoromethane | 0.03320 | 0.03215 | 96.8 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03320 | 0.02971 | 89.5 | 75 - 140 | |
| Toluene-d8 | 0.03320 | 0.03507 | 106 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-010-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-11 | File ID: | 0320811.D |
| Sampled: | 03/23/11 13:37 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 16:33 |
| Solids: | 92.68 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00136 | 0.00272 | 0.00544 | U |
| 100-41-4 | Ethylbenzene | | 0.000816 | 0.00272 | 0.00544 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00136 | 0.00272 | 0.00544 | U |
| 108-88-3 | Toluene | | 0.000935 | 0.00272 | 0.00544 | U |
| 1330-20-7 | Xylenes (total) | | 0.00408 | 0.00816 | 0.0163 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03263 | 0.03193 | 97.8 | 85 - 120 | |
| Dibromofluoromethane | 0.03263 | 0.03305 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03263 | 0.03229 | 98.9 | 75 - 140 | |
| Toluene-d8 | 0.03263 | 0.03277 | 100 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-011-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-12 | File ID: | 0320812.D |
| Sampled: | 03/23/11 14:15 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 16:57 |
| Solids: | 92.61 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00130 | 0.00259 | 0.00518 | U |
| 100-41-4 | Ethylbenzene | | 0.000777 | 0.00259 | 0.00518 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00130 | 0.00259 | 0.00518 | U |
| 108-88-3 | Toluene | | 0.000891 | 0.00259 | 0.00518 | U |
| 1330-20-7 | Xylenes (total) | | 0.00389 | 0.00777 | 0.0155 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03109 | 0.03119 | 100 | 85 - 120 | |
| Dibromofluoromethane | 0.03109 | 0.03176 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03109 | 0.03228 | 104 | 75 - 140 | |
| Toluene-d8 | 0.03109 | 0.03115 | 100 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-012-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-13 | File ID: | 0320813.D |
| Sampled: | 03/23/11 15:00 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 17:21 |
| Solids: | 93.13 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C28001 Sequence: 1C08801 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00142 | 0.00285 | 0.00570 | U |
| 100-41-4 | Ethylbenzene | | 0.000855 | 0.00285 | 0.00570 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00142 | 0.00285 | 0.00570 | U |
| 108-88-3 | Toluene | | 0.000980 | 0.00285 | 0.00570 | U |
| 1330-20-7 | Xylenes (total) | | 0.00427 | 0.00855 | 0.0171 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03419 | 0.03406 | 99.6 | 85 - 120 | |
| Dibromofluoromethane | 0.03419 | 0.03511 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03419 | 0.03136 | 91.7 | 75 - 140 | |
| Toluene-d8 | 0.03419 | 0.03514 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-MW-005**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Ground Water | Laboratory ID: | 1103208-03 | File ID: | 0320803.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/29/11 02:51 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C28016 Sequence: 1C08806 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | , X U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | , X U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | , N U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | N, Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | 0.328 | 0.250 | 0.500 | 1.00 | I |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 33.44 | 111 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.52 | 105 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 32.91 | 110 | 70 - 120 | |
| Toluene-d8 | 30.00 | 32.54 | 108 | 85 - 120 | |

# ANALYSIS DATA SHEET

**05-MW-005-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-04 | File ID: | 0320804.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 15:49 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C28008 Sequence: 1C08802 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | 0.468 | 0.250 | 0.500 | 1.00 | I |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | 1.07 | 0.750 | 1.50 | 3.00 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.46 | 105 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.70 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 32.34 | 108 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.49 | 102 | 85 - 120 | |

# ANALYSIS DATA SHEET

05-SS-001-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-01 | File ID: | 0320201.D |
| Sampled: | 03/22/11 11:25 | Prepared: | 03/24/11 11:55 | Analyzed: | 03/25/11 17:10 |
| Solids: | 93.85 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C23013 Sequence: 1C08703 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00174 | 0.00348 | 0.00697 | U |
| 208-96-8 | Acenaphthylene | | 0.00174 | 0.00348 | 0.00697 | U |
| 120-12-7 | Anthracene | | 0.00174 | 0.00348 | 0.00697 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00174 | 0.00348 | 0.00697 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00174 | 0.00348 | 0.00697 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00174 | 0.00348 | 0.00697 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00174 | 0.00348 | 0.00697 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00174 | 0.00348 | 0.00697 | U |
| 218-01-9 | Chrysene | | 0.00174 | 0.00348 | 0.00697 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00174 | 0.00348 | 0.00697 | U |
| 206-44-0 | Fluoranthene | | 0.00174 | 0.00348 | 0.00697 | U |
| 86-73-7 | Fluorene | | 0.00174 | 0.00348 | 0.00697 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00174 | 0.00348 | 0.00697 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00174 | 0.00348 | 0.00697 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00174 | 0.00348 | 0.00697 | U |
| 91-20-3 | Naphthalene | | 0.00174 | 0.00348 | 0.00697 | U |
| 85-01-8 | Phenanthrene | | 0.00174 | 0.00348 | 0.00697 | U |
| 129-00-0 | Pyrene | | 0.00174 | 0.00348 | 0.00697 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.482 | 3.083 | 88.5 | 14 - 129 | |
| Terphenyl-d14 | 3.482 | 3.409 | 97.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-002-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-02 | File ID: | 0320202.D |
| Sampled: | 03/22/11 14:05 | Prepared: | 03/24/11 11:55 | Analyzed: | 03/25/11 17:37 |
| Solids: | 92.67 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C23013 Sequence: 1C08703 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00176 | 0.00350 | 0.00701 | U |
| 208-96-8 | Acenaphthylene | | 0.00176 | 0.00350 | 0.00701 | U |
| 120-12-7 | Anthracene | | 0.00176 | 0.00350 | 0.00701 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00176 | 0.00350 | 0.00701 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00176 | 0.00350 | 0.00701 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00176 | 0.00350 | 0.00701 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00176 | 0.00350 | 0.00701 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00176 | 0.00350 | 0.00701 | U |
| 218-01-9 | Chrysene | | 0.00176 | 0.00350 | 0.00701 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00176 | 0.00350 | 0.00701 | U |
| 206-44-0 | Fluoranthene | | 0.00176 | 0.00350 | 0.00701 | U |
| 86-73-7 | Fluorene | | 0.00176 | 0.00350 | 0.00701 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00176 | 0.00350 | 0.00701 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00176 | 0.00350 | 0.00701 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00176 | 0.00350 | 0.00701 | U |
| 91-20-3 | Naphthalene | | 0.00176 | 0.00350 | 0.00701 | U |
| 85-01-8 | Phenanthrene | | 0.00176 | 0.00350 | 0.00701 | U |
| 129-00-0 | Pyrene | | 0.00176 | 0.00350 | 0.00701 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.504 | 2.935 | 83.8 | 14 - 129 | |
| Terphenyl-d14 | 3.504 | 3.035 | 86.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-003-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-03 | File ID: | 0320203.D |
| Sampled: | 03/22/11 14:48 | Prepared: | 03/24/11 11:55 | Analyzed: | 03/25/11 18:04 |
| Solids: | 90.10 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C23013 Sequence: 1C08703 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00178 | 0.00355 | 0.00712 | U |
| 208-96-8 | Acenaphthylene | | 0.00178 | 0.00355 | 0.00712 | U |
| 120-12-7 | Anthracene | | 0.00178 | 0.00355 | 0.00712 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00178 | 0.00355 | 0.00712 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00178 | 0.00355 | 0.00712 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00178 | 0.00355 | 0.00712 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00178 | 0.00355 | 0.00712 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00178 | 0.00355 | 0.00712 | U |
| 218-01-9 | Chrysene | | 0.00178 | 0.00355 | 0.00712 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00178 | 0.00355 | 0.00712 | U |
| 206-44-0 | Fluoranthene | | 0.00178 | 0.00355 | 0.00712 | U |
| 86-73-7 | Fluorene | | 0.00178 | 0.00355 | 0.00712 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00178 | 0.00355 | 0.00712 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00178 | 0.00355 | 0.00712 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00178 | 0.00355 | 0.00712 | U |
| 91-20-3 | Naphthalene | | 0.00178 | 0.00355 | 0.00712 | U |
| 85-01-8 | Phenanthrene | | 0.00178 | 0.00355 | 0.00712 | U |
| 129-00-0 | Pyrene | | 0.00178 | 0.00355 | 0.00712 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.557 | 3.172 | 89.2 | 14 - 129 | |
| Terphenyl-d14 | 3.557 | 3.127 | 87.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-004-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-04 | File ID: | 0320204.D |
| Sampled: | 03/22/11 15:33 | Prepared: | 03/24/11 11:55 | Analyzed: | 03/25/11 18:31 |
| Solids: | 90.94 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C23013 Sequence: 1C08703 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00357 | 0.00714 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00357 | 0.00714 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00357 | 0.00714 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00179 | 0.00357 | 0.00714 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00179 | 0.00357 | 0.00714 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00179 | 0.00357 | 0.00714 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00179 | 0.00357 | 0.00714 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00179 | 0.00357 | 0.00714 | U |
| 218-01-9 | Chrysene | | 0.00179 | 0.00357 | 0.00714 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00357 | 0.00714 | U |
| 206-44-0 | Fluoranthene | | 0.00179 | 0.00357 | 0.00714 | U |
| 86-73-7 | Fluorene | | 0.00179 | 0.00357 | 0.00714 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00179 | 0.00357 | 0.00714 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00357 | 0.00714 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00357 | 0.00714 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00357 | 0.00714 | U |
| 85-01-8 | Phenanthrene | | 0.00179 | 0.00357 | 0.00714 | U |
| 129-00-0 | Pyrene | | 0.00179 | 0.00357 | 0.00714 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.570 | 2.556 | 71.6 | 14 - 129 | |
| Terphenyl-d14 | 3.570 | 3.074 | 86.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-005-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-01 | File ID: | 0320801.D |
| Sampled: | 03/23/11 07:34 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 14:37 |
| Solids: | 91.14 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00183 | 0.00365 | 0.00732 | U |
| 208-96-8 | Acenaphthylene | | 0.00183 | 0.00365 | 0.00732 | U |
| 120-12-7 | Anthracene | | 0.00183 | 0.00365 | 0.00732 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00183 | 0.00365 | 0.00732 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00183 | 0.00365 | 0.00732 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00183 | 0.00365 | 0.00732 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00183 | 0.00365 | 0.00732 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00183 | 0.00365 | 0.00732 | U |
| 218-01-9 | Chrysene | | 0.00183 | 0.00365 | 0.00732 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00183 | 0.00365 | 0.00732 | U |
| 206-44-0 | Fluoranthene | | 0.00183 | 0.00365 | 0.00732 | U |
| 86-73-7 | Fluorene | | 0.00183 | 0.00365 | 0.00732 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00183 | 0.00365 | 0.00732 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00183 | 0.00365 | 0.00732 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00183 | 0.00365 | 0.00732 | U |
| 91-20-3 | Naphthalene | | 0.00183 | 0.00365 | 0.00732 | U |
| 85-01-8 | Phenanthrene | | 0.00183 | 0.00365 | 0.00732 | U |
| 129-00-0 | Pyrene | | 0.00183 | 0.00365 | 0.00732 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.658 | 3.418 | 93.4 | 14 - 129 | |
| Terphenyl-d14 | 3.658 | 3.468 | 94.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-005-0204D

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-02 | File ID: | 0320802.D |
| Sampled: | 03/23/11 07:34 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 15:59 |
| Solids: | 83.43 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00191 | 0.00381 | 0.00764 | U |
| 208-96-8 | Acenaphthylene | | 0.00191 | 0.00381 | 0.00764 | U |
| 120-12-7 | Anthracene | | 0.00191 | 0.00381 | 0.00764 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00191 | 0.00381 | 0.00764 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00191 | 0.00381 | 0.00764 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00191 | 0.00381 | 0.00764 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00191 | 0.00381 | 0.00764 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00191 | 0.00381 | 0.00764 | U |
| 218-01-9 | Chrysene | | 0.00191 | 0.00381 | 0.00764 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00191 | 0.00381 | 0.00764 | U |
| 206-44-0 | Fluoranthene | | 0.00191 | 0.00381 | 0.00764 | U |
| 86-73-7 | Fluorene | | 0.00191 | 0.00381 | 0.00764 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00191 | 0.00381 | 0.00764 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00191 | 0.00381 | 0.00764 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00191 | 0.00381 | 0.00764 | U |
| 91-20-3 | Naphthalene | | 0.00191 | 0.00381 | 0.00764 | U |
| 85-01-8 | Phenanthrene | | 0.00191 | 0.00381 | 0.00764 | U |
| 129-00-0 | Pyrene | | 0.00191 | 0.00381 | 0.00764 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.817 | 3.421 | 89.6 | 14 - 129 | |
| Terphenyl-d14 | 3.817 | 3.654 | 95.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-006-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103208-07 | File ID: | 0320807.D |
| Sampled: | 03/23/11 09:57 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 16:27 |
| Solids: | 88.42 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00184 | 0.00367 | 0.00735 | U |
| 208-96-8 | Acenaphthylene | | 0.00184 | 0.00367 | 0.00735 | U |
| 120-12-7 | Anthracene | | 0.00184 | 0.00367 | 0.00735 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00184 | 0.00367 | 0.00735 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00184 | 0.00367 | 0.00735 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00184 | 0.00367 | 0.00735 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00184 | 0.00367 | 0.00735 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00184 | 0.00367 | 0.00735 | U |
| 218-01-9 | Chrysene | | 0.00184 | 0.00367 | 0.00735 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00184 | 0.00367 | 0.00735 | U |
| 206-44-0 | Fluoranthene | | 0.00184 | 0.00367 | 0.00735 | U |
| 86-73-7 | Fluorene | | 0.00184 | 0.00367 | 0.00735 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00184 | 0.00367 | 0.00735 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00184 | 0.00367 | 0.00735 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00184 | 0.00367 | 0.00735 | U |
| 91-20-3 | Naphthalene | | 0.00184 | 0.00367 | 0.00735 | U |
| 85-01-8 | Phenanthrene | | 0.00184 | 0.00367 | 0.00735 | U |
| 129-00-0 | Pyrene | | 0.00184 | 0.00367 | 0.00735 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.672 | 3.207 | 87.3 | 14 - 129 | |
| Terphenyl-d14 | 3.672 | 3.486 | 94.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-007-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103208-08 | File ID: | 0320808.D |
| Sampled: | 03/23/11 10:27 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 16:54 |
| Solids: | 88.97 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00183 | 0.00365 | 0.00730 | U |
| 208-96-8 | Acenaphthylene | | 0.00183 | 0.00365 | 0.00730 | U |
| 120-12-7 | Anthracene | | 0.00183 | 0.00365 | 0.00730 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00183 | 0.00365 | 0.00730 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00183 | 0.00365 | 0.00730 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00183 | 0.00365 | 0.00730 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00183 | 0.00365 | 0.00730 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00183 | 0.00365 | 0.00730 | U |
| 218-01-9 | Chrysene | | 0.00183 | 0.00365 | 0.00730 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00183 | 0.00365 | 0.00730 | U |
| 206-44-0 | Fluoranthene | | 0.00183 | 0.00365 | 0.00730 | U |
| 86-73-7 | Fluorene | | 0.00183 | 0.00365 | 0.00730 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00183 | 0.00365 | 0.00730 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00183 | 0.00365 | 0.00730 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00183 | 0.00365 | 0.00730 | U |
| 91-20-3 | Naphthalene | | 0.00183 | 0.00365 | 0.00730 | U |
| 85-01-8 | Phenanthrene | | 0.00183 | 0.00365 | 0.00730 | U |
| 129-00-0 | Pyrene | | 0.00183 | 0.00365 | 0.00730 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.649 | 3.085 | 84.5 | 14 - 129 | |
| Terphenyl-d14 | 3.649 | 3.594 | 98.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-008-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-09 | File ID: | 0320809.D |
| Sampled: | 03/23/11 11:20 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 17:22 |
| Solids: | 88.30 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00187 | 0.00372 | 0.00745 | U |
| 208-96-8 | Acenaphthylene | | 0.00187 | 0.00372 | 0.00745 | U |
| 120-12-7 | Anthracene | | 0.00187 | 0.00372 | 0.00745 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00187 | 0.00372 | 0.00745 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00187 | 0.00372 | 0.00745 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00187 | 0.00372 | 0.00745 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00187 | 0.00372 | 0.00745 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00187 | 0.00372 | 0.00745 | U |
| 218-01-9 | Chrysene | | 0.00187 | 0.00372 | 0.00745 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00187 | 0.00372 | 0.00745 | U |
| 206-44-0 | Fluoranthene | | 0.00187 | 0.00372 | 0.00745 | U |
| 86-73-7 | Fluorene | | 0.00187 | 0.00372 | 0.00745 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00187 | 0.00372 | 0.00745 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00187 | 0.00372 | 0.00745 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00187 | 0.00372 | 0.00745 | U |
| 91-20-3 | Naphthalene | | 0.00187 | 0.00372 | 0.00745 | U |
| 85-01-8 | Phenanthrene | | 0.00187 | 0.00372 | 0.00745 | U |
| 129-00-0 | Pyrene | | 0.00187 | 0.00372 | 0.00745 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.725 | 3.092 | 83.0 | 14 - 129 | |
| Terphenyl-d14 | 3.725 | 3.544 | 95.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-009-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103208-10 | File ID: | 0320810.D |
| Sampled: | 03/23/11 12:37 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 17:49 |
| Solids: | 89.29 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00187 | 0.00373 | 0.00747 | U |
| 208-96-8 | Acenaphthylene | | 0.00187 | 0.00373 | 0.00747 | U |
| 120-12-7 | Anthracene | | 0.00187 | 0.00373 | 0.00747 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00187 | 0.00373 | 0.00747 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00187 | 0.00373 | 0.00747 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00187 | 0.00373 | 0.00747 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00187 | 0.00373 | 0.00747 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00187 | 0.00373 | 0.00747 | U |
| 218-01-9 | Chrysene | | 0.00187 | 0.00373 | 0.00747 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00187 | 0.00373 | 0.00747 | U |
| 206-44-0 | Fluoranthene | | 0.00187 | 0.00373 | 0.00747 | U |
| 86-73-7 | Fluorene | | 0.00187 | 0.00373 | 0.00747 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00187 | 0.00373 | 0.00747 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00187 | 0.00373 | 0.00747 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00187 | 0.00373 | 0.00747 | U |
| 91-20-3 | Naphthalene | | 0.00187 | 0.00373 | 0.00747 | U |
| 85-01-8 | Phenanthrene | | 0.00187 | 0.00373 | 0.00747 | U |
| 129-00-0 | Pyrene | | 0.00187 | 0.00373 | 0.00747 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.733 | 3.228 | 86.5 | 14 - 129 | |
| Terphenyl-d14 | 3.733 | 3.471 | 93.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-010-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103208-11 | File ID: | 0320811.D |
| Sampled: | 03/23/11 13:37 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 18:16 |
| Solids: | 92.68 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00180 | 0.00359 | 0.00720 | U |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00359 | 0.00720 | U |
| 120-12-7 | Anthracene | | 0.00180 | 0.00359 | 0.00720 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00180 | 0.00359 | 0.00720 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00180 | 0.00359 | 0.00720 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00180 | 0.00359 | 0.00720 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00180 | 0.00359 | 0.00720 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00180 | 0.00359 | 0.00720 | U |
| 218-01-9 | Chrysene | | 0.00180 | 0.00359 | 0.00720 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00180 | 0.00359 | 0.00720 | U |
| 206-44-0 | Fluoranthene | | 0.00180 | 0.00359 | 0.00720 | U |
| 86-73-7 | Fluorene | | 0.00180 | 0.00359 | 0.00720 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00180 | 0.00359 | 0.00720 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00180 | 0.00359 | 0.00720 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00180 | 0.00359 | 0.00720 | U |
| 91-20-3 | Naphthalene | | 0.00180 | 0.00359 | 0.00720 | U |
| 85-01-8 | Phenanthrene | | 0.00180 | 0.00359 | 0.00720 | U |
| 129-00-0 | Pyrene | | 0.00180 | 0.00359 | 0.00720 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.596 | 3.181 | 88.5 | 14 - 129 | |
| Terphenyl-d14 | 3.596 | 3.297 | 91.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-011-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-12 | File ID: | 0320812.D |
| Sampled: | 03/23/11 14:15 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 18:43 |
| Solids: | 92.61 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00348 | 0.00697 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00348 | 0.00697 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00348 | 0.00697 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00348 | 0.00697 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00348 | 0.00697 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00348 | 0.00697 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00348 | 0.00697 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00348 | 0.00697 | U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00348 | 0.00697 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00348 | 0.00697 | U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00348 | 0.00697 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00348 | 0.00697 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00175 | 0.00348 | 0.00697 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00348 | 0.00697 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00348 | 0.00697 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00348 | 0.00697 | U |
| 85-01-8 | Phenanthrene | 0.00259 | 0.00175 | 0.00348 | 0.00697 | I |
| 129-00-0 | Pyrene | | 0.00175 | 0.00348 | 0.00697 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.483 | 3.036 | 87.2 | 14 - 129 | |
| Terphenyl-d14 | 3.483 | 3.334 | 95.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-012-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-13 | File ID: | 0320813.D |
| Sampled: | 03/23/11 15:00 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 19:11 |
| Solids: | 93.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00171 | 0.00342 | 0.00684 | U |
| 208-96-8 | Acenaphthylene | | 0.00171 | 0.00342 | 0.00684 | U |
| 120-12-7 | Anthracene | | 0.00171 | 0.00342 | 0.00684 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00171 | 0.00342 | 0.00684 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00171 | 0.00342 | 0.00684 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00171 | 0.00342 | 0.00684 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00171 | 0.00342 | 0.00684 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00171 | 0.00342 | 0.00684 | U |
| 218-01-9 | Chrysene | | 0.00171 | 0.00342 | 0.00684 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00171 | 0.00342 | 0.00684 | U |
| 206-44-0 | Fluoranthene | | 0.00171 | 0.00342 | 0.00684 | U |
| 86-73-7 | Fluorene | | 0.00171 | 0.00342 | 0.00684 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00171 | 0.00342 | 0.00684 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00171 | 0.00342 | 0.00684 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00171 | 0.00342 | 0.00684 | U |
| 91-20-3 | Naphthalene | | 0.00171 | 0.00342 | 0.00684 | U |
| 85-01-8 | Phenanthrene | | 0.00171 | 0.00342 | 0.00684 | U |
| 129-00-0 | Pyrene | | 0.00171 | 0.00342 | 0.00684 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.419 | 2.943 | 86.1 | 14 - 129 | |
| Terphenyl-d14 | 3.419 | 3.360 | 98.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-MW-005**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-03 | File ID: | 005F0501.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 03/29/11 13:53 | Analyzed: | 03/30/11 15:10 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C28022 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 0.317 | 0.163 | 0.327 | 0.654 | 1 |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04808 | 0.05456 | 113 | 50 - 150 | |
| o-Terphenyl | 0.04808 | 0.04846 | 101 | 82 - 142 | |

# ANALYSIS DATA SHEET

**05-MW-005-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-04 | File ID: | 008F0801.D |
| Sampled: | 03/23/11 08:15 | Prepared: | 03/29/11 13:53 | Analyzed: | 03/30/11 17:17 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C28022 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.167 | 0.333 | 0.667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04902 | 0.05375 | 110 | 50 - 150 | |
| o-Terphenyl | 0.04902 | 0.04168 | 85.0 | 82 - 142 | |

# ANALYSIS DATA SHEET

05-SS-001-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-01 | File ID: | 014F1401.D |
| Sampled: | 03/22/11 11:25 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/30/11 21:29 |
| Solids: | 93.85 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.6 | 23.3 | 46.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.528 | 3.142 | 89.0 | 50 - 150 | |
| o-Terphenyl | 3.528 | 3.300 | 93.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-002-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-02 | File ID: | 017F1701.D |
| Sampled: | 03/22/11 14:05 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/30/11 23:36 |
| Solids: | 92.67 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.8 | 45.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.459 | 3.495 | 101 | 50 - 150 | |
| o-Terphenyl | 3.459 | 3.389 | 98.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-003-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-03 | File ID: | 018F1801.D |
| Sampled: | 03/22/11 14:48 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 00:18 |
| Solids: | 90.10 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.1 | 24.3 | 48.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.675 | 3.621 | 98.5 | 50 - 150 | |
| o-Terphenyl | 3.675 | 3.518 | 95.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-004-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103202-04 | File ID: | 019F1901.D |
| Sampled: | 03/22/11 15:33 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 01:01 |
| Solids: | 90.94 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.9 | 47.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.617 | 3.372 | 93.2 | 50 - 150 | |
| o-Terphenyl | 3.617 | 3.441 | 95.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-005-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-01 | File ID: | 020F2001.D |
| Sampled: | 03/23/11 07:34 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 01:43 |
| Solids: | 91.14 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.0 | 24.0 | 48.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.633 | 3.822 | 105 | 50 - 150 | |
| o-Terphenyl | 3.633 | 3.738 | 103 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-005-0204D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-02 | File ID: | 021F2101.D |
| Sampled: | 03/23/11 07:34 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 02:26 |
| Solids: | 83.43 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 13.0 | 26.0 | 52.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.943 | 3.645 | 92.5 | 50 - 150 | |
| o-Terphenyl | 3.943 | 3.727 | 94.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-006-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-07 | File ID: | 022F2201.D |
| Sampled: | 03/23/11 09:57 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 03:08 |
| Solids: | 88.42 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.1 | 24.2 | 48.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.672 | 3.812 | 104 | 50 - 150 | |
| o-Terphenyl | 3.672 | 3.398 | 92.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-007-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-08 | File ID: | 023F2301.D |
| Sampled: | 03/23/11 10:27 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 03:50 |
| Solids: | 88.97 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.6 | 47.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.580 | 3.613 | 101 | 50 - 150 | |
| o-Terphenyl | 3.580 | 3.353 | 93.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-008-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-09 | File ID: | 024F2401.D |
| Sampled: | 03/23/11 11:20 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 04:33 |
| Solids: | 88.30 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.4 | 24.8 | 49.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.750 | 3.850 | 103 | 50 - 150 | |
| o-Terphenyl | 3.750 | 3.608 | 96.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-009-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-10 | File ID: | 025F2501.D |
| Sampled: | 03/23/11 12:37 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 05:15 |
| Solids: | 89.29 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.0 | 24.0 | 48.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.636 | 3.659 | 101 | 50 - 150 | |
| o-Terphenyl | 3.636 | 3.539 | 97.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-010-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-11 | File ID: | 027F2701.D |
| Sampled: | 03/23/11 13:37 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 06:39 |
| Solids: | 92.68 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.7 | 47.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.596 | 4.159 | 116 | 50 - 150 | |
| o-Terphenyl | 3.596 | 3.744 | 104 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-011-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-12 | File ID: | 028F2801.D |
| Sampled: | 03/23/11 14:15 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 07:22 |
| Solids: | 92.61 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.6 | 47.2 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.575 | 3.627 | 101 | 50 - 150 | |
| o-Terphenyl | 3.575 | 3.457 | 96.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-012-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103208-13 | File ID: | 029F2901.D |
| Sampled: | 03/23/11 15:00 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 08:04 |
| Solids: | 93.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.0 | 46.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.486 | 3.728 | 107 | 50 - 150 | |
| o-Terphenyl | 3.486 | 3.424 | 98.2 | 35 - 140 | |

# APPENDIX C

## SUPPORT DOCUMENTATION

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 2772 PAGE 1 OF 1

| | | | |
|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Sanfley Field | PROJECT MANAGER Geoff Pope | PHONE NUMBER |
| LABORATORY NAME AND CONTACT: Brian Richard/EMPIRICAL | | | |
| SAMPLERS (SIGNATURE) MBrock | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850 294 2830 |
| ADDRESS 621 Mainstream Dr. STE 270 | | | |
| CARRIER/WAYBILL NUMBER 8748 4755 6055 | | | CITY, STATE Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G G
PRESERVATIVE USED: HCl methanol / none / none

| DATE YEAR 2011 | 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 | BTEX, MTBE | PAH | TRPH | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/22 | 1125 | 05-SS-001-0204 | SB001 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | 1103202-01 |
| 3/22 | 1405 | 05-SS-002-0204 | SB002 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -02 |
| 3/22 | 1448 | 05-SS-003-0204 | SB003 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -03 |
| 3/22 | 1533 | 05-SS-004-0204 | SB004 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -04 |
| — | | Trip Blank #9482 provided by lab | — | — | — | QC | G | 2 | ✓ | — | — | | | | | | -05 |

Inv. 38
WHY

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY MBrock | DATE 3.22.11 | TIME 1610 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY 12°C | DATE 3-23-11 | TIME 08:45 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

CTOJM26_001 Summ Package

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TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2773 | PAGE 1 OF 2

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Sanfley Field | Geoff Pope | 850 385 9899 | EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M Brock | | M. Brock | 850 294 2830 | 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 8748 4755 6066 | | Nashville TN 37228 |

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

| | DATE YEAR 2011 | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) tubing @ 50' | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, QC, ETC.) | COLLECTION METHOD GRAB (G) COMP (C) | No. OF CONTAINERS | BTEX MTBE (Soil) | PAH (Soil) | TRPH (Soil) | VOCs (H2O) | PAH (H2O) | TRPH (H2O) | EDB (H2O) | Total Pb (H2O) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | CONTAINER TYPE PLASTIC (P) or GLASS (G) | G | AG | AG | G | AG | AG | AG | P |
| | | | | | | | | | | PRESERVATIVE USED | H2O meth | none | none | HCL | none | HCL | HCL | HNO3 |
| -01 | 3/23 | 0734 | 05-SS-005-0204 | SB005 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | 3J0+1M |
| -02 | 3/23 | 0734 | 05-SS-005-0204 D | SB005 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| -03 | 3/23 | 0815 | 05-MW-005 | SB005 | 50' | - | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | [redacted] | ✓ | 4JHg+1CNI+2HF2HHg |
| -04 | 3/23 | 0815 | 05-MW-005-D | SB005 | | - | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | [redacted] | ✓ | |
| 03 | 3/23 | 0815 | 05-MW-005-MS | SB005 | | - | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | [redacted] | ✓ | |
| ↓ | 3/23 | 0815 | 05-MW-005-MSD | SB005 | ↓ | - | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | [redacted] | ✓ | |
| 05 | 3/23 | 0720 | Equip Blank 01 | SB005 | ↓ | — | QC | G | 9 | — | — | — | ✓ | ✓ | [redacted] | [redacted] | ✓ | 4JHg+1CNI |
| -06 | | 0957 | Trip Blank 9485 | — | — | — | QC | G | 2 | ✓ | — | — | ✓ | — | — | — | — | 2JHg |
| 07 | 3/23 | 0957 | 05-SS-006-0204 | SB006 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| -08 | 3/23 | 1027 | 05-SS-007-0204 | SB007 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| 09 | 3/23 | 1120 | 05-SS-008-0204 | SB008 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| -10 | 3/23 | 1237 | 05-SS-009-0204 | SB009 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| -11 | 3/23 | 1337 | 05-SS-010-0204 | | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |

not run not enough sample

See 01

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | 3.23.11 | 1700 | 1. RECEIVED BY | 3.24.11 | 08:45 |
| 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

CTOJM26_001 Summ Package

11

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2774 | PAGE 2 OF 2

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Sawtley Field | Geoff Pope | 850 385 9899 | EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M Brock | | M. Brock | 850 294 2830 | 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 8748 4755 6066 | | Nashville TN, 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG / AG / AG

PRESERVATIVE USED: H2O meth / none ice / none ice

TYPE OF ANALYSIS: BTEX, MTBE / PAH / TRPH

| | DATE YEAR 2011 | 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 | BTEX, MTBE | PAH | TRPH | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -12 | 3/23 | 1415 | 05-SS-011-0204 | SB011 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | See-01 |
| -13 | 3/23 | 1500 | 05-SS-012-0204 | SB012 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | ✓ |
| | ~~3/23~~ | | | | MB | | | | | | | | | | | | |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY: M Brock | 3.23.11 | 1700 | 1. RECEIVED BY: [signature] | 3-24-11 | 08:45 |
| 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

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CTOJM26_001 Summ Package

# HOLDING TIME SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-001-0204 | 03/22/11 11:25 | 03/23/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 12:33 | 6.09 | 14.00 | |
| 05-SS-002-0204 | 03/22/11 14:05 | 03/23/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 12:57 | 5.99 | 14.00 | |
| 05-SS-003-0204 | 03/22/11 14:48 | 03/23/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 13:21 | 5.98 | 14.00 | |
| 05-SS-004-0204 | 03/22/11 15:33 | 03/23/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 13:45 | 5.97 | 14.00 | |
| TripBlank #9482 | 03/22/11 00:00 | 03/23/11 08:45 | 03/25/11 00:00 | N/A | 14.00 | 03/25/11 11:48 | 3.49 | 14.00 | |
| 05-SS-005-0204 | 03/23/11 07:34 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 14:09 | 5.27 | 14.00 | |
| 05-SS-005-0204D | 03/23/11 07:34 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 14:33 | 5.29 | 14.00 | |
| 05-MW-005 | 03/23/11 08:15 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/29/11 02:51 | 5.78 | 14.00 | |
| 05-MW-005-D | 03/23/11 08:15 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 15:49 | 5.32 | 14.00 | |
| Equip Blank 01 | 03/23/11 07:20 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 11:17 | 5.16 | 14.00 | |
| Trip Blank 9485 | 03/23/11 00:00 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 22:49 | 5.95 | 14.00 | |
| 05-SS-006-0204 | 03/23/11 09:57 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 14:57 | 5.21 | 14.00 | |
| 05-SS-007-0204 | 03/23/11 10:27 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 15:21 | 5.20 | 14.00 | |
| 05-SS-008-0204 | 03/23/11 11:20 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 15:45 | 5.18 | 14.00 | |
| 05-SS-009-0204 | 03/23/11 12:37 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 16:09 | 5.15 | 14.00 | |
| 05-SS-010-0204 | 03/23/11 13:37 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 16:33 | 5.12 | 14.00 | |
| 05-SS-011-0204 | 03/23/11 14:15 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 16:57 | 5.11 | 14.00 | |
| 05-SS-012-0204 | 03/23/11 15:00 | 03/24/11 08:45 | 03/28/11 00:00 | N/A | 14.00 | 03/28/11 17:21 | 5.10 | 14.00 | |

# HOLDTIME

**SDG** CTOJM26_001

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| M | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| M | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 04/06/2011 | 04/07/2011 | 13 | 1 | 14 |
| M | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| EDB | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| EDB | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 04/06/2011 | 04/06/2011 | 13 | 0 | 13 |
| EDB | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| EDB | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| OV | MG/KG | 05-SS-024-0204 | 1103228-06RE1 | NM | 03/25/2011 | 03/30/2011 | 03/30/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-014-0204 | 1103220-05 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-015-0204 | 1103220-07 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-016-0204 | 1103220-08 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-017-0204 | 1103220-09 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-018-1520 | 1103220-10 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-019-0204 | 1103220-11 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | MG/KG | 05-SS-020-0204 | 1103228-01 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-021-0204 | 1103228-03 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-013-0204-D | 1103220-04 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-023-0204 | 1103228-05 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-025-0204 | 1103228-07 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-026-0204 | 1103228-08 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-022-0204 | 1103228-04 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-005-0204D | 1103208-02 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-013-0204 | 1103220-02RE1 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-002-0204 | 1103202-02 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-001-0204 | 1103202-01 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-003-0204 | 1103202-03 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-005-0204 | 1103208-01 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-006-0204 | 1103208-07 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-007-0204 | 1103208-08 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-008-0204 | 1103208-09 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-009-0204 | 1103208-10 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-010-0204 | 1103208-11 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | MG/KG | 05-SS-011-0204 | 1103208-12 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-012-0204 | 1103208-13 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-004-0204 | 1103202-04 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 03/29/2011 | 03/30/2011 | 5 | 1 | 6 |
| OV | UG/L | Trip Blank 9485 | 1103208-06 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 03/28/2011 | 03/29/2011 | 5 | 1 | 6 |
| OV | UG/L | TripBlank #9482 | 1103202-05 | NM | 03/22/2011 | 03/25/2011 | 03/25/2011 | 3 | 0 | 3 |
| OV | UG/L | TRIP BLANK 9490 | 1103220-03 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | UG/L | Trip Blank 9484 | 1103228-02 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| SIM | MG/KG | 05-SS-006-0204 | 1103208-07 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-001-0204 | 1103202-01 | SUR | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-011-0204 | 1103208-12 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-010-0204 | 1103208-11 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-011-0204 | 1103208-12 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-010-0204 | 1103208-11 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-009-0204 | 1103208-10 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-009-0204 | 1103208-10 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-008-0204 | 1103208-09 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-008-0204 | 1103208-09 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-007-0204 | 1103208-08 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-007-0204 | 1103208-08 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-006-0204 | 1103208-07 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-005-0204D | 1103208-02 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-005-0204D | 1103208-02 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-005-0204 | 1103208-01 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-005-0204 | 1103208-01 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-004-0204 | 1103202-04 | SUR | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-004-0204 | 1103202-04 | NM | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-003-0204 | 1103202-03 | SUR | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-003-0204 | 1103202-03 | NM | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-002-0204 | 1103202-02 | NM | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-001-0204 | 1103202-01 | NM | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-012-0204 | 1103208-13 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-013-0204 | 1103220-02 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-002-0204 | 1103202-02 | SUR | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-019-0204 | 1103220-11 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-012-0204 | 1103208-13 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-026-0204 | 1103228-08 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-026-0204 | 1103228-08 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-025-0204 | 1103228-07 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-025-0204 | 1103228-07 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-024-0204 | 1103228-06 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-024-0204 | 1103228-06 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-023-0204 | 1103228-05 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-023-0204 | 1103228-05 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-022-0204 | 1103228-04 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-022-0204 | 1103228-04 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-021-0204 | 1103228-03 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-021-0204 | 1103228-03 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-020-0204 | 1103228-01 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-016-0204 | 1103220-08 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-013-0204 | 1103220-02 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-013-0204-D | 1103220-04 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-013-0204-D | 1103220-04 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-014-0204 | 1103220-05 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-014-0204 | 1103220-05 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-020-0204 | 1103228-01 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-015-0204 | 1103220-07 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-016-0204 | 1103220-08 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-017-0204 | 1103220-09 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-017-0204 | 1103220-09 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-018-1520 | 1103220-10 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-018-1520 | 1103220-10 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-019-0204 | 1103220-11 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-015-0204 | 1103220-07 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 03/29/2011 | 04/04/2011 | 5 | 6 | 11 |
| SIM | UG/L | 05-MW-014 | 1103220-06 | SUR | 03/24/2011 | 03/29/2011 | 04/04/2011 | 5 | 6 | 11 |
| SIM | UG/L | EQUIP BLANK 01 | 1103220-01 | SUR | 03/23/2011 | 03/29/2011 | 04/04/2011 | 6 | 6 | 12 |
| SIM | UG/L | 05-MW-005-D | 1103208-04 | SUR | 03/23/2011 | 03/25/2011 | 03/28/2011 | 2 | 3 | 5 |
| SIM | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 03/25/2011 | 03/28/2011 | 2 | 3 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | UG/L | 05-MW-005 | 1103208-03 | SUR | 03/23/2011 | 03/25/2011 | 03/28/2011 | 2 | 3 | 5 |
| SIM | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 03/25/2011 | 03/28/2011 | 2 | 3 | 5 |
| SIM | UG/L | EQUIP BLANK 01 | 1103220-01 | NM | 03/23/2011 | 03/29/2011 | 04/04/2011 | 6 | 6 | 12 |
| TPH | MG/KG | 05-SS-022-0204 | 1103228-04 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-014-0204 | 1103220-05 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-015-0204 | 1103220-07 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-016-0204 | 1103220-08 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-017-0204 | 1103220-09 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-018-1520 | 1103220-10 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-019-0204 | 1103220-11 | NM | 03/24/2011 | 04/06/2011 | 04/07/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-021-0204 | 1103228-03 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-012-0204 | 1103208-13 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-023-0204 | 1103228-05 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-024-0204 | 1103228-06 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-025-0204 | 1103228-07 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-026-0204 | 1103228-08 | NM | 03/25/2011 | 04/06/2011 | 04/08/2011 | 12 | 2 | 14 |
| TPH | MG/KG | 05-SS-020-0204 | 1103228-01 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-005-0204 | 1103208-01 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-001-0204 | 1103202-01 | NM | 03/22/2011 | 03/29/2011 | 03/30/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-002-0204 | 1103202-02 | NM | 03/22/2011 | 03/29/2011 | 03/30/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-013-0204-D | 1103220-04 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-004-0204 | 1103202-04 | NM | 03/22/2011 | 03/29/2011 | 03/31/2011 | 7 | 2 | 9 |
| TPH | MG/KG | 05-SS-013-0204 | 1103220-02 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-005-0204D | 1103208-02 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-006-0204 | 1103208-07 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-007-0204 | 1103208-08 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-008-0204 | 1103208-09 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-009-0204 | 1103208-10 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-010-0204 | 1103208-11 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-011-0204 | 1103208-12 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-003-0204 | 1103202-03 | NM | 03/22/2011 | 03/29/2011 | 03/31/2011 | 7 | 2 | 9 |
| TPH | MG/L | EQUIP BLANK 01 | 1103220-01 | NM | 03/23/2011 | 03/29/2011 | 03/30/2011 | 6 | 1 | 7 |
| TPH | MG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 03/29/2011 | 03/30/2011 | 6 | 1 | 7 |
| TPH | MG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 03/29/2011 | 03/30/2011 | 6 | 1 | 7 |
| TPH | MG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 03/29/2011 | 03/30/2011 | 5 | 1 | 6 |

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103202 Number of Coolers: 1 of 1

Client: Tetra Tech Project: 112G02746

Date/Time Received: 3.23.11 0845 Date cooler(s) opened: 3.23.11

Opened By (print): Reginald Talley (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: 6065

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3.22.11 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: Initial Value: 1.5 °C Correction Factor: -0.3 °C Final Value: 1.2 °C

Dates samples were logged-in: 3-24-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]

| | | | |
|---|---|---|---|
| 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 RT 3.23 |
| 18. Was headspace present in any included VOA vials? | Yes | No | N/A |

If Non-Conformance issues were present, list by sample ID: _____

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103208 Number of Coolers: 1 of 7 3-24-11

Client: Tetra Tech Project: Sanfley Field

Date/Time Received: 3.24.11 0845 Date cooler(s) opened: 3.24.11

Opened By (print): Reginald Talley (signature): [signature]

Circle response below as appropriate

1. How did the samples arrive? FedEx UPS DHL Hand Delivered

EL Courier 3-24 Other: _____

If applicable, enter airbill number here: 8806

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3.23.11 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: Initial Value: 2.2 °C Correction Factor: -0.3 °C Final Value: 1.9 °C

Dates samples were logged-in: 3-24-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [initials]
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

If Non-Conformance issues were present, list by sample ID: _____

- ph<2 for all FLPRO & metals
- did not receive PAH or FLPRO volume for (-05)

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103208 Number of Coolers: 1 of 1 2 3 3-24-11

Client: Tetra Tech Project: Sanfley Field

Date/Time Received: 3.24.11 0845 Date cooler(s) opened: 3.24.11

Opened By (print): Reginald Talley (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: 8857

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3.23.11 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: Initial Value: 1.2 °C Correction Factor: -0.3 °C Final Value: 0.9 °C

Dates samples were logged-in: 3-24-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [initials]
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

If Non-Conformance issues were present, list by sample ID: _____

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103208 Number of Coolers: 3 of 3 03-24-11

Client: Tetra Tech Project: Sanfley Field

Date/Time Received: 3.24.11 0845 Date cooler(s) opened: 3.24.11

Opened By (print): Reginald Talley (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: 6066

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3.23.11 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: Initial Value: 1.8 °C Correction Factor: -0.3 °C Final Value: 1.5 °C

Dates samples were logged-in: 3-24-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: _____

# Sample Delivery Group Assignment Form

CLIENT: Tetra Tech NUS, Inc. (T010)
PROJECT NAME: NAS Pensacola CTO JM26 Saufley
SDG #: CTOJM26_001
MATRIX: Soil

QC LEVEL: Level IV
Report Due: 4/12/2011
Client Sample Count: 11

| Sample Type | Sampled | Received | Lab ID | Client ID | FLPRO | SM2540B | SW6010C | SW8011 | SW8260B | SW8270C |
|---|---|---|---|---|---|---|---|---|---|---|
| Composite | 3/22/2011 | 3/23/2011 | 1103202-01 | 05-SS-001-0204 | X | X | | | X | X |
| Composite | 3/22/2011 | 3/23/2011 | 1103202-02 | 05-SS-002-0204 | X | X | | | X | X |
| Composite | 3/22/2011 | 3/23/2011 | 1103202-03 | 05-SS-003-0204 | X | X | | | X | X |
| Composite | 3/22/2011 | 3/23/2011 | 1103202-04 | 05-SS-004-0204 | X | X | | | X | X |
| Trip Blank | 3/22/2011 | 3/23/2011 | 1103202-05 | TripBlank #9482 | | | | | X | |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-01 | 05-SS-005-0204 | X | X | | | X | X |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-02 | 05-SS-005-0204D | X | X | | | X | X |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-03 | 05-MW-005 | MS/MSD | | MS/MSD | MS/MSD | MS/MSD | MS/MSD |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-04 | 05-MW-005-D | X | | X | X | X | X |
| Equipment Blank | 3/23/2011 | 3/24/2011 | 1103208-05 | Equip Blank 01 | | | X | X | X | |
| Trip Blank | 3/23/2011 | 3/24/2011 | 1103208-06 | Trip Blank 9485 | | | | | X | |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-07 | 05-SS-006-0204 | X | X | | | X | X |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-08 | 05-SS-007-0204 | X | X | | | X | X |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-09 | 05-SS-008-0204 | X | X | | | X | X |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-10 | 05-SS-009-0204 | X | X | | | X | X |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-11 | 05-SS-010-0204 | X | X | | | X | X |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-12 | 05-SS-011-0204 | X | X | | | X | X |
| Client Sample | 3/23/2011 | 3/24/2011 | 1103208-13 | 05-SS-012-0204 | X | X | | | X | X |

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

Sample volume for FLPRO and PAH was not received for sample Equip Blank 01 (1103208-05).

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
No anomalies or deviations are noted.

**SW8270C:**
The matrix spikes associated to sample 1103208-03 exceeded recovery criteria with a positive bias for 2-Methylnaphthalene and Naphthalene and exceeded relative percent difference criteria for Benzo(g,h,i)perylene, Dibenz(a,h)anthracene, and

Indeno(1,2,3-cd)pyrene.

The method blank 1C24017-BLK1 has a positive result for Benzo(a)anthracene.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
No anomalies or deviations are noted.

**SW8011:**
The matrix spike associated to sample 1103208-03 exceeded criteria with a negative bias for 1,2-Dibromoethane on both columns and the matrix spikes exceeded relative percent difference criteria on both columns for 1,2-Dibromoethane.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW6010C:**
No anomalies or deviations are noted.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

## Analytical Report Terms and Qualifiers

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.1 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.1 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.1 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*****: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE**" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C07710 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C07710-TUN1 | 0307TU1.D | 03/07/11 12:22 |
| Cal Standard | 1C07710-CAL1 | 0307CAL1.D | 03/07/11 12:53 |
| Cal Standard | 1C07710-CAL2 | 0307CAL2.D | 03/07/11 13:23 |
| Cal Standard | 1C07710-CAL3 | 0307CAL3.D | 03/07/11 13:53 |
| Cal Standard | 1C07710-CAL4 | 0307CAL4.D | 03/07/11 14:23 |
| Cal Standard | 1C07710-CAL5 | 0307CAL5.D | 03/07/11 14:54 |
| Cal Standard | 1C07710-CAL6 | 0307CAL6.D | 03/07/11 15:24 |
| Cal Standard | 1C07710-CAL7 | 0307CAL7.D | 03/07/11 15:54 |
| Cal Standard | 1C07710-CAL8 | 0307CAL8.D | 03/07/11 16:24 |
| Cal Standard | 1C07710-CAL9 | 0307CAL9.D | 03/07/11 16:54 |
| Initial Cal Check | 1C07710-ICV1 | 0307ICV1.D | 03/07/11 17:25 |
| Initial Cal Check | 1C07710-ICV2 | 0307ICV2.D | 03/07/11 17:55 |
| MS Tune | 1C07710-TUN2 | 0317TU2.D | 03/17/11 18:43 |
| Cal Standard | 1C07710-CALB | 0317CAL2.D | 03/17/11 19:13 |
| Cal Standard | 1C07710-CALC | 0317CAL3.D | 03/17/11 20:14 |
| Cal Standard | 1C07710-CALD | 0317CAL4.D | 03/17/11 20:44 |
| Cal Standard | 1C07710-CALE | 0317CAL5.D | 03/17/11 21:14 |
| Cal Standard | 1C07710-CALF | 0317CAL6.D | 03/17/11 21:44 |
| Cal Standard | 1C07710-CALG | 0317CAL7.D | 03/17/11 22:14 |
| Cal Standard | 1C07710-CALH | 0317CAL8.D | 03/17/11 22:44 |
| Cal Standard | 1C07710-CAL1 | 0317CAL9.D | 03/17/11 23:15 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0307TU1.D | Injection Date: | 03/07/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 12:22 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 29.7 | PASS |
| 75 | 30 - 60% of 95 | 59.7 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.36 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 73.4 | PASS |
| 175 | 5 - 9% of 174 | 8.34 | PASS |
| 176 | 95 - 101% of 174 | 99.3 | PASS |
| 177 | 5 - 9% of 176 | 6.54 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TU2.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 18:43 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.7 | PASS |
| 75 | 30 - 60% of 95 | 50.9 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.95 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 97.6 | PASS |
| 175 | 5 - 9% of 174 | 8.17 | PASS |
| 176 | 95 - 101% of 174 | 96.9 | PASS |
| 177 | 5 - 9% of 176 | 5.26 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.1125867 | 7.77521 | 6.244286 | 0.1071381 | | | 15 | |
| Acrolein | 4.283427E-02 | 12.92661 | 6.061 | 9.119184E-02 | | | 15 | |
| Acrylonitrile | 7.491512E-02 | 13.92187 | 7.023556 | 3.951867E-02 | | | 15 | |
| Benzene | 0.7397262 | 7.773478 | 12.87444 | 3.353187E-02 | | | 15 | |
| Bromobenzene | 0.5955635 | 7.19635 | 17.832 | 2.354569E-02 | | | 15 | |
| Bromochloromethane | 0.1240907 | 7.549579 | 10.87744 | 7.156777E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7406833 | 20.99942 | 13.17687 | 5.183132E-02 | 0.9999422 | | 0.995 | |
| Bromodichloromethane | 0.393441 | 7.099247 | 13.80056 | 3.837247E-02 | | | 15 | |
| Bromoform | 0.3892677 | 8.488088 | 17.10711 | 1.904145E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2262604 | 13.09668 | 5.114 | 0.1004568 | | | 15 | |
| Bromofluorobenzene | 0.864999 | 4.547687 | 17.648 | 1.998807E-02 | | | 15 | |
| n-Butylbenzene | 1.378201 | 11.49175 | 19.04511 | 1.294924E-02 | | | 15 | |
| 2-Butanone | 0.1018668 | 27.92435 | 10.211 | 0.2192854 | 0.9987152 | | 0.995 | |
| sec-Butylbenzene | 1.844833 | 8.220999 | 18.57544 | 1.160729E-02 | | | 15 | |
| tert-Butylbenzene | 1.620182 | 6.678325 | 18.70456 | 1.990774E-02 | | | 15 | |
| Carbon disulfide | 0.6346432 | 9.888999 | 7.626889 | 8.141692E-02 | | | 15 | |
| Carbon tetrachloride | 0.3803403 | 6.452072 | 12.83711 | 3.700651E-02 | | | 15 | |
| Chlorobenzene | 1.095895 | 8.347509 | 16.69756 | 2.251491E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.1608279 | 8.222487 | 5.294667 | 9.353293E-02 | | | 15 | |
| Chloroform | 0.5084763 | 6.591332 | 10.98578 | 4.276434E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1134227 | 26.69582 | 14.347 | 3.374881E-02 | 0.9997447 | | 0.995 | |
| Chloromethane | 0.2980831 | 6.289672 | 4.365 | 0.188516 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.006089 | 7.388732 | 16.64067 | 2.133492E-02 | | | 15 | |
| 2-Chlorotoluene | 1.523137 | 5.306562 | 18.04867 | 2.098941E-02 | | | 15 | |
| 4-Chlorotoluene | 1.587775 | 9.227864 | 18.10889 | 1.213713E-02 | | | 15 | |
| Cyclohexane | 0.2775874 | 17.23492 | 12.74089 | 2.177786E-02 | 0.9997448 | | 0.995 | |
| Dibromochloromethane | 0.5274875 | 8.94386 | 15.70911 | 2.530325E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1119632 | 25.2941 | 19.43156 | 3.067344E-02 | 0.9986619 | | 0.995 | |
| 1,2-Dibromoethane (EDB) | 0.4534325 | 6.873208 | 15.93667 | 2.316429E-02 | | | 15 | |
| Dibromomethane | 0.1896182 | 11.46889 | 13.63856 | 2.978158E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 0.9705237 | 8.407707 | 19.03511 | 2.694366E-03 | | | 15 | |
| 1,3-Dichlorobenzene | 1.080832 | 6.190879 | 18.67178 | 1.189958E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.153474 | 6.60659 | 18.72089 | 8.928354E-03 | | | 15 | |
| Dichlorodifluoromethane | 0.312813 | 10.7244 | 4.119 | 9.264489E-02 | | | 15 | |
| 1,1-Dichloroethane | 0.4332253 | 8.462878 | 9.104889 | 6.797151E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.4958154 | 6.096195 | 12.131 | 3.325407E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.1779832 | 11.23937 | 6.967667 | 0.1020339 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2226177 | 11.77531 | 10.56189 | 0.0539483 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2077027 | 10.73761 | 8.525556 | 6.283411E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2151602 | 10.90176 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2138675 | 12.72516 | 13.69356 | 2.877113E-02 | 0.9994699 | | CCC (20) | |
| 1,3-Dichloropropane | 0.7045052 | 7.356771 | 15.46267 | 3.084139E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.387605 | 6.483752 | 11.15322 | 4.720791E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.3169346 | 12.22384 | 12.60622 | 4.157777E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3942719 | 12.15062 | 14.59088 | 1.900144E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.6325373 | 15.33703 | 15.05978 | 2.420188E-02 | 0.996921 | | 0.995 | |
| Diisopropyl Ether | 0.7397891 | 20.08696 | 10.34763 | 4.918967E-02 | 0.9988929 | | 0.995 | |
| Ethylbenzene | 1.744482 | 8.836318 | 16.84989 | 7.809333E-03 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.6852749 | 17.62274 | 11.194 | 5.283168E-02 | 0.9997283 | | 0.995 | |
| Ethyl Methacrylate | 0.4920032 | 19.18718 | 15.50875 | 1.084665E-02 | 0.9984347 | | 0.995 | |
| Hexachlorobutadiene | 0.3208413 | 8.710181 | 21.0895 | 1.924166E-02 | | | 15 | |
| 2-Hexanone | 0.28784 | 36.32521 | 15.62175 | 0.0320628 | 0.9989233 | | 0.995 | |
| Iodomethane | 0.3171042 | 26.94596 | 7.022444 | 9.520778E-02 | 0.9998641 | | 0.995 | |
| Isopropylbenzene | 1.42457 | 9.248017 | 17.611 | 1.726366E-02 | | | 15 | |
| p-Isopropyltoluene | 1.23658 | 14.38435 | 18.40356 | 2.441437E-02 | | | 15 | |
| Methylene chloride | 0.2446354 | 7.987043 | 7.210778 | 6.620158E-02 | | | 15 | |
| Methyl Acetate | 0.2084104 | 8.369294 | 7.26575 | 5.467954E-02 | | | 15 | |
| Methylcyclohexane | 0.2523952 | 13.6448 | 14.39522 | 2.265609E-02 | | | 15 | |
| Naphthalene | 1.191261 | 23.06464 | 21.05987 | 0.0200552 | 0.9993743 | | 0.995 | |
| Methyl Methacrylate | 0.2187958 | 26.61597 | 14.03787 | 3.704044E-02 | 0.9996399 | | 0.995 | |
| 4-Methyl-2-pentanone | 0.2291641 | 26.90628 | 14.72129 | 3.572917E-02 | 0.998877 | | 0.995 | |
| Methyl t-Butyl Ether | 0.6052207 | 12.8349 | 8.8215 | 8.072976E-02 | | | 15 | |
| n-Propylbenzene | 2.237126 | 9.337402 | 17.95567 | 1.994119E-02 | | | 15 | |
| Styrene | 0.9900017 | 17.07341 | 17.26711 | 2.496185E-02 | 0.9965055 | | 0.995 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1078001 | Instrument: | MS-VOA5 | |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 | 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6316098 | 10.04922 | 17.33711 | 2.899413E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.4599538 | 6.327222 | 16.63844 | 0.0277822 | | | 15 | |
| tert-Butyl alcohol | 2.388361E-02 | 13.61304 | 6.978556 | 0.1148859 | | | 15 | |
| Tetrachloroethene | 0.4471173 | 6.159572 | 16.11311 | 2.040489E-02 | | | 15 | |
| Toluene | 0.898576 | 5.037507 | 15.40022 | 1.146996E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.5261452 | 14.88703 | 21.32 | 1.886098E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.5974773 | 14.98864 | 20.7705 | 1.201415E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.3365667 | 8.950328 | 15.214 | 1.611987E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.4251429 | 6.687847 | 12.30511 | 4.576472E-02 | | | 15 | |
| Tetrahydrofuran | 5.018338E-02 | 22.93539 | 11.61686 | 9.895117E-02 | 0.9967826 | | 0.995 | |
| Trichloroethene | 0.2427349 | 7.126394 | 13.76456 | 0.0129328 | | | 15 | |
| Trichlorofluoromethane | 0.4960261 | 4.904977 | 6.104889 | 0.1074519 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1614366 | 9.000474 | 17.44544 | 3.217736E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.570048 | 8.309356 | 18.16144 | 1.721281E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.587549 | 10.03676 | 18.48033 | 3.047003E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2442818 | 8.405401 | 7.325778 | 7.810021E-02 | | | 15 | |
| Vinyl chloride | 0.2947606 | 14.0323 | 4.588555 | 0.1334175 | 0.9995107 | | CCC (20) | |
| m,p-Xylene | 1.366232 | 11.79195 | 17.00411 | 0.0168046 | | | 15 | |
| o-Xylene | 1.476455 | 10.00571 | 17.32733 | 2.448285E-02 | | | 15 | |
| Vinyl acetate | 0.2765328 | 28.3144 | 9.427714 | 0.103809 | 0.9990022 | | 0.995 | |
| Xylenes (total) | 1.402973 | 10.95705 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3744165 | 3.817796 | 11.19738 | 3.515222E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 6.425678E-02 | 3.823517 | 11.99925 | 2.523171E-02 | | | 15 | |
| Toluene-d8 | 1.791679 | 4.193785 | 15.32337 | 1.566914E-02 | | | 15 | |
| tert-Amyl alcohol | 1.211988E-02 | 27.37992 | 11.86886 | 4.178914E-02 | 0.9964038 | | 0.995 | |
| tert-Amyl ethyl ether | 0.5459039 | 17.64679 | 14.268 | 2.379276E-02 | 0.9999014 | | 0.995 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0307ICV1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV1 | Injection Time: | 17:25 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 50.00 | 59.48 | 0.7397262 | 0.8799265 | | 19.0 | 20 |
| Methyl t-Butyl Ether | A | 50.00 | 53.21 | 0.6052207 | 0.6440646 | | 6.4 | 20 |
| Xylenes (total) | A | 150.0 | 178.2 | 1.402973 | 1.666436 | | 18.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.02 | 0.864999 | 0.8654822 | | 0.06 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.13 | 0.3744165 | 0.3515641 | | -6.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.21 | 6.425678E-02 | 6.471411E-02 | | 0.7 | 20 |
| Toluene-d8 | A | 30.00 | 31.54 | 1.791679 | 1.883703 | | 5.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0307ICV2.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV2 | Injection Time: | 17:55 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Ethylbenzene | A | 100.0 | 110.5 | 1.744482 | 1.927945 | | 10.5 | 20 |
| Toluene | A | 100.0 | 114.8 | 0.898576 | 1.031524 | | 14.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08802 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08802-TUN1 | 0328TU1.D | 03/28/11 07:32 |
| Calibration Check | 1C08802-CCV1 | 0328CC1.D | 03/28/11 08:04 |
| LCS | 1C28008-BS1 | 0328LS1.D | 03/28/11 08:48 |
| Blank | 1C28008-BLK1 | 0328BL1.D | 03/28/11 10:16 |
| Equip Blank 01 | 1103208-05 | 0320805.D | 03/28/11 11:17 |
| 05-MW-005-D | 1103208-04 | 0320804.D | 03/28/11 15:49 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0328TU1.D | Injection Date: | 03/28/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 07:32 |
| Sequence: | 1C08802 | Lab Sample ID: | 1C08802-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 28.4 | PASS |
| 75 | 30 - 60% of 95 | 56.1 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.45 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 79.7 | PASS |
| 175 | 5 - 9% of 174 | 8.08 | PASS |
| 176 | 95 - 101% of 174 | 98.5 | PASS |
| 177 | 5 - 9% of 176 | 6.91 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0328CC1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C08802 | Injection Date: | 03/28/11 |
| Lab Sample ID: | 1C08802-CCV1 | Injection Time: | 08:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acrolein | A | 500.2 | 406.1 | 4.283427E-02 | 3.478767E-02 | | -18.8 | 20 |
| Acrylonitrile | A | 499.8 | 490.8 | 7.491512E-02 | 7.354363E-02 | | -1.8 | 20 |
| Benzene | A | 100.0 | 105.5 | 0.7397262 | 0.7807562 | | 5.5 | 20 |
| Bromodichloromethane | A | 100.0 | 104.5 | 0.393441 | 0.4111838 | | 4.5 | 20 |
| Bromoform | A | 100.0 | 110.1 | 0.3892677 | 0.4284597 | 0.1 | 10.1 | 20 |
| Bromomethane | A | 100.0 | 88.34 | 0.2262604 | 0.1998815 | | -11.7 | 20 |
| Carbon tetrachloride | A | 100.0 | 102.3 | 0.3803403 | 0.3891049 | | 2.3 | 20 |
| Chlorobenzene | A | 100.0 | 98.69 | 1.095895 | 1.081554 | 0.3 | -1.3 | 20 |
| Chloroethane | A | 100.0 | 105.2 | 0.1608279 | 0.1692283 | | 5.2 | 20 |
| Chloroform | A | 100.0 | 97.53 | 0.5084763 | 0.495933 | | -2.5 | 20 |
| 2-Chloroethyl vinyl ether | L | 199.5 | 191.2 | 0.1134227 | 0.1353088 | | -4.2 | 20 |
| Chloromethane | A | 100.0 | 96.76 | 0.2980831 | 0.2884147 | 0.1 | -3.2 | 20 |
| Dibromochloromethane | A | 100.0 | 108.0 | 0.5274875 | 0.5695298 | | 8.0 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 102.1 | 0.4534325 | 0.4627868 | | 2.1 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 102.0 | 0.4332253 | 0.4421295 | 0.1 | 2.1 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 101.2 | 0.4958155 | 0.5017375 | | 1.2 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 106.1 | 0.1779832 | 0.188779 | | 6.1 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 104.0 | 0.2226177 | 0.2314231 | | 4.0 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 104.5 | 0.2077027 | 0.2171402 | | 4.5 | 20 |
| 1,2-Dichloropropane | L | 100.0 | 93.14 | 0.2138675 | 0.2231522 | | -6.9 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 106.6 | 0.3942719 | 0.4203341 | | 6.6 | 20 |
| trans-1,3-Dichloropropene | L | 100.0 | 106.0 | 0.6325373 | 0.7343081 | | 6.0 | 20 |
| Ethylbenzene | A | 100.0 | 102.8 | 1.744482 | 1.793865 | | 2.8 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 107.6 | 0.6052207 | 0.6513879 | | 7.6 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 94.65 | 0.6316098 | 0.5978415 | 0.3 | -5.3 | 20 |
| Tetrachloroethene | A | 100.0 | 101.0 | 0.4471173 | 0.4517408 | | 1.0 | 20 |
| Toluene | A | 100.0 | 101.9 | 0.898576 | 0.9156396 | | 1.9 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 111.6 | 0.5974773 | 0.667134 | | 11.7 | 20 |
| 1,1,2-Trichloroethane | A | 100.0 | 100.6 | 0.3365667 | 0.3385417 | | 0.6 | 20 |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0328CC1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C08802 | Injection Date: | 03/28/11 |
| Lab Sample ID: | 1C08802-CCV1 | Injection Time: | 08:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,1,1-Trichloroethane | A | 100.0 | 101.7 | 0.4251429 | 0.4323289 | | 1.7 | 20 |
| Trichloroethene | A | 100.0 | 102.4 | 0.2427349 | 0.2485891 | | 2.4 | 20 |
| Vinyl chloride | L | 100.0 | 98.78 | 0.2947606 | 0.3286069 | | -1.2 | 20 |
| Xylenes (total) | A | 300.0 | 302.4 | 1.402973 | 1.414492 | | 0.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 29.26 | 0.864999 | 0.8437165 | | -2.5 | 20 |
| Dibromofluoromethane | A | 30.00 | 27.81 | 0.3744165 | 0.3475129 | | -7.2 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 28.15 | 6.425678E-02 | 6.028991E-02 | | -6.2 | 20 |
| Toluene-d8 | A | 30.00 | 28.06 | 1.791679 | 1.675959 | | -6.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C28008 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-005-D | 1103208-04 | 03/28/11 00:00 | 5.00 | 5.00 |
| Equip Blank 01 | 1103208-05 | 03/28/11 00:00 | 5.00 | 5.00 |
| Blank | 1C28008-BLK1 | 03/28/11 00:00 | 5.00 | 5.00 |
| LCS | 1C28008-BS1 | 03/28/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Equip Blank 01**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1103208-05 | File ID: | 0320805.D |
| Sampled: | 03/23/11 07:20 | Prepared: | 03/28/11 00:00 | Analyzed: | 03/28/11 11:17 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C28008 Sequence: 1C08802 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | 0.665 | 0.250 | 0.500 | 1.00 | I |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.74 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.53 | 102 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.75 | 102 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.66 | 106 | 85 - 120 | |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | | Laboratory ID: | 1C28008-BLK1 | File ID: | 0328BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/28/11 10:16 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1C28008 Sequence: 1C08802 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.56 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 29.75 | 99.2 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.96 | 103 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.18 | 101 | 85 - 120 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08806 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08806-TUN1 | 0328TU1E.D | 03/28/11 19:51 |
| Calibration Check | 1C08806-CCV1 | 0328CC1E.D | 03/28/11 20:21 |
| LCS | 1C28016-BS1 | 0328LS1E.D | 03/28/11 20:51 |
| Blank | 1C28016-BLK1 | 0328BL1E.D | 03/28/11 22:19 |
| Trip Blank 9485 | 1103208-06 | 0320806.D | 03/28/11 22:49 |
| 05-MW-005 | 1103208-03 | 0320803.D | 03/29/11 02:51 |
| 05-MW-005 | 1C28016-MS1 | 0320803M.D | 03/29/11 04:51 |
| 05-MW-005 | 1C28016-MSD1 | 0320803S.D | 03/29/11 05:22 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0328TU1E.D | Injection Date: | 03/28/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 19:51 |
| Sequence: | 1C08806 | Lab Sample ID: | 1C08806-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 25.4 | PASS |
| 75 | 30 - 60% of 95 | 51.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.46 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 80.4 | PASS |
| 175 | 5 - 9% of 174 | 7.69 | PASS |
| 176 | 95 - 101% of 174 | 98.9 | PASS |
| 177 | 5 - 9% of 176 | 6.96 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0328CC1E.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C08806 | Injection Date: | 03/28/11 |
| Lab Sample ID: | 1C08806-CCV1 | Injection Time: | 20:21 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acrolein | A | 500.2 | 494.2 | 4.283427E-02 | 4.233473E-02 | | -1.2 | 20 |
| Acrylonitrile | A | 499.8 | 615.0 | 7.491512E-02 | 9.214395E-02 | | 23.0 | 20 * |
| Benzene | A | 100.0 | 118.1 | 0.7397262 | 0.8736019 | | 18.1 | 20 |
| Bromodichloromethane | A | 100.0 | 101.1 | 0.393441 | 0.3976327 | | 1.1 | 20 |
| Bromoform | A | 100.0 | 114.9 | 0.3892677 | 0.4471503 | 0.1 | 14.9 | 20 |
| Bromomethane | A | 100.0 | 95.86 | 0.2262604 | 0.216903 | | -4.1 | 20 |
| Carbon tetrachloride | A | 100.0 | 99.26 | 0.3803403 | 0.3775367 | | -0.7 | 20 |
| Chlorobenzene | A | 100.0 | 103.6 | 1.095895 | 1.135739 | 0.3 | 3.6 | 20 |
| Chloroethane | A | 100.0 | 120.4 | 0.1608279 | 0.1935761 | | 20.4 | 20 * |
| Chloroform | A | 100.0 | 99.86 | 0.5084763 | 0.5077413 | | -0.1 | 20 |
| 2-Chloroethyl vinyl ether | L | 199.5 | 206.4 | 0.1134227 | 0.146301 | | 3.5 | 20 |
| Chloromethane | A | 100.0 | 111.4 | 0.2980831 | 0.3320393 | 0.1 | 11.4 | 20 |
| Dibromochloromethane | A | 100.0 | 109.8 | 0.5274875 | 0.5794778 | | 9.9 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 108.8 | 0.4534325 | 0.4932499 | | 8.8 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 111.2 | 0.4332253 | 0.481766 | 0.1 | 11.2 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 94.51 | 0.4958155 | 0.4686114 | | -5.5 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 117.7 | 0.1779832 | 0.2095408 | | 17.7 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 118.6 | 0.2226177 | 0.2640563 | | 18.6 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 117.2 | 0.2077027 | 0.2434536 | | 17.2 | 20 |
| 1,2-Dichloropropane | L | 100.0 | 104.1 | 0.2138675 | 0.2496679 | | 4.1 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 107.1 | 0.3942719 | 0.4224093 | | 7.1 | 20 |
| trans-1,3-Dichloropropene | L | 100.0 | 106.3 | 0.6325373 | 0.736343 | | 6.3 | 20 |
| Ethylbenzene | A | 100.0 | 108.8 | 1.744482 | 1.897597 | | 8.8 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 112.4 | 0.6052207 | 0.6801779 | | 12.4 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 109.8 | 0.6316098 | 0.6937328 | 0.3 | 9.8 | 20 |
| Tetrachloroethene | A | 100.0 | 112.5 | 0.4471173 | 0.5029537 | | 12.5 | 20 |
| Toluene | A | 100.0 | 112.5 | 0.898576 | 1.010578 | | 12.5 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 116.2 | 0.5974773 | 0.6945704 | | 16.3 | 20 |
| 1,1,2-Trichloroethane | A | 100.0 | 111.3 | 0.3365667 | 0.3745397 | | 11.3 | 20 |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0328CC1E.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C08806 | Injection Date: | 03/28/11 |
| Lab Sample ID: | 1C08806-CCV1 | Injection Time: | 20:21 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,1,1-Trichloroethane | A | 100.0 | 99.93 | 0.4251429 | 0.4248616 | | -0.07 | 20 |
| Trichloroethene | A | 100.0 | 105.4 | 0.2427349 | 0.2559025 | | 5.4 | 20 |
| Vinyl chloride | L | 100.0 | 105.0 | 0.2947606 | 0.3496104 | | 5.0 | 20 |
| Xylenes (total) | A | 300.0 | 317.6 | 1.402973 | 1.484661 | | 5.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.27 | 0.864999 | 0.8151935 | | -5.8 | 20 |
| Dibromofluoromethane | A | 30.00 | 27.61 | 0.3744165 | 0.3450623 | | -7.8 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.37 | 6.425678E-02 | 6.504579E-02 | | 1.2 | 20 |
| Toluene-d8 | A | 30.00 | 30.19 | 1.791679 | 1.803135 | | 0.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C28016 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-005 | 1103208-03 | 03/28/11 00:00 | 5.00 | 5.00 |
| Trip Blank 9485 | 1103208-06 | 03/28/11 00:00 | 5.00 | 5.00 |
| Blank | 1C28016-BLK1 | 03/28/11 00:00 | 5.00 | 5.00 |
| LCS | 1C28016-BS1 | 03/28/11 00:00 | 5.00 | 5.00 |
| 05-MW-005 | 1C28016-MS1 | 03/28/11 00:00 | 5.00 | 5.00 |
| 05-MW-005 | 1C28016-MSD1 | 03/28/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C28016-BLK1 | File ID: | 0328BL1E.D |
| Sampled: | | Prepared: | | Analyzed: | 03/28/11 22:19 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1C28016 Sequence: 1C08806 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | X, U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 32.50 | 108 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 28.90 | 96.3 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.46 | 105 | 70 - 120 | |
| Toluene-d8 | 30.00 | 33.51 | 112 | 85 - 120 | |

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08402 | Instrument: | MS-VOA4 |
| Calibration: | 1084001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08402-TUN1 | 0322TU1.D | 03/22/11 11:42 |
| Cal Standard | 1C08402-CAL1 | 0322CAL1.D | 03/22/11 12:12 |
| Cal Standard | 1C08402-CAL2 | 0322CAL2.D | 03/22/11 12:42 |
| Cal Standard | 1C08402-CAL3 | 0322CAL3.D | 03/22/11 13:11 |
| Cal Standard | 1C08402-CAL4 | 0322CAL4.D | 03/22/11 13:41 |
| Cal Standard | 1C08402-CAL5 | 0322CAL5.D | 03/22/11 14:11 |
| Cal Standard | 1C08402-CAL6 | 0322CAL6.D | 03/22/11 14:41 |
| Cal Standard | 1C08402-CAL7 | 0322CAL7.D | 03/22/11 15:10 |
| Cal Standard | 1C08402-CAL8 | 0322CAL8.D | 03/22/11 15:40 |
| Cal Standard | 1C08402-CAL9 | 0322CAL9.D | 03/22/11 16:10 |
| Initial Cal Check | 1C08402-ICV2 | 0322ICV2.D | 03/22/11 17:09 |
| Cal Standard | 1C08402-CALA | 0322CALA.D | 03/22/11 17:39 |
| Cal Standard | 1C08402-CALB | 0322CALB.D | 03/22/11 18:09 |
| Cal Standard | 1C08402-CALC | 0322CALC.D | 03/22/11 18:38 |
| Cal Standard | 1C08402-CALD | 0322CALD.D | 03/22/11 19:08 |
| Cal Standard | 1C08402-CALE | 0322CALE.D | 03/22/11 19:37 |
| Cal Standard | 1C08402-CALF | 0322CALF.D | 03/22/11 20:07 |
| Cal Standard | 1C08402-CALG | 0322CALG.D | 03/22/11 20:37 |
| Cal Standard | 1C08402-CALH | 0322CALH.D | 03/22/11 21:07 |
| Cal Standard | 1C08402-CALI | 0322CALI.D | 03/22/11 21:36 |
| MS Tune | 1C08402-TUN2 | 0324TU2.D | 03/24/11 11:41 |
| Cal Standard | 1C08402-CALJ | 0324CALJ.D | 03/24/11 12:10 |
| Cal Standard | 1C08402-CALK | 0324CALK.D | 03/24/11 12:40 |
| Cal Standard | 1C08402-CALL | 0324CALL.D | 03/24/11 13:09 |
| Cal Standard | 1C08402-CALM | 0324CALM.D | 03/24/11 13:39 |
| Cal Standard | 1C08402-CALN | 0324CALN.D | 03/24/11 14:09 |
| Cal Standard | 1C08402-CALO | 0324CALO.D | 03/24/11 14:38 |
| Cal Standard | 1C08402-CALP | 0324CALP.D | 03/24/11 15:08 |
| Cal Standard | 1C08402-CALQ | 0324CALQ.D | 03/24/11 15:37 |
| Cal Standard | 1C08402-CALR | 0324CALR.D | 03/24/11 16:07 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0322TU1.D | Injection Date: | 03/22/11 |
| Instrument ID: | MS-VOA4 | Injection Time: | 11:42 |
| Sequence: | 1C08402 | Lab Sample ID: | 1C08402-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 17.8 | PASS |
| 75 | 30 - 60% of 95 | 40.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.26 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 78.8 | PASS |
| 175 | 5 - 9% of 174 | 8.17 | PASS |
| 176 | 95 - 101% of 174 | 95.6 | PASS |
| 177 | 5 - 9% of 176 | 7.34 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0324TU2.D | Injection Date: | 03/24/11 |
| Instrument ID: | MS-VOA4 | Injection Time: | 11:41 |
| Sequence: | 1C08402 | Lab Sample ID: | 1C08402-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 18.7 | PASS |
| 75 | 30 - 60% of 95 | 44 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.41 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 65.9 | PASS |
| 175 | 5 - 9% of 174 | 8.4 | PASS |
| 176 | 95 - 101% of 174 | 98.2 | PASS |
| 177 | 5 - 9% of 176 | 7.73 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 7.581725E-02 | 12.9138 | 4.790222 | 0.049049 | | | 15 | |
| Acrolein | 0.0332781 | 17.15086 | 4.637778 | 0.1328997 | 0.9963037 | | 0.995 | |
| Acrylonitrile | 9.075655E-02 | 5.967214 | 5.377556 | 0.1635177 | | | 15 | |
| Benzene | 0.8598124 | 5.826665 | 11.32467 | 2.571886E-02 | | | 15 | |
| Bromobenzene | 0.7031528 | 3.794934 | 16.60044 | 0.0129509 | | | 15 | |
| Bromochloromethane | 0.1571874 | 10.14989 | 8.420222 | 8.362025E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7401368 | 21.15049 | 11.73244 | 4.981305E-02 | 0.9999557 | | 0.995 | |
| Bromodichloromethane | 0.2975079 | 3.338864 | 12.46467 | 3.137315E-02 | | | 15 | |
| Bromoform | 0.6079959 | 10.51022 | 15.90856 | 2.272561E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.1697082 | 8.151545 | 3.912111 | 8.414468E-02 | | | 15 | |
| Bromofluorobenzene | 0.9203766 | 6.208993 | 16.44933 | 2.376311E-02 | | | 15 | |
| n-Butylbenzene | 1.150237 | 5.314464 | 17.69211 | 1.288763E-02 | | | 15 | |
| 2-Butanone | 0.1038089 | 9.991007 | 7.8065 | 0.2294757 | | | 15 | |
| sec-Butylbenzene | 1.609253 | 4.427802 | 17.27867 | 7.963235E-03 | | | 15 | |
| tert-Butylbenzene | 1.130788 | 4.65364 | 17.12422 | 2.256859E-02 | | | 15 | |
| Carbon disulfide | 0.7726197 | 4.943713 | 5.798444 | 5.382923E-02 | | | 15 | |
| Carbon tetrachloride | 0.2679136 | 5.772236 | 11.26011 | 3.763941E-02 | | | 15 | |
| Chlorobenzene | 1.626743 | 6.247375 | 15.50867 | 1.878259E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.136575 | 12.25603 | 4.05075 | 7.761321E-02 | | | 15 | |
| Chloroform | 0.4102609 | 3.178745 | 8.548444 | 7.068972E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1487639 | 7.6876 | 13.11567 | 2.831501E-02 | | | 15 | |
| Chloromethane | 0.2276648 | 4.533361 | 3.351889 | 0.1851388 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.358226 | 8.38456 | 15.47567 | 1.868553E-02 | | | 15 | |
| 2-Chlorotoluene | 1.343142 | 4.69334 | 16.80522 | 1.699125E-02 | | | 15 | |
| 4-Chlorotoluene | 1.357899 | 8.127378 | 16.86222 | 0.0210047 | | | 15 | |
| Cyclohexane | 0.2868146 | 7.071416 | 11.10344 | 4.114454E-02 | | | 15 | |
| Dibromochloromethane | 0.7343881 | 7.37851 | 14.498 | 2.038201E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1573495 | 9.086748 | 17.999 | 1.942704E-02 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.6906692 | 6.011137 | 14.73144 | 2.734917E-02 | | | 15 | |
| Dibromomethane | 0.1768221 | 3.662959 | 12.26744 | 3.079701E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.056748 | 4.719013 | 17.66033 | 1.217516E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.094328 | 6.392817 | 17.351 | 1.702519E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.157104 | 11.35253 | 17.39611 | 2.310506E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.224461 | 7.777915 | 3.164444 | 0.1567193 | 0.9997794 | | 0.995 | |
| 1,1-Dichloroethane | 0.4233929 | 3.852676 | 6.929333 | 5.766121E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.2732127 | 4.979538 | 10.278 | 6.273465E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2255965 | 2.433535 | 5.305222 | 0.1119123 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2774913 | 4.918828 | 8.094667 | 5.817293E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2597497 | 3.773239 | 6.48 | 8.829922E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2686205 | 3.882943 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2331725 | 2.515092 | 12.33544 | 2.167003E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.9185418 | 5.439147 | 14.269 | 2.048293E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.2659142 | 4.514366 | 8.743333 | 8.804082E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.2914419 | 5.221887 | 10.97411 | 0.0500267 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3482888 | 6.389209 | 13.35244 | 2.369358E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7769797 | 9.251968 | 13.86111 | 4.045963E-02 | | | 15 | |
| Diisopropyl Ether | 0.854156 | 5.083156 | 7.850333 | 8.818108E-02 | | | 15 | |
| Ethylbenzene | 2.383883 | 5.783688 | 15.674 | 1.935092E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.6745049 | 5.034467 | 8.780778 | 9.038613E-02 | | | 15 | |
| Ethyl Methacrylate | 0.7225211 | 13.76591 | 14.35022 | 2.645229E-02 | | | 15 | |
| Hexachlorobutadiene | 0.2603432 | 11.89493 | 19.34811 | 1.207234E-02 | | | 15 | |
| 2-Hexanone | 0.3551468 | 11.84673 | 14.46544 | 4.641752E-02 | | | 15 | |
| Iodomethane | 0.3888302 | 22.59283 | 5.351111 | 7.955871E-02 | 0.9989867 | | 0.995 | |
| Isopropylbenzene | 1.917265 | 6.129876 | 16.414 | 1.366668E-02 | | | 15 | |
| p-Isopropyltoluene | 1.255108 | 7.431759 | 17.39944 | 2.517309E-02 | | | 15 | |
| Methylene chloride | 0.2879524 | 5.828811 | 5.501333 | 9.345302E-02 | | | 15 | |
| Methyl Acetate | 0.20594 | 4.133282 | 5.540667 | 0.1281724 | | | 15 | |
| Methylcyclohexane | 0.2253353 | 2.575007 | 13.09289 | 3.933038E-02 | | | 15 | |
| Naphthalene | 1.417306 | 6.665996 | 19.32067 | 1.136041E-02 | | | 15 | |
| Methyl Methacrylate | 0.1836272 | 13.14786 | 12.78578 | 6.663479E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.2009551 | 7.228209 | 13.52167 | 0.0254952 | | | 15 | |
| Methyl t-Butyl Ether | 0.596171 | 5.584011 | 6.691778 | 7.990925E-02 | | | 15 | |
| n-Propylbenzene | 2.001293 | 6.77353 | 16.72956 | 0.0224652 | | | 15 | |
| Styrene | 1.638556 | 7.31779 | 16.08856 | 1.029711E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6466982 | 6.856913 | 16.15533 | 1.338021E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6133557 | 5.83761 | 15.45256 | 1.691596E-02 | | | 15 | |
| tert-Butyl alcohol | 2.344623E-02 | 7.278473 | 5.314889 | 0.1563845 | | | 15 | |
| Tetrachloroethene | 0.7309561 | 5.286144 | 14.91456 | 1.413254E-02 | | | 15 | |
| Toluene | 1.363325 | 6.6632 | 14.19011 | 1.729517E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.6001166 | 3.890404 | 19.527 | 1.278597E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.6583787 | 4.045397 | 19.09289 | 1.032949E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.5040212 | 5.521156 | 14.007 | 2.384727E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3016893 | 4.179094 | 10.529 | 4.744627E-02 | | | 15 | |
| Tetrahydrofuran | 6.538618E-02 | 5.631098 | 9.373143 | 0.1542967 | | | 15 | |
| Trichloroethene | 0.238184 | 3.372401 | 12.41433 | 0.019625 | | | 15 | |
| Trichlorofluoromethane | 0.339243 | 6.312842 | 4.652778 | 0.1167494 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1954897 | 6.78891 | 16.25944 | 0.0241375 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.339339 | 6.632903 | 16.927 | 0.0213542 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.433776 | 5.417154 | 17.20311 | 1.575506E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2354837 | 4.883444 | 5.569222 | 5.917367E-02 | | | 15 | |
| Vinyl chloride | 0.1940212 | 12.4411 | 3.516222 | 0.1544052 | | | CCC (20) | |
| m,p-Xylene | 1.742223 | 9.298898 | 15.832 | 1.472031E-02 | | | 15 | |
| o-Xylene | 1.91167 | 8.136781 | 16.14311 | 2.156804E-03 | | | 15 | |
| Vinyl acetate | 0.2689634 | 16.44563 | 7.1815 | 0.1221153 | 0.9992009 | | 0.995 | |
| Xylenes (total) | 1.798705 | 8.683755 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3125949 | 2.153483 | 8.840222 | 4.694645E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 6.398003E-02 | 1.967422 | 10.07556 | 5.066511E-02 | | | 15 | |
| Toluene-d8 | 2.337958 | 4.966846 | 14.12222 | 1.973727E-02 | | | 15 | |
| tert-Amyl alcohol | 1.493481E-02 | 11.25626 | 9.834143 | 0.1522273 | | | 15 | |
| tert-Amyl ethyl ether | 0.5264827 | 6.213158 | 13.01056 | 7.748973E-03 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA4 | Calibration: | 1084001 |
| Lab File ID: | 0322ICV2.D | Calibration Date: | 03/22/11 12:12 |
| Sequence: | 1C08402 | Injection Date: | 03/22/11 |
| Lab Sample ID: | 1C08402-ICV2 | Injection Time: | 17:09 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 102.3 | 0.8598124 | 0.8792613 | | 2.3 | 20 |
| Ethylbenzene | A | 100.0 | 99.95 | 2.383883 | 2.3828 | | -0.05 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 98.38 | 0.596171 | 0.586524 | | -1.6 | 20 |
| Toluene | A | 100.0 | 104.6 | 1.363325 | 1.426164 | | 4.6 | 20 |
| Xylenes (total) | A | 300.0 | 287.7 | 1.798705 | 1.725422 | | -4.1 | 20 |
| Bromofluorobenzene | A | 30.00 | 31.02 | 0.9203766 | 0.9515789 | | 3.4 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.47 | 0.3125949 | 0.3174666 | | 1.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.59 | 6.398003E-02 | 6.524683E-02 | | 2.0 | 20 |
| Toluene-d8 | A | 30.00 | 32.22 | 2.337958 | 2.511083 | | 7.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08702 | Instrument: | MS-VOA4 |
| Calibration: | 1084001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08702-TUN1 | 0325TU1.D | 03/25/11 07:11 |
| Calibration Check | 1C08702-CCV1 | 0325CCV1.D | 03/25/11 07:41 |
| LCS | 1C25005-BS1 | 0325LS1.D | 03/25/11 08:21 |
| Blank | 1C25005-BLK1 | 0325BL1.D | 03/25/11 09:49 |
| TripBlank #9482 | 1103202-05 | 0320205.D | 03/25/11 11:48 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0325TU1.D | Injection Date: | 03/25/11 |
| Instrument ID: | MS-VOA4 | Injection Time: | 07:11 |
| Sequence: | 1C08702 | Lab Sample ID: | 1C08702-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 16.9 | PASS |
| 75 | 30 - 60% of 95 | 41.8 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.09 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 82.5 | PASS |
| 175 | 5 - 9% of 174 | 7.75 | PASS |
| 176 | 95 - 101% of 174 | 97.1 | PASS |
| 177 | 5 - 9% of 176 | 7.01 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA4 | Calibration: | 1084001 |
| Lab File ID: | 0325CCV1.D | Calibration Date: | 03/22/11 12:12 |
| Sequence: | 1C08702 | Injection Date: | 03/25/11 |
| Lab Sample ID: | 1C08702-CCV1 | Injection Time: | 07:41 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 112.0 | 0.8598124 | 0.9632004 | | 12.0 | 20 |
| Ethylbenzene | A | 100.0 | 104.2 | 2.383883 | 2.483259 | | 4.2 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 112.8 | 0.596171 | 0.6722639 | | 12.8 | 20 |
| Toluene | A | 100.0 | 108.1 | 1.363325 | 1.474208 | | 8.1 | 20 |
| Xylenes (total) | A | 300.0 | 297.1 | 1.798705 | 1.782099 | | -0.9 | 20 |
| Bromofluorobenzene | A | 30.00 | 31.74 | 0.9203766 | 0.9738502 | | 5.8 | 20 |
| Dibromofluoromethane | A | 30.00 | 33.70 | 0.3125949 | 0.3511246 | | 12.3 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 31.58 | 6.398003E-02 | 6.734123E-02 | | 5.3 | 20 |
| Toluene-d8 | A | 30.00 | 31.84 | 2.337958 | 2.481349 | | 6.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C25005 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| TripBlank #9482 | 1103202-05 | 03/25/11 00:00 | 5.00 | 5.00 |
| Blank | 1C25005-BLK1 | 03/25/11 00:00 | 5.00 | 5.00 |
| LCS | 1C25005-BS1 | 03/25/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C25005-BLK1 | File ID: | 0325BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/25/11 09:49 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1C25005 Sequence: 1C08702 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.47 | 105 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.21 | 101 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.88 | 103 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.06 | 104 | 85 - 120 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08401 | Instrument: | MS-VOA3 |
| Calibration: | 1084002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08401-TUN1 | 0324TUN1.D | 03/24/11 15:50 |
| Cal Standard | 1C08401-CAL1 | 0324CAL1.D | 03/24/11 16:28 |
| Cal Standard | 1C08401-CAL2 | 0324CAL2.D | 03/24/11 16:52 |
| Cal Standard | 1C08401-CAL3 | 0324CAL3.D | 03/24/11 17:16 |
| Cal Standard | 1C08401-CAL4 | 0324CAL4.D | 03/24/11 17:39 |
| Cal Standard | 1C08401-CAL5 | 0324CAL5.D | 03/24/11 18:03 |
| Cal Standard | 1C08401-CAL6 | 0324CAL6.D | 03/24/11 18:27 |
| Cal Standard | 1C08401-CAL7 | 0324CAL7.D | 03/24/11 18:51 |
| Cal Standard | 1C08401-CAL8 | 0324CAL8.D | 03/24/11 19:15 |
| Initial Cal Check | 1C08401-ICV2 | 0324ICV2.D | 03/24/11 20:03 |
| Cal Standard | 1C08401-CAL9 | 0324CAL9.D | 03/24/11 20:26 |
| Cal Standard | 1C08401-CALA | 0324CALA.D | 03/24/11 20:50 |
| Cal Standard | 1C08401-CALB | 0324CALB.D | 03/24/11 21:14 |
| Cal Standard | 1C08401-CALC | 0324CALC.D | 03/24/11 21:38 |
| Cal Standard | 1C08401-CALD | 0324CALD.D | 03/24/11 22:02 |
| Cal Standard | 1C08401-CALE | 0324CALE.D | 03/24/11 22:26 |
| Cal Standard | 1C08401-CALF | 0324CALF.D | 03/24/11 22:50 |
| Cal Standard | 1C08401-CALG | 0324CALG.D | 03/24/11 23:13 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0324TUN1.D | Injection Date: | 03/24/11 |
| Instrument ID: | MS-VOA3 | Injection Time: | 15:50 |
| Sequence: | 1C08401 | Lab Sample ID: | 1C08401-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 23.8 | PASS |
| 75 | 30 - 60% of 95 | 56 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.99 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 61.8 | PASS |
| 175 | 5 - 9% of 174 | 8.78 | PASS |
| 176 | 95 - 101% of 174 | 100 | PASS |
| 177 | 5 - 9% of 176 | 8.35 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.0943742 | 14.55504 | 3.405857 | 6.560833E-02 | | | 15 | |
| Acrolein | 4.645978E-02 | 11.7463 | 3.30325 | 9.426194E-02 | | | 15 | |
| Acrylonitrile | 6.917202E-02 | 9.453234 | 4.20875 | 5.161596E-02 | | | 15 | |
| Benzene | 1.22848 | 8.823366 | 7.329 | 4.221221E-03 | | | 15 | |
| Bromobenzene | 0.8773387 | 9.178822 | 12.1635 | 2.869848E-02 | | | 15 | |
| Bromochloromethane | 0.147781 | 7.557445 | 6.401 | 5.436782E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.9990058 | 8.521403 | 7.529125 | 1.268706E-02 | | | 15 | |
| Bromodichloromethane | 0.5278062 | 8.20835 | 8.33775 | 2.008301E-02 | | | 15 | |
| Bromoform | 0.5282838 | 7.984887 | 11.56 | 2.495186E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2226631 | 19.07238 | 2.5545 | 0.1088517 | 0.9987775 | | 0.995 | |
| Bromofluorobenzene | 0.9368468 | 1.806907 | 12.001 | 2.293448E-02 | | | 15 | |
| n-Butylbenzene | 3.31971 | 14.19917 | 13.625 | 0 | | | 15 | |
| 2-Butanone | 0.121756 | 10.21639 | 5.8485 | 5.138934E-02 | | | 15 | |
| sec-Butylbenzene | 3.847039 | 12.33736 | 13.07243 | 1.527649E-02 | | | 15 | |
| tert-Butylbenzene | 2.893854 | 10.63482 | 12.83625 | 2.351397E-02 | | | 15 | |
| Carbon disulfide | 0.9327312 | 7.187628 | 4.38325 | 4.431978E-02 | | | 15 | |
| Carbon tetrachloride | 0.6513402 | 9.425426 | 7.292 | 1.851225E-02 | | | 15 | |
| Chlorobenzene | 1.669366 | 8.98818 | 10.82325 | 2.574228E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.2402181 | 10.7084 | 2.67725 | 0.116152 | | | 15 | |
| Chloroform | 0.7058011 | 9.900754 | 6.376 | 5.352377E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.113231 | 8.998339 | 8.71 | 2.150294E-02 | | | 15 | |
| Chloromethane | 0.4201521 | 14.10686 | 2.0225 | 0.136933 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.874131 | 10.98859 | 10.79825 | 2.670176E-02 | | | 15 | |
| 2-Chlorotoluene | 2.649329 | 13.40043 | 12.39 | 2.278093E-02 | | | 15 | |
| 4-Chlorotoluene | 2.882751 | 12.52818 | 12.45475 | 0.0291512 | | | 15 | |
| Cyclohexane | 0.5127062 | 6.59691 | 7.225 | 1.525793E-02 | | | 15 | |
| Dibromochloromethane | 0.6996512 | 7.296291 | 10.042 | 1.344267E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1780558 | 9.924233 | 14.22875 | 1.652054E-02 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5598444 | 9.355849 | 10.2595 | 0.0283196 | | | 15 | |
| Dibromomethane | 0.2003264 | 9.384621 | 8.2705 | 2.913728E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.522092 | 11.1647 | 13.57638 | 5.478177E-03 | | | 15 | |
| 1,3-Dichlorobenzene | 1.616689 | 11.61485 | 13.16 | 2.805385E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.617872 | 12.36553 | 13.254 | 1.892853E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.5481369 | 22.71957 | 1.825 | 0.1693666 | 0.9976465 | | 0.995 | |
| 1,1-Dichloroethane | 0.6418416 | 7.912823 | 5.39325 | 3.600639E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.5809421 | 9.837355 | 7.1535 | 4.115623E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2667613 | 7.485975 | 3.84975 | 5.721078E-02 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3362532 | 7.16281 | 6.118 | 1.051599E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.3079811 | 6.991628 | 5.011 | 7.177771E-03 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.3221172 | 6.728325 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.3193487 | 7.657586 | 8.156 | 1.721878E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.9412625 | 9.865866 | 9.783 | 2.942164E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.6935306 | 8.295185 | 6.2275 | 1.235157E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.5400686 | 7.955368 | 7.17425 | 4.082877E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.5804352 | 8.121972 | 8.92825 | 9.121154E-03 | | | 15 | |
| trans-1,3-Dichloropropene | 1.06691 | 9.609075 | 9.412 | 0.0373864 | | | 15 | |
| Diisopropyl Ether | 0.980286 | 7.680094 | 5.77625 | 4.141182E-02 | | | 15 | |
| Ethylbenzene | 3.220098 | 14.3421 | 10.97825 | 2.321444E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 1.025267 | 8.295756 | 6.252 | 0.0139079 | | | 15 | |
| Ethyl Methacrylate | 0.7986958 | 8.94952 | 9.61 | 1.976334E-02 | | | 15 | |
| Hexachlorobutadiene | 1.006211 | 10.55602 | 15.608 | 1.826236E-02 | | | 15 | |
| 2-Hexanone | 0.388178 | 9.995251 | 9.72575 | 1.740734E-02 | | | 15 | |
| Iodomethane | 0.3423661 | 13.81851 | 4.040375 | 8.336408E-02 | | | 15 | |
| Isopropylbenzene | 2.822128 | 12.30466 | 11.891 | 1.295868E-02 | | | 15 | |
| p-Isopropyltoluene | 3.087494 | 14.19547 | 13.21763 | 1.498612E-02 | | | 15 | |
| Methylene chloride | 0.3282087 | 13.75888 | 4.33475 | 0.0532129 | | | 15 | |
| Methyl Acetate | 0.1606762 | 10.13311 | 4.195 | 0.1006344 | | | 15 | |
| Methylcyclohexane | 0.5845809 | 6.769549 | 8.491 | 3.221635E-03 | | | 15 | |
| Naphthalene | 2.152806 | 11.81131 | 15.47463 | 1.436065E-02 | | | 15 | |
| Methyl Methacrylate | 0.2740916 | 10.19149 | 8.302 | 1.929578E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.2690133 | 9.631195 | 8.853375 | 3.869204E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.9586598 | 8.092213 | 5.0065 | 5.495763E-02 | | | 15 | |
| n-Propylbenzene | 4.235081 | 14.25477 | 12.30929 | 1.511897E-02 | | | 15 | |
| Styrene | 1.938488 | 8.62221 | 11.459 | 1.493631E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.7195702 | 11.38443 | 11.818 | 1.993521E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6862618 | 7.3998 | 10.869 | 6.745998E-03 | | | 15 | |
| tert-Butyl alcohol | 3.684326E-02 | 11.62049 | 3.9875 | 0.1064662 | | | 15 | |
| Tetrachloroethene | 0.8251398 | 8.178901 | 10.15512 | 3.306485E-02 | | | 15 | |
| Toluene | 1.544 | 7.755856 | 9.40825 | 0.023762 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 1.177934 | 11.69648 | 15.766 | 9.795879E-03 | | | 15 | |
| 1,2,4-Trichlorobenzene | 1.288633 | 13.01661 | 15.32237 | 6.878807E-03 | | | 15 | |
| 1,1,2-Trichloroethane | 0.4451156 | 9.196896 | 9.567125 | 6.145799E-03 | | | 15 | |
| 1,1,1-Trichloroethane | 0.731964 | 9.629171 | 6.947375 | 4.835165E-02 | | | 15 | |
| Tetrahydrofuran | 7.523258E-02 | 14.74914 | 6.587 | 4.048346E-02 | | | 15 | |
| Trichloroethene | 0.3802286 | 8.479593 | 8.107 | 2.145052E-02 | | | 15 | |
| Trichlorofluoromethane | 0.7317943 | 8.387682 | 3.131 | 2.043875E-02 | | | 15 | |
| 1,2,3-Trichloropropane | 0.2166365 | 9.990932 | 11.94525 | 2.597326E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.977386 | 14.80154 | 12.49075 | 3.046671E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 3.107256 | 12.26285 | 12.86671 | 2.621417E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.322562 | 7.517036 | 3.92875 | 5.532812E-02 | | | 15 | |
| Vinyl chloride | 0.4593234 | 10.23728 | 2.154625 | 0.1675785 | | | CCC (20) | |
| m,p-Xylene | 2.768768 | 9.920417 | 11.09 | 0.0270077 | | | 15 | |
| o-Xylene | 2.723288 | 13.78882 | 11.48925 | 2.120329E-02 | | | 15 | |
| Vinyl acetate | 0.2979053 | 8.774438 | 5.473 | 5.751247E-03 | | | 15 | |
| Xylenes (total) | 2.695919 | 14.30374 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3028523 | 4.620275 | 6.55075 | 3.777633E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 4.935111E-02 | 8.341069 | 7.061 | 7.615443E-03 | | | 15 | |
| Toluene-d8 | 1.998002 | 3.134392 | 9.33 | 1.531626E-02 | | | 15 | |
| tert-Amyl alcohol | 2.971617E-02 | 12.06568 | 6.76 | 4.764453E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.8395449 | 8.31716 | 8.439 | 3.765604E-02 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA3 | Calibration: | 1084002 |
| Lab File ID: | 0324ICV2.D | Calibration Date: | 03/24/11 16:28 |
| Sequence: | 1C08401 | Injection Date: | 03/24/11 |
| Lab Sample ID: | 1C08401-ICV2 | Injection Time: | 20:03 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 100.8 | 1.22848 | 1.238811 | | 0.8 | 20 |
| Ethylbenzene | A | 100.0 | 97.00 | 3.220098 | 3.12354 | | -3.0 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 96.60 | 0.9586598 | 0.9260748 | | -3.4 | 20 |
| Toluene | A | 100.0 | 102.7 | 1.544 | 1.585579 | | 2.7 | 20 |
| Xylenes (total) | A | 300.0 | 263.1 | 2.695919 | 2.413453 | | -10.5 | 20 |
| Bromofluorobenzene | A | 30.00 | 29.38 | 0.9368468 | 0.9173731 | | -2.1 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.61 | 0.3028523 | 0.2887726 | | -4.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 27.42 | 4.935111E-02 | 4.511425E-02 | | -8.6 | 20 |
| Toluene-d8 | A | 30.00 | 30.50 | 1.998002 | 2.031021 | | 1.7 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08801 | Instrument: | MS-VOA3 |
| Calibration: | 1084002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08801-TUN1 | 0328TU1.D | 03/28/11 09:33 |
| Calibration Check | 1C08801-CCV1 | 0328CCV1.D | 03/28/11 10:10 |
| LCS | 1C28001-BS1 | 0328LS1.D | 03/28/11 10:34 |
| Blank | 1C28001-BLK1 | 0328BL1.D | 03/28/11 11:45 |
| 05-SS-001-0204 | 1103202-01 | 0320201.D | 03/28/11 12:33 |
| 05-SS-002-0204 | 1103202-02 | 0320202.D | 03/28/11 12:57 |
| 05-SS-003-0204 | 1103202-03 | 0320203.D | 03/28/11 13:21 |
| 05-SS-004-0204 | 1103202-04 | 0320204.D | 03/28/11 13:45 |
| 05-SS-005-0204 | 1103208-01 | 0320801.D | 03/28/11 14:09 |
| 05-SS-005-0204D | 1103208-02 | 0320802.D | 03/28/11 14:33 |
| 05-SS-006-0204 | 1103208-07 | 0320807.D | 03/28/11 14:57 |
| 05-SS-007-0204 | 1103208-08 | 0320808.D | 03/28/11 15:21 |
| 05-SS-008-0204 | 1103208-09 | 0320809.D | 03/28/11 15:45 |
| 05-SS-009-0204 | 1103208-10 | 0320810.D | 03/28/11 16:09 |
| 05-SS-010-0204 | 1103208-11 | 0320811.D | 03/28/11 16:33 |
| 05-SS-011-0204 | 1103208-12 | 0320812.D | 03/28/11 16:57 |
| 05-SS-012-0204 | 1103208-13 | 0320813.D | 03/28/11 17:21 |
| LCS Dup | 1C28001-BSD1 | 0328LSD1.D | 03/28/11 17:45 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0328TU1.D | Injection Date: | 03/28/11 |
| Instrument ID: | MS-VOA3 | Injection Time: | 09:33 |
| Sequence: | 1C08801 | Lab Sample ID: | 1C08801-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 20.4 | PASS |
| 75 | 30 - 60% of 95 | 54.9 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.1 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 82.8 | PASS |
| 175 | 5 - 9% of 174 | 7.83 | PASS |
| 176 | 95 - 101% of 174 | 98.9 | PASS |
| 177 | 5 - 9% of 176 | 8.08 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA3 | Calibration: | 1084002 |
| Lab File ID: | 0328CCV1.D | Calibration Date: | 03/24/11 16:28 |
| Sequence: | 1C08801 | Injection Date: | 03/28/11 |
| Lab Sample ID: | 1C08801-CCV1 | Injection Time: | 10:10 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 97.23 | 1.22848 | 1.194483 | | -2.8 | 20 |
| Ethylbenzene | A | 100.0 | 100.7 | 3.220098 | 3.241409 | | 0.7 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 91.77 | 0.9586598 | 0.8798067 | | -8.2 | 20 |
| Toluene | A | 100.0 | 107.4 | 1.544 | 1.658458 | | 7.4 | 20 |
| Xylenes (total) | A | 300.0 | 272.9 | 2.695919 | 2.503374 | | -7.1 | 20 |
| Bromofluorobenzene | A | 30.00 | 31.48 | 0.9368468 | 0.9832493 | | 5.0 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.40 | 0.3028523 | 0.2866571 | | -5.3 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 27.60 | 4.935111E-02 | 4.540624E-02 | | -8.0 | 20 |
| Toluene-d8 | A | 30.00 | 31.24 | 1.998002 | 2.080366 | | 4.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C28001 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-001-0204 | 1103202-01 | 03/28/11 00:00 | 4.74 | 5.00 |
| 05-SS-002-0204 | 1103202-02 | 03/28/11 00:00 | 6.35 | 5.00 |
| 05-SS-003-0204 | 1103202-03 | 03/28/11 00:00 | 5.87 | 5.00 |
| 05-SS-004-0204 | 1103202-04 | 03/28/11 00:00 | 4.63 | 5.00 |
| 05-SS-005-0204 | 1103208-01 | 03/28/11 00:00 | 4.81 | 5.00 |
| 05-SS-005-0204D | 1103208-02 | 03/28/11 00:00 | 4.98 | 5.00 |
| 05-SS-006-0204 | 1103208-07 | 03/28/11 00:00 | 4.74 | 5.00 |
| 05-SS-007-0204 | 1103208-08 | 03/28/11 00:00 | 5.35 | 5.00 |
| 05-SS-008-0204 | 1103208-09 | 03/28/11 00:00 | 5.01 | 5.00 |
| 05-SS-009-0204 | 1103208-10 | 03/28/11 00:00 | 5.06 | 5.00 |
| 05-SS-010-0204 | 1103208-11 | 03/28/11 00:00 | 4.96 | 5.00 |
| 05-SS-011-0204 | 1103208-12 | 03/28/11 00:00 | 5.21 | 5.00 |
| 05-SS-012-0204 | 1103208-13 | 03/28/11 00:00 | 4.71 | 5.00 |
| Blank | 1C28001-BLK1 | 03/28/11 00:00 | 5.00 | 5.00 |
| LCS | 1C28001-BS1 | 03/28/11 00:00 | 5.00 | 5.00 |
| LCS Dup | 1C28001-BSD1 | 03/28/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |

| | | | | | |
|---|---|---|---|---|---|
| Matrix: | | Laboratory ID: | 1C28001-BLK1 | File ID: | 0328BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/28/11 11:45 |
| Solids: | | Preparation: | 5035 | Dilution: | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Batch: | 1C28001 | Sequence: | 1C08801 | Calibration: | 1084002 | Instrument: | MS-VOA3 |

| CAS NO. | COMPOUND | CONC. (mg/Kg wet) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03046 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.02940 | 98.0 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03134 | 104 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03130 | 104 | 85 - 115 | |

# HOLDING TIME SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-001-0204 | 03/22/11 11:25 | 03/23/11 08:45 | 03/24/11 11:55 | 2.06 | 14.00 | 03/25/11 17:10 | 1.22 | 40.00 | |
| 05-SS-002-0204 | 03/22/11 14:05 | 03/23/11 08:45 | 03/24/11 11:55 | 1.95 | 14.00 | 03/25/11 17:37 | 1.24 | 40.00 | |
| 05-SS-003-0204 | 03/22/11 14:48 | 03/23/11 08:45 | 03/24/11 11:55 | 1.92 | 14.00 | 03/25/11 18:04 | 1.26 | 40.00 | |
| 05-SS-004-0204 | 03/22/11 15:33 | 03/23/11 08:45 | 03/24/11 11:55 | 1.89 | 14.00 | 03/25/11 18:31 | 1.28 | 40.00 | |
| 05-SS-005-0204 | 03/23/11 07:34 | 03/24/11 08:45 | 03/30/11 18:45 | 7.47 | 14.00 | 03/31/11 14:37 | 0.83 | 40.00 | |
| 05-SS-005-0204D | 03/23/11 07:34 | 03/24/11 08:45 | 03/30/11 18:45 | 7.47 | 14.00 | 03/31/11 15:59 | 0.88 | 40.00 | |
| 05-MW-005 | 03/23/11 08:15 | 03/24/11 08:45 | 03/25/11 12:10 | 2.16 | 7.00 | 03/28/11 14:57 | 3.12 | 40.00 | |
| 05-MW-005-D | 03/23/11 08:15 | 03/24/11 08:45 | 03/25/11 12:10 | 2.16 | 7.00 | 03/28/11 16:20 | 3.17 | 40.00 | |
| 05-SS-006-0204 | 03/23/11 09:57 | 03/24/11 08:45 | 03/30/11 18:45 | 7.37 | 14.00 | 03/31/11 16:27 | 0.90 | 40.00 | |
| 05-SS-007-0204 | 03/23/11 10:27 | 03/24/11 08:45 | 03/30/11 18:45 | 7.35 | 14.00 | 03/31/11 16:54 | 0.92 | 40.00 | |
| 05-SS-008-0204 | 03/23/11 11:20 | 03/24/11 08:45 | 03/30/11 18:45 | 7.31 | 14.00 | 03/31/11 17:22 | 0.94 | 40.00 | |
| 05-SS-009-0204 | 03/23/11 12:37 | 03/24/11 08:45 | 03/30/11 18:45 | 7.26 | 14.00 | 03/31/11 17:49 | 0.96 | 40.00 | |
| 05-SS-010-0204 | 03/23/11 13:37 | 03/24/11 08:45 | 03/30/11 18:45 | 7.21 | 14.00 | 03/31/11 18:16 | 0.98 | 40.00 | |
| 05-SS-011-0204 | 03/23/11 14:15 | 03/24/11 08:45 | 03/30/11 18:45 | 7.19 | 14.00 | 03/31/11 18:43 | 1.00 | 40.00 | |
| 05-SS-012-0204 | 03/23/11 15:00 | 03/24/11 08:45 | 03/30/11 18:45 | 7.16 | 14.00 | 03/31/11 19:11 | 1.02 | 40.00 | |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C23013 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-001-0204 | 1103202-01 | 03/24/11 11:55 | 15.30 | 1.00 |
| 05-SS-002-0204 | 1103202-02 | 03/24/11 11:55 | 15.40 | 1.00 |
| 05-SS-003-0204 | 1103202-03 | 03/24/11 11:55 | 15.60 | 1.00 |
| 05-SS-004-0204 | 1103202-04 | 03/24/11 11:55 | 15.40 | 1.00 |
| Blank | 1C23013-BLK1 | 03/24/11 11:55 | 15.00 | 1.00 |
| LCS | 1C23013-BS1 | 03/24/11 11:55 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C23013-BLK1 | File ID: | C23013B1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/25/11 09:53 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1C23013 Sequence: 1C08703 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.380 | 71.4 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 2.566 | 77.0 | 14 - 129 | |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C24017 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-005 | 1103208-03 | 03/25/11 12:10 | 1,020.00 | 1.00 |
| 05-MW-005-D | 1103208-04 | 03/25/11 12:10 | 850.00 | 1.00 |
| Blank | 1C24017-BLK1 | 03/25/11 12:10 | 1,000.00 | 1.00 |
| LCS | 1C24017-BS1 | 03/25/11 12:10 | 1,000.00 | 1.00 |
| 05-MW-005 | 1C24017-MS1 | 03/25/11 12:10 | 1,000.00 | 1.00 |
| 05-MW-005 | 1C24017-MSD1 | 03/25/11 12:10 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C24017-BLK1 | File ID: | C24017B1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/28/11 10:45 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1C24017 Sequence: 1C08803 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | 0.228 | 0.0500 | 0.100 | 0.200 | |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 35.94 | 71.9 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 47.70 | 95.4 | 34 - 167 | |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C25007 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-005-0204 | 1103208-01 | 03/30/11 18:45 | 15.00 | 1.00 |
| 05-SS-005-0204D | 1103208-02 | 03/30/11 18:45 | 15.70 | 1.00 |
| 05-SS-006-0204 | 1103208-07 | 03/30/11 18:45 | 15.40 | 1.00 |
| 05-SS-007-0204 | 1103208-08 | 03/30/11 18:45 | 15.40 | 1.00 |
| 05-SS-008-0204 | 1103208-09 | 03/30/11 18:45 | 15.20 | 1.00 |
| 05-SS-009-0204 | 1103208-10 | 03/30/11 18:45 | 15.00 | 1.00 |
| 05-SS-010-0204 | 1103208-11 | 03/30/11 18:45 | 15.00 | 1.00 |
| 05-SS-011-0204 | 1103208-12 | 03/30/11 18:45 | 15.50 | 1.00 |
| 05-SS-012-0204 | 1103208-13 | 03/30/11 18:45 | 15.70 | 1.00 |
| Blank | 1C25007-BLK1 | 03/30/11 18:45 | 15.00 | 1.00 |
| LCS | 1C25007-BS1 | 03/30/11 18:45 | 15.00 | 1.00 |
| 05-SS-005-0204 | 1C25007-MS1 | 03/30/11 18:45 | 15.00 | 1.00 |
| 05-SS-005-0204 | 1C25007-MSD1 | 03/30/11 18:45 | 15.30 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C25007-BLK1 | File ID: | C25007B1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/31/11 14:10 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.174 | 95.2 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 3.228 | 96.9 | 14 - 129 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C06115 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C06115-TUN1 | SEQ-TUN1.D | 02/28/11 19:40 |
| Cal Standard | 1C06115-CAL1 | SEQ-CAL1.D | 02/28/11 19:58 |
| Cal Standard | 1C06115-CAL2 | SEQ-CAL2.D | 02/28/11 20:24 |
| Cal Standard | 1C06115-CAL3 | SEQ-CAL3.D | 02/28/11 20:50 |
| Cal Standard | 1C06115-CAL4 | SEQ-CAL4.D | 02/28/11 21:16 |
| Cal Standard | 1C06115-CAL5 | SEQ-CAL5.D | 02/28/11 21:42 |
| Cal Standard | 1C06115-CAL6 | SEQ-CAL6.D | 02/28/11 22:08 |
| Cal Standard | 1C06115-CAL7 | SEQ-CAL7.D | 02/28/11 22:35 |
| Cal Standard | 1C06115-CAL8 | SEQ-CAL8.D | 02/28/11 23:01 |
| MS Tune | 1C06115-TUN2 | SEQ-TUN1.D | 03/01/11 12:01 |
| Initial Cal Check | 1C06115-ICV1 | SEQ-ICV1.D | 03/01/11 12:19 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 02/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 19:40 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 54 | PASS |
| 68 | Less than 2% of 69 | 1.39 | PASS |
| 69 | Less than 200% of 198 | 52.7 | PASS |
| 70 | Less than 2% of 69 | 0.407 | PASS |
| 127 | 40 - 60% of 198 | 57.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 25.3 | PASS |
| 365 | 1 - 200% of 198 | 3.37 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 20.3 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/01/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:01 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.55 | PASS |
| 69 | Less than 200% of 198 | 50.4 | PASS |
| 70 | Less than 2% of 69 | 0.486 | PASS |
| 127 | 40 - 60% of 198 | 56.1 | PASS |
| 197 | Less than 1% of 198 | 1 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.03 | PASS |
| 275 | 10 - 30% of 198 | 25.6 | PASS |
| 365 | 1 - 200% of 198 | 3.45 | PASS |
| 441 | 0.001 - 100% of 443 | 82.1 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1C06115 | Injection Date: | 03/01/11 |
| Lab Sample ID: | 1C06115-ICV1 | Injection Time: | 12:19 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.234 | 0.8277096 | 0.8665216 | | 4.7 | 20 |
| Acenaphthylene | A | 5.000 | 5.787 | 1.235702 | 1.430186 | | 15.7 | 20 |
| Anthracene | A | 5.000 | 5.426 | 1.13295 | 1.229415 | | 8.5 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.970 | 0.8691476 | 0.9136814 | | -0.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.399 | 1.056815 | 1.141205 | | 8.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.866 | 1.338014 | 1.302123 | | -2.7 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.830 | 0.9482109 | 0.9159273 | | -3.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.796 | 1.2951 | 1.501354 | | 15.9 | 20 |
| Chrysene | A | 5.000 | 5.406 | 0.8791148 | 0.9505258 | | 8.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.789 | 0.8237431 | 0.7889492 | | -4.2 | 20 |
| Fluoranthene | A | 5.000 | 5.284 | 1.197097 | 1.265188 | | 5.7 | 20 |
| Fluorene | A | 5.000 | 5.335 | 0.7884623 | 0.8413243 | | 6.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.885 | 1.067942 | 1.043478 | | -2.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.030 | 0.8735331 | 0.8786867 | | 0.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.052 | 0.8753044 | 0.88448 | | 1.0 | 20 |
| Naphthalene | A | 5.000 | 5.217 | 1.363682 | 1.422778 | | 4.3 | 20 |
| Phenanthrene | A | 5.000 | 5.384 | 1.17432 | 1.264507 | | 7.7 | 20 |
| Pyrene | A | 5.000 | 5.486 | 1.206692 | 1.324032 | | 9.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.477 | 0.8894126 | 0.974327 | | 9.5 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.816 | 0.7416898 | 0.8626973 | | 16.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08703 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08703-TUN1 | SEQ-TUN1.D | 03/25/11 08:37 |
| Calibration Check | 1C08703-CCV1 | SEQ-CCV1.D | 03/25/11 08:56 |
| LCS | 1C23013-BS1 | C23013L1.D | 03/25/11 09:25 |
| Blank | 1C23013-BLK1 | C23013B1.D | 03/25/11 09:53 |
| 05-SS-001-0204 | 1103202-01 | 0320201.D | 03/25/11 17:10 |
| 05-SS-002-0204 | 1103202-02 | 0320202.D | 03/25/11 17:37 |
| 05-SS-003-0204 | 1103202-03 | 0320203.D | 03/25/11 18:04 |
| 05-SS-004-0204 | 1103202-04 | 0320204.D | 03/25/11 18:31 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/25/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 08:37 |
| Sequence: | 1C08703 | Lab Sample ID: | 1C08703-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 57.8 | PASS |
| 68 | Less than 2% of 69 | 1.47 | PASS |
| 69 | Less than 200% of 198 | 58.1 | PASS |
| 70 | Less than 2% of 69 | 0.378 | PASS |
| 127 | 40 - 60% of 198 | 59.9 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 24.4 | PASS |
| 365 | 1 - 200% of 198 | 3.32 | PASS |
| 441 | 0.001 - 100% of 443 | 79.8 | PASS |
| 442 | 40 - 200% of 198 | 97.7 | PASS |
| 443 | 17 - 23% of 442 | 20.2 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1C08703 | Injection Date: | 03/25/11 |
| Lab Sample ID: | 1C08703-CCV1 | Injection Time: | 08:56 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.060 | 0.8277096 | 0.8376472 | | 1.2 | 20 |
| Acenaphthylene | A | 5.000 | 5.117 | 1.235702 | 1.264604 | | 2.3 | 20 |
| Anthracene | A | 5.000 | 5.025 | 1.13295 | 1.138716 | | 0.5 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.950 | 0.8691476 | 0.9097996 | | -1.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.124 | 1.056815 | 1.083109 | | 2.5 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.480 | 1.338014 | 1.4666 | | 9.6 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.315 | 0.9482109 | 0.8182433 | | -13.7 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.125 | 1.2951 | 1.327498 | | 2.5 | 20 |
| Chrysene | A | 5.000 | 5.210 | 0.8791148 | 0.9160837 | | 4.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.571 | 0.8237431 | 0.7530733 | | -8.6 | 20 |
| Fluoranthene | A | 5.000 | 4.944 | 1.197097 | 1.183643 | | -1.1 | 20 |
| Fluorene | A | 5.000 | 4.967 | 0.7884623 | 0.7833291 | | -0.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.508 | 1.067942 | 0.9627916 | | -9.8 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.801 | 0.8735331 | 0.8387622 | | -4.0 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.614 | 0.8753044 | 0.8078264 | | -7.7 | 20 |
| Naphthalene | A | 5.000 | 4.384 | 1.363682 | 1.195712 | | -12.3 | 20 |
| Phenanthrene | A | 5.000 | 4.853 | 1.17432 | 1.139764 | | -2.9 | 20 |
| Pyrene | A | 5.000 | 5.025 | 1.206692 | 1.21273 | | 0.5 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.575 | 0.8894126 | 0.813755 | | -8.5 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.002 | 0.7416898 | 0.7420299 | | 0.05 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08803 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08803-TUN1 | SEQ-TUN1.D | 03/28/11 09:27 |
| Calibration Check | 1C08803-CCV1 | SEQ-CCV1.D | 03/28/11 09:45 |
| Blank | 1C24017-BLK1 | C24017B1.D | 03/28/11 10:45 |
| LCS | 1C24017-BS1 | C2417L1R.D | 03/28/11 13:05 |
| 05-MW-005 | 1103208-03 | 0320803.D | 03/28/11 14:57 |
| 05-MW-005 | 1C24017-MS1 | 0320803M.D | 03/28/11 15:25 |
| 05-MW-005 | 1C24017-MSD1 | 0320803S.D | 03/28/11 15:52 |
| 05-MW-005-D | 1103208-04 | 0320804.D | 03/28/11 16:20 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 09:27 |
| Sequence: | 1C08803 | Lab Sample ID: | 1C08803-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 42.7 | PASS |
| 68 | Less than 2% of 69 | 1.59 | PASS |
| 69 | Less than 200% of 198 | 43.5 | PASS |
| 70 | Less than 2% of 69 | 0.455 | PASS |
| 127 | 40 - 60% of 198 | 52.1 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.76 | PASS |
| 275 | 10 - 30% of 198 | 26.4 | PASS |
| 365 | 1 - 200% of 198 | 3.62 | PASS |
| 441 | 0.001 - 100% of 443 | 79.7 | PASS |
| 442 | 40 - 200% of 198 | 123 | PASS |
| 443 | 17 - 23% of 442 | 20.3 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1C08803 | Injection Date: | 03/28/11 |
| Lab Sample ID: | 1C08803-CCV1 | Injection Time: | 09:45 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.672 | 0.8277096 | 0.7734246 | | -6.6 | 20 |
| Acenaphthylene | A | 5.000 | 4.766 | 1.235702 | 1.177947 | | -4.7 | 20 |
| Anthracene | A | 5.000 | 5.144 | 1.13295 | 1.165487 | | 2.9 | 20 |
| Benzo(a)anthracene | L | 5.000 | 5.138 | 0.8691476 | 0.9457239 | | 2.8 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.052 | 1.056815 | 1.067941 | | 1.1 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.284 | 1.338014 | 1.414076 | | 5.7 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.484 | 0.9482109 | 0.85029 | | -10.3 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.707 | 1.2951 | 1.219203 | | -5.9 | 20 |
| Chrysene | A | 5.000 | 5.379 | 0.8791148 | 0.9457055 | | 7.6 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.122 | 0.8237431 | 0.8438154 | | 2.4 | 20 |
| Fluoranthene | A | 5.000 | 5.032 | 1.197097 | 1.2049 | | 0.7 | 20 |
| Fluorene | A | 5.000 | 4.907 | 0.7884623 | 0.7737818 | | -1.9 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.851 | 1.067942 | 1.036117 | | -3.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.470 | 0.8735331 | 0.780892 | | -10.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.375 | 0.8753044 | 0.7658779 | | -12.5 | 20 |
| Naphthalene | A | 5.000 | 4.195 | 1.363682 | 1.144188 | | -16.1 | 20 |
| Phenanthrene | A | 5.000 | 4.850 | 1.17432 | 1.139092 | | -3.0 | 20 |
| Pyrene | A | 5.000 | 5.020 | 1.206692 | 1.211442 | | 0.4 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.378 | 0.8894126 | 0.7787024 | | -12.4 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.116 | 0.7416898 | 0.7589113 | | 2.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09412 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09412-TUN1 | SEQ-TUN1.D | 03/31/11 12:55 |
| Calibration Check | 1D09412-CCV1 | SEQ-CCV1.D | 03/31/11 13:15 |
| LCS | 1C25007-BS1 | C25007L1.D | 03/31/11 13:43 |
| Blank | 1C25007-BLK1 | C25007B1.D | 03/31/11 14:10 |
| 05-SS-005-0204 | 1103208-01 | 0320801.D | 03/31/11 14:37 |
| 05-SS-005-0204 | 1C25007-MS1 | 0320801M.D | 03/31/11 15:05 |
| 05-SS-005-0204 | 1C25007-MSD1 | 0320801S.D | 03/31/11 15:32 |
| 05-SS-005-0204D | 1103208-02 | 0320802.D | 03/31/11 15:59 |
| 05-SS-006-0204 | 1103208-07 | 0320807.D | 03/31/11 16:27 |
| 05-SS-007-0204 | 1103208-08 | 0320808.D | 03/31/11 16:54 |
| 05-SS-008-0204 | 1103208-09 | 0320809.D | 03/31/11 17:22 |
| 05-SS-009-0204 | 1103208-10 | 0320810.D | 03/31/11 17:49 |
| 05-SS-010-0204 | 1103208-11 | 0320811.D | 03/31/11 18:16 |
| 05-SS-011-0204 | 1103208-12 | 0320812.D | 03/31/11 18:43 |
| 05-SS-012-0204 | 1103208-13 | 0320813.D | 03/31/11 19:11 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/31/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:55 |
| Sequence: | 1D09412 | Lab Sample ID: | 1D09412-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 34 | PASS |
| 68 | Less than 2% of 69 | 1.69 | PASS |
| 69 | Less than 200% of 198 | 35.8 | PASS |
| 70 | Less than 2% of 69 | 0.514 | PASS |
| 127 | 40 - 60% of 198 | 48.1 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.73 | PASS |
| 275 | 10 - 30% of 198 | 29.7 | PASS |
| 365 | 1 - 200% of 198 | 4.51 | PASS |
| 441 | 0.001 - 100% of 443 | 83.8 | PASS |
| 442 | 40 - 200% of 198 | 154 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D09412 | Injection Date: | 03/31/11 |
| Lab Sample ID: | 1D09412-CCV1 | Injection Time: | 13:15 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.261 | 0.8277096 | 0.870867 | | 5.2 | 20 |
| Acenaphthylene | A | 5.000 | 5.390 | 1.235702 | 1.332199 | | 7.8 | 20 |
| Anthracene | A | 5.000 | 5.242 | 1.13295 | 1.187774 | | 4.8 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.902 | 0.8691476 | 0.9004898 | | -2.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.082 | 1.056815 | 1.074229 | | 1.6 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.985 | 1.338014 | 1.334033 | | -0.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.364 | 0.9482109 | 0.8276065 | | -12.7 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.007 | 1.2951 | 1.297046 | | 0.2 | 20 |
| Chrysene | A | 5.000 | 5.055 | 0.8791148 | 0.8888422 | | 1.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.311 | 0.8237431 | 0.710273 | | -13.8 | 20 |
| Fluoranthene | A | 5.000 | 5.064 | 1.197097 | 1.212537 | | 1.3 | 20 |
| Fluorene | A | 5.000 | 5.372 | 0.7884623 | 0.847197 | | 7.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.400 | 1.067942 | 0.9398346 | | -12.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.905 | 0.8735331 | 0.8569499 | | -1.9 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.921 | 0.8753044 | 0.861496 | | -1.6 | 20 |
| Naphthalene | A | 5.000 | 4.671 | 1.363682 | 1.274066 | | -6.6 | 20 |
| Phenanthrene | A | 5.000 | 5.131 | 1.17432 | 1.205175 | | 2.6 | 20 |
| Pyrene | A | 5.000 | 5.426 | 1.206692 | 1.309573 | | 8.5 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.188 | 0.8894126 | 0.9229292 | | 3.8 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.489 | 0.7416898 | 0.8142222 | | 9.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# HOLDING TIME SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-MW-005 | 03/23/11 08:15 | 03/24/11 08:45 | 04/06/11 13:34 | N/A | 14.00 | 04/06/11 21:35 | 14.56 | 14.00 | |
| 05-MW-005-D | 03/23/11 08:15 | 03/24/11 08:45 | 04/06/11 13:34 | N/A | 14.00 | 04/06/11 22:40 | 14.60 | 14.00 | |
| Equip Blank 01 | 03/23/11 07:20 | 03/24/11 08:45 | 04/06/11 13:34 | N/A | 14.00 | 04/06/11 23:01 | 14.65 | 14.00 | |

OK

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC
**SDG:** CTOJM26_001
**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTO JM26 Saufley
**Matrix:** Water
**Instrument:** GL-ECD2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0100 | 0.0300 | ug/L | SW8011 |

# PREPARATION BATCH SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06013 Batch Matrix: Water Preparation: EDB

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-005 | 1103208-03 | 04/06/11 13:34 | 44.10 | 35.00 |
| 05-MW-005-D | 1103208-04 | 04/06/11 13:34 | 43.50 | 35.00 |
| Equip Blank 01 | 1103208-05 | 04/06/11 13:34 | 41.50 | 35.00 |
| Blank | 1D06013-BLK1 | 04/06/11 13:34 | 35.00 | 35.00 |
| LCS | 1D06013-BS1 | 04/06/11 13:34 | 35.00 | 35.00 |
| 05-MW-005 | 1D06013-MS1 | 04/06/11 13:34 | 44.40 | 35.00 |
| 05-MW-005 | 1D06013-MSD1 | 04/06/11 13:34 | 44.30 | 35.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D06013-BLK1 | File ID: | 004R0201.D |
| Sampled: | | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 21:14 |
| Solids: | | Preparation: | EDB | Dilution: | |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |
| Cal Standard | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| Initial Cal Check | 0L34409-ICV1 | 010R0101.D | 12/09/10 17:04 |
| Initial Cal Check | 0L34409-ICV1 | 010F0101.D | 12/09/10 17:04 |

# ANALYSIS SEQUENCE SUMMARY
## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09807 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D09807-CCV1 | 001R0201.D | 04/06/11 20:15 |
| Calibration Check | 1D09807-CCV1 | 001F0201.D | 04/06/11 20:15 |
| LCS | 1D06013-BS1 | 003R0201.D | 04/06/11 20:53 |
| LCS | 1D06013-BS1 | 003F0201.D | 04/06/11 20:53 |
| Blank | 1D06013-BLK1 | 004R0201.D | 04/06/11 21:14 |
| 05-MW-005 | 1103208-03 | 005F0201.D | 04/06/11 21:35 |
| 05-MW-005 | 1D06013-MS1 | 006R0201.D | 04/06/11 21:57 |
| 05-MW-005 | 1D06013-MS1 | 006F0201.D | 04/06/11 21:57 |
| 05-MW-005 | 1D06013-MSD1 | 007R0201.D | 04/06/11 22:18 |
| 05-MW-005 | 1D06013-MSD1 | 007F0201.D | 04/06/11 22:18 |
| 05-MW-005-D | 1103208-04 | 008R0201.D | 04/06/11 22:40 |
| Equip Blank 01 | 1103208-05 | 009R0201.D | 04/06/11 23:01 |
| Calibration Check | 1D09807-CCV2 | 016R0201.D | 04/07/11 01:30 |
| Calibration Check | 1D09807-CCV2 | 016F0201.D | 04/07/11 01:30 |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 17489.79 | 18.96825 | 1.543 | 1.749237E-02 | | 0.9996372 | CCC () | * |
| 1,2-Dibromoethane [2C] | 37183.36 | 15.05167 | 0.583 | 2.248094E-02 | | 0.9995717 | CCC () | * |
| 1,2-Dibromo-3-chloropropane | 35650.07 | 32.01128 | 6.973 | 2.748517E-02 | | 0.9987968 | CCC () | * |
| 1,2-Dibromo-3-chloropropane [2C] | 100449.9 | 35.64558 | 4.139286 | 5.910871E-02 | | 0.9986728 | CCC () | * |

# INITIAL CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 010F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 0L34409 | Injection Date: | 12/09/10 |
| Lab Sample ID: | 0L34409-ICV1 | Injection Time: | 17:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4746 | 17489.79 | 14620 | | -5.1 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4584 | 37183.36 | 30824 | | -8.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 001F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/06/11 |
| Lab Sample ID: | 1D09807-CCV1 | Injection Time: | 20:15 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5866 | 17489.79 | 17802 | | 17.3 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5525 | 37183.36 | 36050 | | 10.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 016F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09807-CCV2 | Injection Time: | 01:30 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5615 | 17489.79 | 17096 | | 12.3 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5900 | 37183.36 | 38070 | | 18.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-001-0204 | 03/22/11 11:25 | 03/23/11 08:45 | 03/29/11 17:00 | 7.27 | 14.00 | 03/30/11 21:29 | 1.19 | 40.00 | |
| 05-SS-002-0204 | 03/22/11 14:05 | 03/23/11 08:45 | 03/29/11 17:00 | 7.16 | 14.00 | 03/30/11 23:36 | 1.28 | 40.00 | |
| 05-SS-003-0204 | 03/22/11 14:48 | 03/23/11 08:45 | 03/29/11 17:00 | 7.13 | 14.00 | 03/31/11 00:18 | 1.30 | 40.00 | |
| 05-SS-004-0204 | 03/22/11 15:33 | 03/23/11 08:45 | 03/29/11 17:00 | 7.10 | 14.00 | 03/31/11 01:01 | 1.33 | 40.00 | |
| 05-SS-005-0204 | 03/23/11 07:34 | 03/24/11 08:45 | 03/29/11 17:00 | 6.39 | 14.00 | 03/31/11 01:43 | 1.36 | 40.00 | |
| 05-SS-005-0204D | 03/23/11 07:34 | 03/24/11 08:45 | 03/29/11 17:00 | 6.39 | 14.00 | 03/31/11 02:26 | 1.39 | 40.00 | |
| 05-MW-005 | 03/23/11 08:15 | 03/24/11 08:45 | 03/29/11 13:53 | 6.23 | 7.00 | 03/30/11 15:10 | 1.05 | 40.00 | |
| 05-MW-005-D | 03/23/11 08:15 | 03/24/11 08:45 | 03/29/11 13:53 | 6.23 | 7.00 | 03/30/11 17:17 | 1.14 | 40.00 | |
| 05-SS-006-0204 | 03/23/11 09:57 | 03/24/11 08:45 | 03/29/11 17:00 | 6.29 | 14.00 | 03/31/11 03:08 | 1.42 | 40.00 | |
| 05-SS-007-0204 | 03/23/11 10:27 | 03/24/11 08:45 | 03/29/11 17:00 | 6.27 | 14.00 | 03/31/11 03:50 | 1.45 | 40.00 | |
| 05-SS-008-0204 | 03/23/11 11:20 | 03/24/11 08:45 | 03/29/11 17:00 | 6.24 | 14.00 | 03/31/11 04:33 | 1.48 | 40.00 | |
| 05-SS-009-0204 | 03/23/11 12:37 | 03/24/11 08:45 | 03/29/11 17:00 | 6.18 | 14.00 | 03/31/11 05:15 | 1.51 | 40.00 | |
| 05-SS-010-0204 | 03/23/11 13:37 | 03/24/11 08:45 | 03/29/11 17:00 | 6.14 | 14.00 | 03/31/11 06:39 | 1.57 | 40.00 | |
| 05-SS-011-0204 | 03/23/11 14:15 | 03/24/11 08:45 | 03/29/11 17:00 | 6.11 | 14.00 | 03/31/11 07:22 | 1.60 | 40.00 | |
| 05-SS-012-0204 | 03/23/11 15:00 | 03/24/11 08:45 | 03/29/11 17:00 | 6.08 | 14.00 | 03/31/11 08:04 | 1.63 | 40.00 | |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC

**SDG:** CTOJM26_001

**Client:** Tetra Tech NUS, Inc. (T010)

**Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid

**Instrument:** GL-GCFID2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |
| | 0.170 | 0.680 | mg/L | FLPRO |
| | 0.170 | 0.510 | mg/Kg | FLPRO |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C25006 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-001-0204 | 1103202-01 | 03/29/11 17:00 | 15.10 | 2.00 |
| 05-SS-002-0204 | 1103202-02 | 03/29/11 17:00 | 15.60 | 2.00 |
| 05-SS-003-0204 | 1103202-03 | 03/29/11 17:00 | 15.10 | 2.00 |
| 05-SS-004-0204 | 1103202-04 | 03/29/11 17:00 | 15.20 | 2.00 |
| 05-SS-005-0204 | 1103208-01 | 03/29/11 17:00 | 15.10 | 2.00 |
| 05-SS-005-0204D | 1103208-02 | 03/29/11 17:00 | 15.20 | 2.00 |
| 05-SS-006-0204 | 1103208-07 | 03/29/11 17:00 | 15.40 | 2.00 |
| 05-SS-007-0204 | 1103208-08 | 03/29/11 17:00 | 15.70 | 2.00 |
| 05-SS-008-0204 | 1103208-09 | 03/29/11 17:00 | 15.10 | 2.00 |
| 05-SS-009-0204 | 1103208-10 | 03/29/11 17:00 | 15.40 | 2.00 |
| 05-SS-010-0204 | 1103208-11 | 03/29/11 17:00 | 15.00 | 2.00 |
| 05-SS-011-0204 | 1103208-12 | 03/29/11 17:00 | 15.10 | 2.00 |
| 05-SS-012-0204 | 1103208-13 | 03/29/11 17:00 | 15.40 | 2.00 |
| Blank | 1C25006-BLK1 | 03/29/11 17:00 | 15.00 | 2.00 |
| LCS | 1C25006-BS1 | 03/29/11 17:00 | 15.00 | 2.00 |
| 05-SS-001-0204 | 1C25006-MS1 | 03/29/11 17:00 | 15.00 | 2.00 |
| 05-SS-001-0204 | 1C25006-MSD1 | 03/29/11 17:00 | 15.50 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C25006-BLK1 | File ID: | 012F1201.D |
| Sampled: | | Prepared: | | Analyzed: | 03/30/11 20:05 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.220 | 96.6 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.742 | 82.2 | 35 - 140 | |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C28022 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-005 | 1103208-03 | 03/29/11 13:53 | 1,040.00 | 2.00 |
| 05-MW-005-D | 1103208-04 | 03/29/11 13:53 | 1,020.00 | 2.00 |
| Blank | 1C28022-BLK1 | 03/29/11 13:53 | 1,000.00 | 2.00 |
| LCS | 1C28022-BS1 | 03/29/11 13:53 | 1,000.00 | 2.00 |
| 05-MW-005 | 1C28022-MS1 | 03/29/11 13:53 | 1,040.00 | 2.00 |
| 05-MW-005 | 1C28022-MSD1 | 03/29/11 13:53 | 1,020.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C28022-BLK1 | File ID: | 003F0301.D |
| Sampled: | | Prepared: | | Analyzed: | 03/30/11 13:46 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1C28022 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.05395 | 108 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.04129 | 82.6 | 82 - 142 | |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| 11B0727 | FLPRO CAL5 850ppm | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| 11B0726 | FLPRO CAL4 2550ppm | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| 11B0725 | FLPRO CAL3 4250ppm | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| 11B0724 | FLPRO CAL2 5950ppm | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| 11B0723 | FLPRO CAL1 8500ppm | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| Cal Standard | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| Cal Standard | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| Cal Standard | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| Cal Standard | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| Cal Standard | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |
| Initial Cal Check | 1B05902-ICV1 | 002F0201.D | 02/27/11 14:40 |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C09042 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1C09042-CCV1 | 002F0201.D | 03/30/11 12:57 |
| Blank | 1C28022-BLK1 | 003F0301.D | 03/30/11 13:46 |
| LCS | 1C28022-BS1 | 004F0401.D | 03/30/11 14:28 |
| 05-MW-005 | 1103208-03 | 005F0501.D | 03/30/11 15:10 |
| 05-MW-005 | 1C28022-MS1 | 006F0601.D | 03/30/11 15:53 |
| 05-MW-005 | 1C28022-MSD1 | 007F0701.D | 03/30/11 16:35 |
| 05-MW-005-D | 1103208-04 | 008F0801.D | 03/30/11 17:17 |
| Calibration Check | 1C09042-CCV2 | 011F1101.D | 03/30/11 19:23 |
| Blank | 1C25006-BLK1 | 012F1201.D | 03/30/11 20:05 |
| LCS | 1C25006-BS1 | 013F1301.D | 03/30/11 20:47 |
| 05-SS-001-0204 | 1103202-01 | 014F1401.D | 03/30/11 21:29 |
| 05-SS-001-0204 | 1C25006-MS1 | 015F1501.D | 03/30/11 22:11 |
| 05-SS-001-0204 | 1C25006-MSD1 | 016F1601.D | 03/30/11 22:54 |
| 05-SS-002-0204 | 1103202-02 | 017F1701.D | 03/30/11 23:36 |
| 05-SS-003-0204 | 1103202-03 | 018F1801.D | 03/31/11 00:18 |
| 05-SS-004-0204 | 1103202-04 | 019F1901.D | 03/31/11 01:01 |
| 05-SS-005-0204 | 1103208-01 | 020F2001.D | 03/31/11 01:43 |
| 05-SS-005-0204D | 1103208-02 | 021F2101.D | 03/31/11 02:26 |
| 05-SS-006-0204 | 1103208-07 | 022F2201.D | 03/31/11 03:08 |
| 05-SS-007-0204 | 1103208-08 | 023F2301.D | 03/31/11 03:50 |
| 05-SS-008-0204 | 1103208-09 | 024F2401.D | 03/31/11 04:33 |
| 05-SS-009-0204 | 1103208-10 | 025F2501.D | 03/31/11 05:15 |
| Calibration Check | 1C09042-CCV3 | 026F2601.D | 03/31/11 05:57 |
| 05-SS-010-0204 | 1103208-11 | 027F2701.D | 03/31/11 06:39 |
| 05-SS-011-0204 | 1103208-12 | 028F2801.D | 03/31/11 07:22 |
| 05-SS-012-0204 | 1103208-13 | 029F2901.D | 03/31/11 08:04 |
| Calibration Check | 1C09042-CCV4 | 037F3701.D | 03/31/11 13:41 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1059001 | Instrument: | GL-GCFID2 | |
| Matrix: | Water | Calibration Dates: | 2/25/11 12:08 | 2/25/11 15:39 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1B05902 | Injection Date: | 02/27/11 |
| Lab Sample ID: | 1B05902-ICV1 | Injection Time: | 14:40 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4130 | 1357.428 | 1401.388 | | 3.2 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1C09042 | Injection Date: | 03/30/11 |
| Lab Sample ID: | 1C09042-CCV1 | Injection Time: | 12:57 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4382 | 1357.428 | 1399.69 | | 3.1 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 28.34 | 1856.637 | 2104.52 | | 13.4 | 25 |
| o-Terphenyl | A | 25.00 | 25.11 | 2492.101 | 2502.68 | | 0.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 011F1101.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1C09042 | Injection Date: | 03/30/11 |
| Lab Sample ID: | 1C09042-CCV2 | Injection Time: | 19:23 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4282 | 1357.428 | 1367.658 | | 0.8 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 28.50 | 1856.637 | 2116.88 | | 14.0 | 25 |
| o-Terphenyl | A | 25.00 | 24.49 | 2492.101 | 2441.72 | | -2.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 026F2601.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1C09042 | Injection Date: | 03/31/11 |
| Lab Sample ID: | 1C09042-CCV3 | Injection Time: | 05:57 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4427 | 1357.428 | 1414.041 | | 4.2 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 29.05 | 1856.637 | 2157.52 | | 16.2 | 25 |
| o-Terphenyl | A | 25.00 | 25.73 | 2492.101 | 2564.84 | | 2.9 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 037F3701.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1C09042 | Injection Date: | 03/31/11 |
| Lab Sample ID: | 1C09042-CCV4 | Injection Time: | 13:41 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4415 | 1357.428 | 1410.123 | | 3.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 29.72 | 1856.637 | 2207.16 | | 18.9 | 25 |
| o-Terphenyl | A | 25.00 | 26.52 | 2492.101 | 2643.36 | | 6.1 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# SAUFLEY FIELD
# WATER DATA
# CTOJM26_001

| FRACTION | CHEMICAL | 05-MW-005 | UNITS | 05-MW-005-D | RPD | D | |
|---|---|---|---|---|---|---|---|
| OV | TOLUENE | 0.328 J | UG/L | 0.468 J | 35.18 | 0.14 | NA |
| OV | TOTAL XYLENES | ND | UG/L | 1.07 J | 200.00 | 1.07 | NA |
| PAH | 1-METHYLNAPHTHALENE | 0.158 J | UG/L | 0.17 J | 7.32 | 0.01 | |
| PAH | 2-METHYLNAPHTHALENE | 0.323 | UG/L | 0.325 | 0.62 | 0.00 | |
| PAH | FLUORANTHENE | 0.059 J | UG/L | ND | 200.00 | 0.06 | NA |
| PAH | NAPHTHALENE | 0.677 | UG/L | 0.748 | 9.96 | 0.07 | |
| PAH | PHENANTHRENE | 0.0812 J | UG/L | ND | 200.00 | 0.08 | NA |
| PET | TPH (C08-C40) | 0.317 J | MG/L | ND | 200.00 | 0.32 | NA |

**Current RPD Quality Control Limit: 30 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **May 16, 2011** |
| **FROM:** | **MEGAN CARSON** | **COPIES:** | **DV FILE** |

**SUBJECT:** **INORGANIC DATA VALIDATION – LEAD**
**CTO JM26, SAUFLEY FIELD**
**SAMPLE DELIVERY GROUP (SDG) – CTOJM26_001**

**SAMPLES:** 3/Water/
05-MW-005 05-MW-005-D
Equip Blank 01

Overview

The sample set for Saufley Field, CTO JM26, SDG CTOJM26_001, consists of two (2) water environmental samples and one (1) equipment blank. This SDG contained one field duplicate pair: 05-MW-005/05-MW-005-D.

All samples were analyzed for lead. The samples were collected by Tetra Tech NUS on March 23rd, 2011 and analyzed by Empirical Laboratories LLC under Naval Facilities Engineering Service Center (NFESC) Quality Assurance / Quality Control (QA/QC) criteria. Metals analyses were conducted using method 6010C.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibrations
* • Laboratory Method / Preparation Blank Analyses
* • Field Duplicate Results
* • Detection Limits

* - All quality control criteria were met for this parameter.

**METALS:**

All sample results were within quality control limits.

Notes:

Positive results less the reporting limit but greater than the method detection limit were qualified as estimated (J).

Sample 05-MW-005-D was analyzed at a 5X dilution.

Executive Summary

**Laboratory Performance:** None.

**Other Factors Affecting Data Quality:** None.

The data for these analyses were reviewed with reference to "National Functional Guidelines for Inorganic Review", October 2004 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories", April, 2009.

The text of this report has been formulated to address only those problem areas affecting data quality.

Megan Carson
Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

**Data Validation Qualifier Codes:**

| | | |
|---|---|---|
| A | = | Lab Blank Contamination |
| B | = | Field Blank Contamination |
| C | = | Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.) |
| C01 | = | GC/MS Tuning Noncompliance |
| D | = | MS/MSD Recovery Noncompliance |
| E | = | LCS/LCSD Recovery Noncompliance |
| F | = | Lab Duplicate Imprecision |
| G | = | Field Duplicate Imprecision |
| H | = | Holding Time Exceedance |
| I | = | ICP Serial Dilution Noncompliance |
| J | = | GFAA PDS - GFAA MSA's $r < 0.995$ |
| K | = | ICP Interference - includes ICS % R Noncompliance |
| L | = | Instrument Calibration Range Exceedance |
| M | = | Sample Preservation Noncompliance |
| N | = | Internal Standard Noncompliance |
| N01 | = | Internal Standard Recovery Noncompliance Dioxins |
| N02 | = | Recovery Standard Noncompliance Dioxins |
| N03 | = | Clean-up Standard Noncompliance Dioxins |
| O | = | Poor Instrument Performance (e.g. base-line drifting) |
| P | = | Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics) |
| Q | = | Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.) |
| R | = | Surrogates Recovery Noncompliance |
| S | = | Pesticide/PCB Resolution |
| T | = | % Breakdown Noncompliance for DDT and Endrin |
| U | = | % Difference between columns/detectors >25% for positive results determined via GC/HPLC |
| V | = | Non-linear calibrations; correlation coefficient $r < 0.995$ |
| W | = | EMPC result |
| X | = | Signal to noise response drop |
| Y | = | Percent solids <30% |
| Z | = | Uncertainty at 2 sigma deviation is greater than sample activity |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-005 | | | 05-MW-005-D | | | Equip Blank 01 | | |
| **SDG: CTOJM26_001** | LAB_ID | 1103208-03 | | | 1103208-04 | | | 1103208-05 | | |
| **FRACTION: M** | SAMP_DATE | 3/23/2011 | | | 3/23/2011 | | | 3/23/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| LEAD | | 84.1 | | | 88.5 | | | 1.5 | U | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-MW-005**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-03 |
| Sampled: | 03/23/11 08:15 | Received: | 03/24/11 08:45 |
| % Solids: | 0.00 | | |

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 84.1 | 1.50 | 3.00 | 3.00 | 1 | | SW6010C | 1D06001 | 04/07/11 11:14 |

# ANALYSIS DATA SHEET

**05-MW-005-D**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103208-04 |
| Sampled: | 03/23/11 08:15 | Received: | 03/24/11 08:45 |
| % Solids: | 0.00 | | |

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 88.5 | 7.50 | 15.0 | 15.0 | 5 | D | SW6010C | 1D06001 | 04/07/11 11:38 |

# ANALYSIS DATA SHEET

**Equip Blank 01**

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Water
Sampled: 03/23/11 07:20
% Solids: 0.00

SDG: CTOJM26_001
Project: NAS Pensacola CTO JM26 Saufley
Laboratory ID: 1103208-05
Received: 03/24/11 08:45

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | | 1.50 | 3.00 | 3.00 | 1 | U | SW6010C | 1D06001 | 04/07/11 11:42 |

# APPENDIX C

## SUPPORT DOCUMENTATION

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

Sample volume for FLPRO and PAH was not received for sample Equip Blank 01 (1103208-05).

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
No anomalies or deviations are noted.

**SW8270C:**
The matrix spikes associated to sample 1103208-03 exceeded recovery criteria with a positive bias for 2-Methylnaphthalene and Naphthalene and exceeded relative percent difference criteria for Benzo(g,h,i)perylene, Dibenz(a,h)anthracene, and

Indeno(1,2,3-cd)pyrene.

The method blank 1C24017-BLK1 has a positive result for Benzo(a)anthracene.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
No anomalies or deviations are noted.

**SW8011:**
The matrix spike associated to sample 1103208-03 exceeded criteria with a negative bias for 1,2-Dibromoethane on both columns and the matrix spikes exceeded relative percent difference criteria on both columns for 1,2-Dibromoethane.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW6010C:**
No anomalies or deviations are noted.

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 2773 PAGE 1 OF 2

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Sanford Field | Geoff Dope | 850 385 9899 | EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M. Brock | | M. Brock | 850 294 2830 | 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 8748 4755 6066 | | Nashville TN 37228 |

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

| | DATE YEAR 2011 | TIME | SAMPLE ID | LOCATION ID | TOP DEPTH (FT) tubing @ 50' | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, QC, ETC.) | COLLECTION METHOD GRAB (G) COMP (C) | No. OF CONTAINERS | BTEX MTBE (soil) | PAH (soil) | TRPH (soil) | VOCs (H2O) | PAH (H2O) | TRPH (H2O) | EDB (H2O) | Total Pb (H2O) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONTAINER TYPE PLASTIC (P) or GLASS (G) | | | | | | | | | | G | AG | AG | G | AG | AG | AG | P | |
| PRESERVATIVE USED | | | | | | | | | | H2O meth | none | none | HCL | none | HCL | HCL | HNO3 | |
| -01 | 3/23 | 0734 | 05-SS-005-0204 | SB005 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | 3J0+1M |
| -02 | 3/23 | 0734 | 05-SS-005-0204 D | SB005 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | ↓ |
| -03 | 3/23 | 0815 | 05-MW-005 | SB005 | 50' | - | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | ✓ | ✓ | 4JHg+1CNI+2H+2HHg |
| -04 | 3/23 | 0815 | 05-MW-005-D | SB005 | ↓ | - | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | ✓ | ✓ | ↓ |
| 07 | 3/23 | 0815 | 05-MW-005-MS | SB005 | ↓ | - | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | ✓ | ✓ | ↓ |
| ↓ | 3/23 | 0815 | 05-MW-005-MSD | SB005 | ↓ | - | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | ✓ | ✓ | ↓ |
| 05 | 3/23 | 0720 | Equip Blank 01 | SB005 | ↓ | — | QC | G | 9 | — | — | — | ✓ | ✓ | ✓ | ✓ | ✓ | up to 2nd ↓ 4JHg+1CNI |
| -06 | — | 0957 | Trip Blank 9485 | — | — | — | QC | G | 2 | ✓ | — | — | ✓ | — | — | — | — | 2JHg |
| 07 | 3/23 | ~~1027~~ | 05-SS-006-0204 | SB006 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | See 01 |
| -08 | 3/23 | 1027 | 05-SS-007-0204 | SB007 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | ↓ |
| 09 | 3/23 | 1120 | 05-SS-008-0204 | SB008 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | ↓ |
| -10 | 3/23 | 1237 | 05-SS-009-0204 | SB009 | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | ↓ |
| -11 | 3/23 | 1337 | 05-SS-010-0204 | | 2' | 4' | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | ↓ |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | 3.23.11 | 1700 | 1. RECEIVED BY | 3-24-11 | 08:45 |
| 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

11

CTOJM26_001

# SAUFLEY FIELD
# WATER DATA
# CTOJM26_001

| FRACTION | CHEMICAL | 05-MW-005 | UNITS | 05-MW-005-D | RPD | D |
|---|---|---|---|---|---|---|
| M | LEAD | 84.1 | UG/L | 88.5 D | 5.10 | 4.40 |

**Current RPD Quality Control Limit: 30 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

05-MW-005-D

Sample Name: 1103208-04@5X Acquired: 4/7/2011 11:38:18 Type: Unk
Method: DuoEnviroMethodNEW(v2055) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA X5

17.7 µg/L x 5DF = 88.5 µg/L
reported as 88.5 mg/L

| Elem | Ag3280 | Al3961 | As1890 | As1972 | As2003 | B_2496 | Ba2335 | Be3130 |
|---|---|---|---|---|---|---|---|---|
| Units | ppb | ppb | ppb | ppb | ppb | ppb | ppb | ppb |
| Avg | **-.16678** | **18856.** | **32.188** | **33.773** | **30.140** | **8.2138** | **65.922** | **.40025** |
| Stddev | .02601 | 44. | 1.568 | 1.635 | 5.997 | .5876 | .308 | .01202 |
| %RSD | 15.596 | .23344 | 4.8713 | 4.8400 | 19.896 | 7.1533 | .46724 | 3.0038 |
| #1 | -.13860 | 18825. | 30.449 | 34.815 | 28.508 | 7.7438 | 65.588 | .38707 |
| #2 | -.18988 | 18906. | 32.621 | 31.889 | 25.129 | 8.8726 | 65.983 | .40309 |
| #3 | -.17187 | 18836. | 33.494 | 34.615 | 36.784 | 8.0251 | 66.195 | .41061 |

| Elem | Ca3179 | Cd2144 | Co2286 | Cr2677 | Cu2199 | Cu3247 | Fe2611 | K_7664 |
|---|---|---|---|---|---|---|---|---|
| Units | ppm | ppb | ppb | ppb | ppb | ppb | ppb | ppm |
| Avg | **2.6527** | **-.71536** | **1.0405** | **132.79** | **31.87** | **29.686** | **58022.** | **1.7264** |
| Stddev | .0070 | .03881 | .0848 | .95 | 1.20 | .123 | 221. | .0078 |
| %RSD | .26278 | 5.4250 | 8.1467 | .71880 | 3.769 | .41334 | .38029 | .45303 |
| #1 | 2.6547 | -.74515 | .94387 | 133.83 | 33.16 | 29.816 | 58276. | 1.7225 |
| #2 | 2.6449 | -.72946 | 1.1024 | 131.96 | 30.79 | 29.669 | 57883. | 1.7354 |
| #3 | 2.6584 | -.67147 | 1.0750 | 132.57 | 31.66 | 29.573 | 57906. | 1.7213 |

| Elem | Mg2790 | Mn2576 | Mo2020 | Na5895 | Ni2316 | Pb2203 | Sb2068 | Se1960 |
|---|---|---|---|---|---|---|---|---|
| Units | ppm | ppb | ppb | ppm | ppb | ppb | ppb | ppb |
| Avg | **1.4734** | **48.435** | **7.6727** | **.36422** | **60.759** | **17.702** | **.65299** | **1.7361** |
| Stddev | .0052 | .306 | .1335 | .00301 | .529 | .659 | .73832 | 2.0918 |
| %RSD | .35270 | .63221 | 1.7394 | .82609 | .87043 | 3.7246 | 113.07 | 120.49 |
| #1 | 1.4794 | 48.783 | 7.6760 | .36160 | 60.648 | 16.941 | 1.5051 | .13400 |
| #2 | 1.4712 | 48.320 | 7.8045 | .36751 | 60.294 | 18.113 | .20228 | .97174 |
| #3 | 1.4697 | 48.204 | 7.5376 | .36355 | 61.334 | 18.050 | .25164 | 4.1026 |

| Elem | Sn1899 | Sr4215 | Ti3349 | Tl1908 | V_2924 | Zn2062 |
|---|---|---|---|---|---|---|
| Units | ppb | ppb | ppb | ppb | ppb | ppb |
| Avg | **2.4920** | **29.53** | **71.332** | **.84370** | **62.712** | **58.656** |
| Stddev | .5559 | .10 | .589 | .79190 | .436 | .380 |
| %RSD | 22.307 | .3300 | .82636 | 93.860 | .69549 | .64708 |
| #1 | 2.9312 | 29.42 | 70.861 | .15281 | 63.209 | 58.229 |
| #2 | 1.8670 | 29.58 | 71.142 | .67040 | 62.395 | 58.957 |
| #3 | 2.6778 | 29.59 | 71.993 | 1.7079 | 62.532 | 58.780 |

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1103208 Number of Coolers: 1 of 3 3-24-11

Client: Tetra Tech Project: Sanfley Field

Date/Time Received: 3.24.11 0845 Date cooler(s) opened: 3.24.11

Opened By (print): Reginald Talley (signature): [signature]

Circle response below as appropriate

1. How did the samples arrive? FedEx UPS DHL Hand Delivered

EL Courier 3-24 Other: _____

If applicable, enter airbill number here: 8806

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3.23.11 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: Initial Value: 2.2 °C Correction Factor: -0.3 °C Final Value: 1.9 °C

Dates samples were logged-in: 3-24-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [initials]

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

If Non-Conformance issues were present, list by sample ID: _____

- ph<2 for all FLPRO & Metals
- did Not receive PAH or FLPRO volume for (-05)

EMPIRICAL LABORATORIES
COOLER RECEIPT FORM

LIMS Number: 1103208 Number of Coolers: 1 of 1 2 3 3-24-11

Client: Tetra Tech Project: Sanfley Field

Date/Time Received: 3.24.11 0845 Date cooler(s) opened: 3.24.11

Opened By (print): Reginald Talley (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: 8857

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3.23.11 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: Initial Value: 1.2 °C Correction Factor: -0.3 °C Final Value: 0.9 °C

Dates samples were logged-in: 3-24-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [initials]

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

If Non-Conformance issues were present, list by sample ID: _____

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103208 Number of Coolers: 3 of 3 03-24-11

Client: Tetra Tech Project: Sanflex Field

Date/Time Received: 3.24.11 0845 Date cooler(s) opened: 3.24.11

Opened By (print): Reginald Talley (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: 6066

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3.23.11 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: Initial Value: 1.8 °C Correction Factor: -0.3 °C Final Value: 1.5 °C

Dates samples were logged-in: 3-24-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: _____

# HOLDTIME

**SDG** CTOJM26_001

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| M | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| M | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 04/06/2011 | 04/07/2011 | 13 | 1 | 14 |
| M | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| EDB | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| EDB | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 04/06/2011 | 04/06/2011 | 13 | 0 | 13 |
| EDB | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| EDB | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| OV | MG/KG | 05-SS-006-0204 | 1103208-07 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-001-0204 | 1103202-01 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-002-0204 | 1103202-02 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-005-0204D | 1103208-02 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-003-0204 | 1103202-03 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-007-0204 | 1103208-08 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-008-0204 | 1103208-09 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC

**SDG:** CTOJM26_001

**Client:** Tetra Tech NUS, Inc. (T010)

**Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water

**Instrument:** ME-ICP

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Lead | 1.50 | 3.00 | ug/L | SW6010C |

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_001

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Al | Ca | Fe | Mg | Ag |
| Lead | 220.3 | 0.0002980 | 0.0000000 | 0.0000080 | 0.0003250 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_001

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | As | B | Ba | Be | Cd |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_001

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Co | Cr | Cu | K | Mn |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0022600 | 0.0000000 | 0.0000990 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_001

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Mo | Na | Ni | Pb | Sb |
| Lead | 220.3 | -0.0026440 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_001

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Se | Sn | Ti | Tl | V |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0000360 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_001

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: Zn | | | | |
|---|---|---|---|---|---|---|
| Lead | 220.3 | 0.0000000 | | | | |

Comments:

FORM XA-IN

# ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010) SDG: CTOJM26_001

Project: NAS Pensacola CTO JM26 Saufley

ICP Instrument ID: ME-ICP Date: 09/11/2009

| Analyte | Integ. Time (Sec.) | Concentration ug/L | M |
|---|---|---|---|
| Lead | 15 | 10000 | P |

# PREPARATION BATCH SUMMARY

## SW6010C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06001 Batch Matrix: Water Preparation: MET_3005A

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-005 | 1103208-03 | 04/06/11 07:37 | 50.00 | 50.00 |
| 05-MW-005-D | 1103208-04 | 04/06/11 07:37 | 50.00 | 50.00 |
| Equip Blank 01 | 1103208-05 | 04/06/11 07:37 | 50.00 | 50.00 |
| Blank | 1D06001-BLK1 | 04/06/11 07:37 | 50.00 | 50.00 |
| LCS | 1D06001-BS1 | 04/06/11 07:37 | 50.00 | 50.00 |
| 05-MW-005 | 1D06001-DUP1 | 04/06/11 07:37 | 50.00 | 50.00 |
| 05-MW-005 | 1D06001-MS1 | 04/06/11 07:37 | 50.00 | 50.00 |
| 05-MW-005 | 1D06001-MSD1 | 04/06/11 07:37 | 50.00 | 50.00 |
| 05-MW-005 | 1D06001-PS1 | 04/06/11 07:37 | 20.00 | 20.00 |

# ANALYSIS SEQUENCE SUMMARY
## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_001 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09708 | Instrument: | ME-ICP |
| Calibration: | 1097001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D09708-CAL1 | 040711A-002 | 04/07/11 08:37 |
| Cal Standard | 1D09708-CAL2 | 040711A-003 | 04/07/11 08:42 |
| Cal Standard | 1D09708-CAL3 | 040711A-004 | 04/07/11 08:46 |
| Cal Standard | 1D09708-CAL6 | 040711A-007 | 04/07/11 09:01 |
| Initial Cal Check | 1D09708-ICV1 | 040711B-001 | 04/07/11 09:46 |
| Initial Cal Blank | 1D09708-ICB1 | 040711B-002 | 04/07/11 09:53 |
| Instrument RL Check | 1D09708-CRL1 | 040711B-003 | 04/07/11 09:58 |
| Interference Check A | 1D09708-IFA1 | 040711C-001 | 04/07/11 10:21 |
| Interference Check B | 1D09708-IFB2 | 040711C-004 | 04/07/11 10:40 |
| Calibration Check | 1D09708-CCV1 | 040711C-006 | 04/07/11 10:52 |
| Calibration Blank | 1D09708-CCB1 | 040711C-007 | 04/07/11 10:59 |
| Blank | 1D06001-BLK1 | 040711C-008 | 04/07/11 11:04 |
| LCS | 1D06001-BS1 | 040711C-009 | 04/07/11 11:09 |
| 05-MW-005 | 1103208-03 | 040711C-010 | 04/07/11 11:14 |
| 05-MW-005 | 1D06001-MS1 | 040711C-011 | 04/07/11 11:19 |
| 05-MW-005 | 1D06001-MSD1 | 040711C-012 | 04/07/11 11:23 |
| 05-MW-005 | 1D06001-PS1 | 040711C-013 | 04/07/11 11:28 |
| 05-MW-005 | 1D06001-DUP1 | 040711C-014 | 04/07/11 11:33 |
| 05-MW-005-D | 1103208-04 | 040711C-015 | 04/07/11 11:38 |
| Equip Blank 01 | 1103208-05 | 040711C-016 | 04/07/11 11:42 |
| Calibration Check | 1D09708-CCV2 | 040711C-024 | 04/07/11 12:22 |
| Calibration Blank | 1D09708-CCB2 | 040711C-025 | 04/07/11 12:29 |

# INITIAL AND CONTINUING CALIBRATION CHECK

## SW6010C

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Instrument ID: ME-ICP

SDG: CTOJM26_001

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units | Control Limit |
|---|---|---|---|---|---|---|
| 1D09708-ICV1 | Lead | 1000 | 1028 | 103 | ug/L | +/- 10.00% |
| 1D09708-CCV1 | Lead | 1000 | 1036 | 104 | ug/L | +/- 10.00% |
| 1D09708-CCV2 | Lead | 1000 | 968.7 | 96.9 | ug/L | +/- 10.00% |

# CRDL STANDARD

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| 1D09708-CRL1 | Lead | 3.000 | 3.266 | 109 | ug/L | 80 - 120 |

# BLANKS
## SW6010C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_001
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D09708
Calibration: 1097001

| Lab Sample ID | Analyte | Found | MDL | MRL | Units | C | Method |
|---|---|---|---|---|---|---|---|
| 1D09708-ICB1 | Lead | -0.1227 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB1 | Lead | 0.0633 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D06001-BLK1 | Lead | 0.148 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB2 | Lead | 0.0883 | 1.50 | 3.00 | ug/L | U | SW6010C |

# ICP INTERFERENCE CHECK SAMPLE

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_001

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units |
|---|---|---|---|---|---|
| 1D09708-IFA1 | Lead | | 14.03 | | ug/L |
| 1D09708-IFB2 | Lead | 50.00 | 59.89 | 120 | ug/L |

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 18, 2011** |
| **FROM:** | **JOSEPH KALINYAK** | **COPIES:** | **DV FILE** |

**SUBJECT:** **ORGANIC DATA VALIDATION: VOC / PAH / TPH**
**SAUFLEY FIELD, CTO JM26**
**SDG CTOJM26_002**

**SAMPLES:** 1 / Aqueous / VOC / 1,2-Dibromoethane

05-MW-014 TRIP BLANK 9490

1 / Aqueous / VOC (abbreviated list, MTBE & BTEX)

Trip Blank 9484

15 / Soil / VOC (abbreviated list, MTBE & BTEX) / PAH / TPH

| | | |
|---|---|---|
| 05-SS-013-0204 | 05-SS-013-0204-D | 05-SS-014-0204 |
| 05-SS-015-0204 | 05-SS-016-0204 | 05-SS-017-0204 |
| 05-SS-018-1520 | 05-SS-019-0204 | 05-SS-020-0204 |
| 05-SS-021-0204 | 05-SS-022-0204 | 05-SS-023-0204 |
| 05-SS-024-0204 | 05-SS-025-0204 | 05-SS-026-0204 |

2 / Aqueous / PAH / TPH

05-MW-014 EQUIP BLANK 01

## OVERVIEW

The sample set for Saufley Field, CTO JM26, SDG CTOJM26_002 consisted of fifteen (15) soil environmental samples and four (4) aqueous samples including three (3) aqueous QC blanks. The soil samples were analyzed for an abbreviated list of volatile organic compounds (VOCs) (benzene, ethylbenzene, methyl tert-butyl ether, toluene, and total xylenes), polynuclear aromatic hydrocarbons (PAH), and for total petroleum hydrocarbons (TPH) as listed above. The one (1) ground water sample 05-MW-014 was analyzed for VOCs, 1,2-dibromoethane, PAHs, and TPH. One (1) aqueous trip blank Trip Blank 9484 was analyzed for an abbreviated list of VOCs, one (1) aqueous trip blank TRIP BLANK 9490 was analyzed for an expanded list of VOCs, and the one (1) aqueous equipment blank EQUIP BLANK 01 was analyzed for PAHs and TPH as listed above. One (1) field duplicate sample pair was included in this sample delivery group (SDG); 05-SS-013-0204-D / 05-SS-013-0204.

The samples were collected by TetraTech NUS on March 23, 24, and 25, 2011 and analyzed by Empirical Laboratories LLC. All analyses were conducted using USEPA SW-846 Methods 8260B, 8270C SIM, 8011, and Florida Petroleum Range Organics (FL-PRO) analytical and reporting protocols.

The sample data in this SDG were validated with regard to the following list of parameters.

- Data Completeness
- * Holding Times
- * GC/MS Tuning
- Initial and Continuing Calibration
- * Laboratory Blank Analyses
- * Field Duplicate Precision

* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

## VOC

The initial calibration relative response factor (RRF) was less than the 0.05 quality control limit for acrolein for instrument MS-VOA5 on 03/17/11 affecting the analysis of groundwater sample 05-MW-014 and sample TRIP BLANK 9490. Additionally, the continuing calibration verification (CCV) RRF for instrument MS-VOA5 on 03/29/11 @ 19:33 was less than the 0.05 quality control limit for acrolein. Non-detected acrolein results in the aforementioned samples were rejected, (UR).

The CCV percent difference (%D) was greater than the 20% quality control limit for chloroethane for instrument MS-VOA5 on 03/29/11 @ 19:33 affecting samples 05-MW-014 and TRIP BLANK 9490. The non-detected sample 05-MW-014 and sample TRIP BLANK 9490 chloroethane results were qualified estimated, (UJ).

## PAH

EQUIP BLANK 01 sample had positive detections for naphthalene and benzo(a)anthracene.

## TPH

No issues were identified.

## ADDITIONAL COMMENTS

Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the detection limit.

The initial laboratory VOC sample results, laboratory forms, and raw data for VOCs used an incorrect list of analyte parameters for the analysis of sample 05-MW-014 and TRIP BLANK 9490. The laboratory was contacted and a corrected revised laboratory report was submitted and used to re-validate the sample data for VOCs.

The samples 05-MW-014 and TRIP BLANK 9490 had laboratory reported Method Detection Limits (MDL) greater than the Project Action Limit (PAL) for VOCs 1,1,,2,2-tetrachloroethane and acrylonitrile as listed in the Sampling and Analysis Plan (SAP). The SAP had noted that the laboratory MDL was greater than the PAL and no action was taken for this issue.

## EXECUTIVE SUMMARY

**Laboratory Performance Issues:** The laboratory used an incorrect list of VOC analytes for reporting sample results. The laboratory resubmitted the sample results and the resubmission results were missing the analyte trichlorofluoromethane. A second revision was required. Sample 05-MW-014 and sample TRIP BLANK 9490 acrolein non-detected results were rejected due to a RRF quality control limit non-compliance. Sample 05-MW-014 and sample TRIP BLANK 9490 chloroethane non-detected results were qualified due to a CCV quality control limit non-compliance.

**Other factors affecting data quality:** Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999), the site Sample Analysis Plan (SAP), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Joseph Kalinyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# Appendix A

Qualified Analytical Results

## Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

## DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

| PROJ_NO: 02748 | NSAMPLE | 05-MW-014 | | | Trip Blank 9484 | | | TRIP BLANK 9490 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103220-06 | | | 1103228-02 | | | 1103220-03 | | |
| FRACTION: OV | SAMP_DATE | 3/24/2011 | | | 3/25/2011 | | | 3/24/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1,1,1-TRICHLOROETHANE | | 0.25 | U | | | | | 0.25 | U | |
| 1,1,2,2-TETRACHLOROETHANE | | 0.25 | U | | | | | 0.25 | U | |
| 1,1,2-TRICHLOROETHANE | | 0.25 | U | | | | | 0.25 | U | |
| 1,1-DICHLOROETHANE | | 0.25 | U | | | | | 0.25 | U | |
| 1,1-DICHLOROETHENE | | 0.25 | U | | | | | 0.25 | U | |
| 1,2,4-TRICHLOROBENZENE | | 0.25 | U | | | | | 0.25 | U | |
| 1,2-DIBROMOETHANE | | 0.00794 | U | | | | | 0.25 | U | |
| 1,2-DICHLOROETHANE | | 0.25 | U | | | | | 0.25 | U | |
| 1,2-DICHLOROPROPANE | | 0.25 | U | | | | | 0.25 | U | |
| 2-CHLOROETHYL VINYL ETHER | | 1.25 | U | | | | | 1.25 | U | |
| ACROLEIN | | 1.2 | UR | C | | | | 1.2 | UR | C |
| ACRYLONITRILE | | 2.5 | U | | | | | 2.5 | U | |
| BENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| BROMODICHLOROMETHANE | | 0.25 | U | | | | | 0.25 | U | |
| BROMOFORM | | 0.25 | U | | | | | 0.25 | U | |
| BROMOMETHANE | | 0.5 | U | | | | | 0.5 | U | |
| CARBON TETRACHLORIDE | | 0.25 | U | | | | | 0.25 | U | |
| CHLOROBENZENE | | 0.25 | U | | | | | 0.25 | U | |
| CHLORODIBROMOMETHANE | | 0.25 | U | | | | | 0.25 | U | |
| CHLOROETHANE | | 0.5 | UJ | C | | | | 0.5 | UJ | C |
| CHLOROFORM | | 0.25 | U | | | | | 0.25 | U | |
| CHLOROMETHANE | | 0.25 | U | | | | | 0.25 | U | |
| CIS-1,2-DICHLOROETHENE | | 0.25 | U | | | | | 0.25 | U | |
| CIS-1,3-DICHLOROPROPENE | | 0.25 | U | | | | | 0.25 | U | |
| ETHYLBENZENE | | 0.442 | J | P | 0.25 | U | | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TETRACHLOROETHENE | | 0.25 | U | | | | | 0.25 | U | |
| TOLUENE | | 0.958 | J | P | 0.25 | U | | 0.25 | U | |
| TOTAL XYLENES | | 1.6 | J | P | 0.75 | U | | 0.75 | U | |
| TRANS-1,2-DICHLOROETHENE | | 0.25 | U | | | | | 0.25 | U | |
| TRANS-1,3-DICHLOROPROPENE | | 0.25 | U | | | | | 0.25 | U | |
| TRICHLOROETHENE | | 0.25 | U | | | | | 0.25 | U | |
| TRICHLOROFLUOROMETHANE | | 0.25 | U | | | | | 0.25 | U | |
| VINYL CHLORIDE | | 0.25 | U | | | | | 0.25 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-013-0204 | | | 05-SS-013-0204-D | | | 05-SS-014-0204 | | | 05-SS-015-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103220-02RE1 | | | 1103220-04 | | | 1103220-05 | | | 1103220-07 | | |
| FRACTION: OV | SAMP_DATE | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | | 84.4 | | | 94.1 | | | 85.1 | | |
| | DUP_OF | | | | 05-SS-013-0204 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00139 | U | | 0.00154 | U | | 0.00146 | U | | 0.0017 | U | |
| ETHYLBENZENE | | 0.000834 | U | | 0.000925 | U | | 0.000876 | U | | 0.00102 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00139 | U | | 0.00154 | U | | 0.00146 | U | | 0.0017 | U | |
| TOLUENE | | 0.000956 | U | | 0.00106 | U | | 0.001 | U | | 0.00117 | U | |
| TOTAL XYLENES | | 0.00417 | U | | 0.00463 | U | | 0.00438 | U | | 0.0051 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-016-0204 | | | 05-SS-017-0204 | | | 05-SS-018-1520 | | | 05-SS-019-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103220-08 | | | 1103220-09 | | | 1103220-10 | | | 1103220-11 | | |
| FRACTION: OV | SAMP_DATE | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | | 93.1 | | | 79.9 | | | 94.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00146 | U | | 0.00153 | U | | 0.00191 | U | | 0.00129 | U | |
| ETHYLBENZENE | | 0.000877 | U | | 0.000917 | U | | 0.00115 | U | | 0.000772 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00146 | U | | 0.00153 | U | | 0.00191 | U | | 0.00129 | U | |
| TOLUENE | | 0.00101 | U | | 0.00105 | U | | 0.00131 | U | | 0.000885 | U | |
| TOTAL XYLENES | | 0.00439 | U | | 0.00459 | U | | 0.00573 | U | | 0.00386 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-020-0204 | | | 05-SS-021-0204 | | | 05-SS-022-0204 | | | 05-SS-023-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103228-01 | | | 1103228-03 | | | 1103228-04 | | | 1103228-05 | | |
| FRACTION: OV | SAMP_DATE | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.4 | | | 92.7 | | | 83.3 | | | 89.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00169 | U | | 0.00136 | U | | 0.00162 | U | | 0.00146 | U | |
| ETHYLBENZENE | | 0.00101 | U | | 0.000817 | U | | 0.000972 | U | | 0.000873 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00169 | U | | 0.00136 | U | | 0.00162 | U | | 0.00146 | U | |
| TOLUENE | | 0.00116 | U | | 0.000937 | U | | 0.00111 | U | | 0.001 | U | |
| TOTAL XYLENES | | 0.00506 | U | | 0.00409 | U | | 0.00486 | U | | 0.00437 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-024-0204 | | | 05-SS-025-0204 | | | 05-SS-026-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103228-06RE1 | | | 1103228-07 | | | 1103228-08 | | |
| FRACTION: OV | SAMP_DATE | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.9 | | | 92.3 | | | 91.6 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00154 | U | | 0.00147 | U | | 0.00156 | U | |
| ETHYLBENZENE | | 0.000923 | U | | 0.00088 | U | | 0.000935 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00154 | U | | 0.00147 | U | | 0.00156 | U | |
| TOLUENE | | 0.00106 | U | | 0.00101 | U | | 0.00107 | U | |
| TOTAL XYLENES | | 0.00462 | U | | 0.0044 | U | | 0.00467 | U | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-014 | | | EQUIP BLANK 01 | | |
| **SDG: CTOJM26_002** | LAB_ID | 1103220-06 | | | 1103220-01 | | |
| **FRACTION: PAH** | SAMP_DATE | 3/24/2011 | | | 3/23/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0739 | J | P | 0.0467 | U | |
| 2-METHYLNAPHTHALENE | | 0.118 | J | P | 0.0467 | U | |
| ACENAPHTHENE | | 0.05 | U | | 0.0467 | U | |
| ACENAPHTHYLENE | | 0.05 | U | | 0.0467 | U | |
| ANTHRACENE | | 0.05 | U | | 0.0467 | U | |
| BENZO(A)ANTHRACENE | | 0.238 | | | 0.201 | | |
| BENZO(A)PYRENE | | 0.05 | U | | 0.0467 | U | |
| BENZO(B)FLUORANTHENE | | 0.05 | U | | 0.0467 | U | |
| BENZO(G,H,I)PERYLENE | | 0.05 | U | | 0.0467 | U | |
| BENZO(K)FLUORANTHENE | | 0.0687 | J | P | 0.0467 | U | |
| CHRYSENE | | 0.052 | J | P | 0.0467 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0519 | J | P | 0.0467 | U | |
| FLUORANTHENE | | 0.05 | U | | 0.0467 | U | |
| FLUORENE | | 0.05 | U | | 0.0467 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.05 | U | | 0.0467 | U | |
| NAPHTHALENE | | 0.476 | | | 0.183 | J | P |
| PHENANTHRENE | | 0.0561 | J | P | 0.0467 | U | |
| PYRENE | | 0.05 | U | | 0.0467 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-013-0204 | | | 05-SS-013-0204-D | | | 05-SS-014-0204 | | | 05-SS-015-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103220-02 | | | 1103220-04 | | | 1103220-05 | | | 1103220-07 | | |
| FRACTION: PAH | SAMP_DATE | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | | 84.4 | | | 94.1 | | | 85.1 | | |
| | DUP_OF | | | | 05-SS-013-0204 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| 2-METHYLNAPHTHALENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| ACENAPHTHENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| ACENAPHTHYLENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| ANTHRACENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| BENZO(A)ANTHRACENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| BENZO(A)PYRENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| BENZO(B)FLUORANTHENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| BENZO(K)FLUORANTHENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| CHRYSENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| FLUORANTHENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| FLUORENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| NAPHTHALENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| PHENANTHRENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |
| PYRENE | | 0.00176 | U | | 0.00193 | U | | 0.00178 | U | | 0.00192 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-016-0204 | | | 05-SS-017-0204 | | | 05-SS-018-1520 | | | 05-SS-019-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103220-08 | | | 1103220-09 | | | 1103220-10 | | | 1103220-11 | | |
| FRACTION: PAH | SAMP_DATE | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | | 93.1 | | | 79.9 | | | 94.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| 2-METHYLNAPHTHALENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| ACENAPHTHENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| ACENAPHTHYLENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| ANTHRACENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| BENZO(A)ANTHRACENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| BENZO(A)PYRENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| BENZO(B)FLUORANTHENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| BENZO(K)FLUORANTHENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| CHRYSENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| FLUORANTHENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| FLUORENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| NAPHTHALENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| PHENANTHRENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |
| PYRENE | | 0.00178 | U | | 0.00179 | U | | 0.00209 | U | | 0.00173 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-020-0204 | | | 05-SS-021-0204 | | | 05-SS-022-0204 | | | 05-SS-023-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103228-01 | | | 1103228-03 | | | 1103228-04 | | | 1103228-05 | | |
| FRACTION: PAH | SAMP_DATE | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.4 | | | 92.7 | | | 83.3 | | | 89.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| 2-METHYLNAPHTHALENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| ACENAPHTHENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| ACENAPHTHYLENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| ANTHRACENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| BENZO(A)ANTHRACENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| BENZO(A)PYRENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| BENZO(B)FLUORANTHENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| BENZO(K)FLUORANTHENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| CHRYSENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| FLUORANTHENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| FLUORENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| NAPHTHALENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| PHENANTHRENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |
| PYRENE | | 0.00186 | U | | 0.00175 | U | | 0.002 | U | | 0.00181 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-024-0204 | | | 05-SS-025-0204 | | | 05-SS-026-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103228-06 | | | 1103228-07 | | | 1103228-08 | | |
| FRACTION: PAH | SAMP_DATE | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.9 | | | 92.3 | | | 91.6 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| 2-METHYLNAPHTHALENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| ACENAPHTHENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| ACENAPHTHYLENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| ANTHRACENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| BENZO(A)ANTHRACENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| BENZO(A)PYRENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| BENZO(B)FLUORANTHENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| BENZO(K)FLUORANTHENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| CHRYSENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| FLUORANTHENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| FLUORENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| NAPHTHALENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| PHENANTHRENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |
| PYRENE | | 0.00174 | U | | 0.00179 | U | | 0.00174 | U | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-014 | | | EQUIP BLANK 01 | | |
| **SDG: CTOJM26_002** | LAB_ID | 1103220-06 | | | 1103220-01 | | |
| **FRACTION: PET** | SAMP_DATE | 3/24/2011 | | | 3/23/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | | NM | | |
| | UNITS | MG/L | | | MG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.167 | U | | 0.163 | U | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-013-0204 | | | 05-SS-013-0204-D | | | 05-SS-014-0204 | | | 05-SS-015-0204 | | |
| **SDG: CTOJM26_002** | LAB_ID | 1103220-02 | | | 1103220-04 | | | 1103220-05 | | | 1103220-07 | | |
| **FRACTION: PET** | SAMP_DATE | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | | 84.4 | | | 94.1 | | | 85.1 | | |
| | DUP_OF | | | | 05-SS-013-0204 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.5 | U | | 12.6 | U | | 11.4 | U | | 12.7 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-016-0204 | | | 05-SS-017-0204 | | | 05-SS-018-1520 | | | 05-SS-019-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103220-08 | | | 1103220-09 | | | 1103220-10 | | | 1103220-11 | | |
| FRACTION: PET | SAMP_DATE | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | | 3/24/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.1 | | | 93.1 | | | 79.9 | | | 94.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.4 | U | | 11.4 | U | | 13.6 | U | | 20.1 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-020-0204 | | | 05-SS-021-0204 | | | 05-SS-022-0204 | | | 05-SS-023-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103228-01 | | | 1103228-03 | | | 1103228-04 | | | 1103228-05 | | |
| FRACTION: PET | SAMP_DATE | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.4 | | | 92.7 | | | 83.3 | | | 89.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 18 | J | P | 16.8 | J | P | 13.2 | U | | 12.3 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-024-0204 | | | 05-SS-025-0204 | | | 05-SS-026-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_002 | LAB_ID | 1103228-06 | | | 1103228-07 | | | 1103228-08 | | |
| FRACTION: PET | SAMP_DATE | 3/25/2011 | | | 3/25/2011 | | | 3/25/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.9 | | | 92.3 | | | 91.6 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.8 | U | | 11.9 | U | | 25.3 | J | P |

## Appendix B

Results as Reported by the Laboratory

# ANALYSIS DATA SHEET

**05-MW-014**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103220-06 | File ID: | 0322006.D |
| Sampled: | 03/24/11 09:15 | Prepared: | 03/29/11 11:03 | Analyzed: | 03/30/11 01:02 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C29011 Sequence: 1C08905 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | 0.442 | 0.250 | 0.500 | 1.00 | I |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | 0.958 | 0.250 | 0.500 | 1.00 | I |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | 1.60 | 0.750 | 1.50 | 3.00 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.92 | 106 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.03 | 103 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.90 | 106 | 70 - 120 | |

# ANALYSIS DATA SHEET

**05-MW-014**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103220-06 | File ID: | 0322006.D |
| Sampled: | 03/24/11 09:15 | Prepared: | 03/29/11 11:03 | Analyzed: | 03/30/11 01:02 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C29011 Sequence: 1C08905 Calibration: 1078001 Instrument: MS-VOA5

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 31.46 | 105 | 85 - 120 | |

# ANALYSIS DATA SHEET

**TRIP BLANK 9490**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103220-03 | File ID: | 0322003.D |
| Sampled: | 03/24/11 00:00 | Prepared: | 03/29/11 11:03 | Analyzed: | 03/29/11 22:32 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C29011 Sequence: 1C08905 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.58 | 105 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.32 | 104 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.10 | 104 | 70 - 120 | |

# ANALYSIS DATA SHEET

**TRIP BLANK 9490**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103220-03 | File ID: | 0322003.D |
| Sampled: | 03/24/11 00:00 | Prepared: | 03/29/11 11:03 | Analyzed: | 03/29/11 22:32 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Batch: | 1C29011 | Sequence: | 1C08905 | Calibration: | 1078001 | Instrument: | MS-VOA5 |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 30.67 | 102 | 85 - 120 | |

# ANALYSIS DATA SHEET

**Trip Blank 9484**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103228-02 | File ID: | 0322802.D |
| Sampled: | 03/25/11 00:00 | Prepared: | 03/29/11 11:03 | Analyzed: | 03/29/11 23:02 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C29011 Sequence: 1C08905 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.64 | 105 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.90 | 103 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.19 | 104 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.12 | 100 | 85 - 120 | |

# ANALYSIS DATA SHEET

05-SS-013-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103220-02RE1 | File ID: | 0322002R.D |
| Sampled: | 03/24/11 07:55 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 16:03 |
| Solids: | 93.08 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00139 | 0.00278 | 0.00556 | U |
| 100-41-4 | Ethylbenzene | | 0.000834 | 0.00278 | 0.00556 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00139 | 0.00278 | 0.00556 | U |
| 108-88-3 | Toluene | | 0.000956 | 0.00278 | 0.00556 | U |
| 1330-20-7 | Xylenes (total) | | 0.00417 | 0.00834 | 0.0167 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03337 | 0.03285 | 98.4 | 85 - 120 | |
| Dibromofluoromethane | 0.03337 | 0.03578 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03337 | 0.03184 | 95.4 | 75 - 140 | |
| Toluene-d8 | 0.03337 | 0.03228 | 96.7 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-013-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103220-04 | File ID: | 0322004.D |
| Sampled: | 03/24/11 07:55 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 10:28 |
| Solids: | 84.44 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00154 | 0.00308 | 0.00617 | U |
| 100-41-4 | Ethylbenzene | | 0.000925 | 0.00308 | 0.00617 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00154 | 0.00308 | 0.00617 | U |
| 108-88-3 | Toluene | | 0.00106 | 0.00308 | 0.00617 | U |
| 1330-20-7 | Xylenes (total) | | 0.00463 | 0.00925 | 0.0185 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03701 | 0.03792 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03701 | 0.03956 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03701 | 0.04187 | 113 | 75 - 140 | |
| Toluene-d8 | 0.03701 | 0.03581 | 96.8 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-014-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-05 | File ID: | 0322005.D |
| Sampled: | 03/24/11 08:35 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 10:52 |
| Solids: | 94.06 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00146 | 0.00292 | 0.00584 | U |
| 100-41-4 | Ethylbenzene | | 0.000876 | 0.00292 | 0.00584 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00146 | 0.00292 | 0.00584 | U |
| 108-88-3 | Toluene | | 0.00100 | 0.00292 | 0.00584 | U |
| 1330-20-7 | Xylenes (total) | | 0.00438 | 0.00876 | 0.0175 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03505 | 0.03541 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03505 | 0.03655 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03505 | 0.03293 | 93.9 | 75 - 140 | |
| Toluene-d8 | 0.03505 | 0.03461 | 98.7 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-015-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-07 | File ID: | 0322007.D |
| Sampled: | 03/24/11 10:05 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 11:15 |
| Solids: | 85.07 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00170 | 0.00340 | 0.00680 | U |
| 100-41-4 | Ethylbenzene | | 0.00102 | 0.00340 | 0.00680 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00170 | 0.00340 | 0.00680 | U |
| 108-88-3 | Toluene | | 0.00117 | 0.00340 | 0.00680 | U |
| 1330-20-7 | Xylenes (total) | | 0.00510 | 0.0102 | 0.0204 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04082 | 0.04209 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.04082 | 0.04389 | 108 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04082 | 0.04221 | 103 | 75 - 140 | |
| Toluene-d8 | 0.04082 | 0.04028 | 98.7 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-016-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-08 | File ID: | 0322008.D |
| Sampled: | 03/24/11 10:45 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 11:39 |
| Solids: | 93.15 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00146 | 0.00292 | 0.00585 | U |
| 100-41-4 | Ethylbenzene | | 0.000877 | 0.00292 | 0.00585 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00146 | 0.00292 | 0.00585 | U |
| 108-88-3 | Toluene | | 0.00101 | 0.00292 | 0.00585 | U |
| 1330-20-7 | Xylenes (total) | | 0.00439 | 0.00877 | 0.0175 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03508 | 0.03551 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03508 | 0.03740 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03508 | 0.03589 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03508 | 0.03511 | 100 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-017-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-09 | File ID: | 0322009.D |
| Sampled: | 03/24/11 11:20 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 12:05 |
| Solids: | 93.13 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00153 | 0.00306 | 0.00612 | U |
| 100-41-4 | Ethylbenzene | | 0.000917 | 0.00306 | 0.00612 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00153 | 0.00306 | 0.00612 | U |
| 108-88-3 | Toluene | | 0.00105 | 0.00306 | 0.00612 | U |
| 1330-20-7 | Xylenes (total) | | 0.00459 | 0.00917 | 0.0183 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03669 | 0.03655 | 99.6 | 85 - 120 | |
| Dibromofluoromethane | 0.03669 | 0.03974 | 108 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03669 | 0.03707 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03669 | 0.03555 | 96.9 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-018-1520

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-10 | File ID: | 0322010.D |
| Sampled: | 03/24/11 12:35 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 12:29 |
| Solids: | 79.86 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00191 | 0.00382 | 0.00764 | U |
| 100-41-4 | Ethylbenzene | | 0.00115 | 0.00382 | 0.00764 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00191 | 0.00382 | 0.00764 | U |
| 108-88-3 | Toluene | | 0.00131 | 0.00382 | 0.00764 | U |
| 1330-20-7 | Xylenes (total) | | 0.00573 | 0.0115 | 0.0229 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04581 | 0.04574 | 99.8 | 85 - 120 | |
| Dibromofluoromethane | 0.04581 | 0.05080 | 111 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04581 | 0.04893 | 107 | 75 - 140 | |
| Toluene-d8 | 0.04581 | 0.04356 | 95.1 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-019-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-11 | File ID: | 0322011.D |
| Sampled: | 03/24/11 13:30 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 12:53 |
| Solids: | 94.86 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00129 | 0.00257 | 0.00515 | U |
| 100-41-4 | Ethylbenzene | | 0.000772 | 0.00257 | 0.00515 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00129 | 0.00257 | 0.00515 | U |
| 108-88-3 | Toluene | | 0.000885 | 0.00257 | 0.00515 | U |
| 1330-20-7 | Xylenes (total) | | 0.00386 | 0.00772 | 0.0154 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03088 | 0.03125 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03088 | 0.03323 | 108 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03088 | 0.02957 | 95.7 | 75 - 140 | |
| Toluene-d8 | 0.03088 | 0.03032 | 98.2 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-020-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103228-01 | File ID: | 0322801.D |
| Sampled: | 03/25/11 11:05 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 13:17 |
| Solids: | 88.45 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00169 | 0.00337 | 0.00675 | U |
| 100-41-4 | Ethylbenzene | | 0.00101 | 0.00337 | 0.00675 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00169 | 0.00337 | 0.00675 | U |
| 108-88-3 | Toluene | | 0.00116 | 0.00337 | 0.00675 | U |
| 1330-20-7 | Xylenes (total) | | 0.00506 | 0.0101 | 0.0202 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04048 | 0.04059 | 100 | 85 - 120 | |
| Dibromofluoromethane | 0.04048 | 0.04320 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04048 | 0.03885 | 96.0 | 75 - 140 | |
| Toluene-d8 | 0.04048 | 0.03970 | 98.1 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-021-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-03 | File ID: | 0322803.D |
| Sampled: | 03/25/11 11:57 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 13:40 |
| Solids: | 92.71 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00136 | 0.00272 | 0.00545 | U |
| 100-41-4 | Ethylbenzene | | 0.000817 | 0.00272 | 0.00545 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00136 | 0.00272 | 0.00545 | U |
| 108-88-3 | Toluene | | 0.000937 | 0.00272 | 0.00545 | U |
| 1330-20-7 | Xylenes (total) | | 0.00409 | 0.00817 | 0.0163 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03269 | 0.03266 | 99.9 | 85 - 120 | |
| Dibromofluoromethane | 0.03269 | 0.03484 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03269 | 0.03120 | 95.5 | 75 - 140 | |
| Toluene-d8 | 0.03269 | 0.03223 | 98.6 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-022-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-04 | File ID: | 0322804.D |
| Sampled: | 03/25/11 13:55 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 14:04 |
| Solids: | 83.31 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00162 | 0.00324 | 0.00648 | U |
| 100-41-4 | Ethylbenzene | | 0.000972 | 0.00324 | 0.00648 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00162 | 0.00324 | 0.00648 | U |
| 108-88-3 | Toluene | | 0.00111 | 0.00324 | 0.00648 | U |
| 1330-20-7 | Xylenes (total) | | 0.00486 | 0.00972 | 0.0194 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03889 | 0.03843 | 98.8 | 85 - 120 | |
| Dibromofluoromethane | 0.03889 | 0.04093 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03889 | 0.03736 | 96.1 | 75 - 140 | |
| Toluene-d8 | 0.03889 | 0.03715 | 95.5 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-023-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-05 | File ID: | 0322805.D |
| Sampled: | 03/25/11 14:40 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 14:28 |
| Solids: | 89.66 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00146 | 0.00291 | 0.00582 | U |
| 100-41-4 | Ethylbenzene | | 0.000873 | 0.00291 | 0.00582 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00146 | 0.00291 | 0.00582 | U |
| 108-88-3 | Toluene | | 0.00100 | 0.00291 | 0.00582 | U |
| 1330-20-7 | Xylenes (total) | | 0.00437 | 0.00873 | 0.0175 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03493 | 0.03490 | 99.9 | 85 - 120 | |
| Dibromofluoromethane | 0.03493 | 0.03826 | 110 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03493 | 0.03310 | 94.8 | 75 - 140 | |
| Toluene-d8 | 0.03493 | 0.03320 | 95.1 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-024-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-06RE1 | File ID: | 0322806R.D |
| Sampled: | 03/25/11 15:15 | Prepared: | 03/30/11 00:00 | Analyzed: | 03/30/11 13:41 |
| Solids: | 92.92 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C30015 Sequence: 1C09034 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00154 | 0.00308 | 0.00616 | U |
| 100-41-4 | Ethylbenzene | | 0.000923 | 0.00308 | 0.00616 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00154 | 0.00308 | 0.00616 | U |
| 108-88-3 | Toluene | | 0.00106 | 0.00308 | 0.00616 | U |
| 1330-20-7 | Xylenes (total) | | 0.00462 | 0.00923 | 0.0185 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03694 | 0.03649 | 98.8 | 85 - 120 | |
| Dibromofluoromethane | 0.03694 | 0.03748 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03694 | 0.03613 | 97.8 | 75 - 140 | |
| Toluene-d8 | 0.03694 | 0.03731 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-025-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-07 | File ID: | 0322807.D |
| Sampled: | 03/25/11 15:45 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 15:16 |
| Solids: | 92.25 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00147 | 0.00293 | 0.00587 | U |
| 100-41-4 | Ethylbenzene | | 0.000880 | 0.00293 | 0.00587 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00147 | 0.00293 | 0.00587 | U |
| 108-88-3 | Toluene | | 0.00101 | 0.00293 | 0.00587 | U |
| 1330-20-7 | Xylenes (total) | | 0.00440 | 0.00880 | 0.0176 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03519 | 0.03629 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03519 | 0.03722 | 106 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03519 | 0.03555 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03519 | 0.03391 | 96.4 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-026-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-08 | File ID: | 0322808.D |
| Sampled: | 03/25/11 16:20 | Prepared: | 03/29/11 00:00 | Analyzed: | 03/29/11 15:40 |
| Solids: | 91.60 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1C29005 Sequence: 1C08902 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00156 | 0.00312 | 0.00623 | U |
| 100-41-4 | Ethylbenzene | | 0.000935 | 0.00312 | 0.00623 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00156 | 0.00312 | 0.00623 | U |
| 108-88-3 | Toluene | | 0.00107 | 0.00312 | 0.00623 | U |
| 1330-20-7 | Xylenes (total) | | 0.00467 | 0.00935 | 0.0187 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03739 | 0.03798 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03739 | 0.04055 | 108 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03739 | 0.03568 | 95.4 | 75 - 140 | |
| Toluene-d8 | 0.03739 | 0.03547 | 94.9 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-MW-014**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1103220-06 | File ID: | 010R0201.D |
| Sampled: | 03/24/11 09:15 | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 23:22 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00794 | 0.0159 | 0.0238 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**05-MW-014**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103220-06 | File ID: | 0322006.D |
| Sampled: | 03/24/11 09:15 | Prepared: | 03/29/11 13:24 | Analyzed: | 04/04/11 16:59 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C28023 Sequence: 1D09509 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | 0.238 | 0.0500 | 0.100 | 0.200 | |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | 0.0687 | 0.0500 | 0.100 | 0.200 | I |
| 218-01-9 | Chrysene | 0.0520 | 0.0500 | 0.100 | 0.200 | I |
| 53-70-3 | Dibenz(a,h)anthracene | 0.0519 | 0.0500 | 0.100 | 0.200 | I |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | 0.0739 | 0.0500 | 0.100 | 0.200 | I |
| 91-57-6 | 2-Methylnaphthalene | 0.118 | 0.0500 | 0.100 | 0.200 | I |
| 91-20-3 | Naphthalene | 0.476 | 0.0500 | 0.100 | 0.200 | |
| 85-01-8 | Phenanthrene | 0.0561 | 0.0500 | 0.100 | 0.200 | I |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 33.08 | 66.2 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 22.77 | 45.5 | 34 - 167 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK 01**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103220-01 | File ID: | 0322001.D |
| Sampled: | 03/23/11 07:20 | Prepared: | 03/29/11 13:24 | Analyzed: | 04/04/11 16:32 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C28023 Sequence: 1D09509 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0467 | 0.0935 | 0.187 | Q, U |
| 208-96-8 | Acenaphthylene | | 0.0467 | 0.0935 | 0.187 | U |
| 120-12-7 | Anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 56-55-3 | Benzo(a)anthracene | 0.201 | 0.0467 | 0.0935 | 0.187 | |
| 50-32-8 | Benzo(a)pyrene | | 0.0467 | 0.0935 | 0.187 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0467 | 0.0935 | 0.187 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 218-01-9 | Chrysene | | 0.0467 | 0.0935 | 0.187 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 206-44-0 | Fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 86-73-7 | Fluorene | | 0.0467 | 0.0935 | 0.187 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0467 | 0.0935 | 0.187 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 91-20-3 | Naphthalene | 0.183 | 0.0467 | 0.0935 | 0.187 | 1 |
| 85-01-8 | Phenanthrene | | 0.0467 | 0.0935 | 0.187 | U |
| 129-00-0 | Pyrene | | 0.0467 | 0.0935 | 0.187 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 46.73 | 36.61 | 78.3 | 34 - 167 | |
| Terphenyl-d14 | 46.73 | 34.10 | 73.0 | 34 - 167 | |

# ANALYSIS DATA SHEET

05-SS-013-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103220-02 | File ID: | 0322002.D |
| Sampled: | 03/24/11 07:55 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 19:38 |
| Solids: | 93.08 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00176 | 0.00351 | 0.00703 | U |
| 208-96-8 | Acenaphthylene | | 0.00176 | 0.00351 | 0.00703 | U |
| 120-12-7 | Anthracene | | 0.00176 | 0.00351 | 0.00703 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00176 | 0.00351 | 0.00703 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00176 | 0.00351 | 0.00703 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00176 | 0.00351 | 0.00703 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00176 | 0.00351 | 0.00703 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00176 | 0.00351 | 0.00703 | U |
| 218-01-9 | Chrysene | | 0.00176 | 0.00351 | 0.00703 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00176 | 0.00351 | 0.00703 | U |
| 206-44-0 | Fluoranthene | | 0.00176 | 0.00351 | 0.00703 | U |
| 86-73-7 | Fluorene | | 0.00176 | 0.00351 | 0.00703 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00176 | 0.00351 | 0.00703 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00176 | 0.00351 | 0.00703 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00176 | 0.00351 | 0.00703 | U |
| 91-20-3 | Naphthalene | | 0.00176 | 0.00351 | 0.00703 | U |
| 85-01-8 | Phenanthrene | | 0.00176 | 0.00351 | 0.00703 | U |
| 129-00-0 | Pyrene | | 0.00176 | 0.00351 | 0.00703 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.511 | 3.150 | 89.7 | 14 - 129 | |
| Terphenyl-d14 | 3.511 | 3.210 | 91.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-013-0204-D

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103220-04 | File ID: | 0322004.D |
| Sampled: | 03/24/11 07:55 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 20:05 |
| Solids: | 84.44 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00193 | 0.00384 | 0.00769 | U |
| 208-96-8 | Acenaphthylene | | 0.00193 | 0.00384 | 0.00769 | U |
| 120-12-7 | Anthracene | | 0.00193 | 0.00384 | 0.00769 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00193 | 0.00384 | 0.00769 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00193 | 0.00384 | 0.00769 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00193 | 0.00384 | 0.00769 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00193 | 0.00384 | 0.00769 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00193 | 0.00384 | 0.00769 | U |
| 218-01-9 | Chrysene | | 0.00193 | 0.00384 | 0.00769 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00193 | 0.00384 | 0.00769 | U |
| 206-44-0 | Fluoranthene | | 0.00193 | 0.00384 | 0.00769 | U |
| 86-73-7 | Fluorene | | 0.00193 | 0.00384 | 0.00769 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00193 | 0.00384 | 0.00769 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00193 | 0.00384 | 0.00769 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00193 | 0.00384 | 0.00769 | U |
| 91-20-3 | Naphthalene | | 0.00193 | 0.00384 | 0.00769 | U |
| 85-01-8 | Phenanthrene | | 0.00193 | 0.00384 | 0.00769 | U |
| 129-00-0 | Pyrene | | 0.00193 | 0.00384 | 0.00769 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.845 | 3.246 | 84.4 | 14 - 129 | |
| Terphenyl-d14 | 3.845 | 3.669 | 95.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-014-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103220-05 | File ID: | 0322005.D |
| Sampled: | 03/24/11 08:35 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 20:32 |
| Solids: | 94.06 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00178 | 0.00354 | 0.00709 | U |
| 208-96-8 | Acenaphthylene | | 0.00178 | 0.00354 | 0.00709 | U |
| 120-12-7 | Anthracene | | 0.00178 | 0.00354 | 0.00709 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00178 | 0.00354 | 0.00709 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00178 | 0.00354 | 0.00709 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00178 | 0.00354 | 0.00709 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00178 | 0.00354 | 0.00709 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00178 | 0.00354 | 0.00709 | U |
| 218-01-9 | Chrysene | | 0.00178 | 0.00354 | 0.00709 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00178 | 0.00354 | 0.00709 | U |
| 206-44-0 | Fluoranthene | | 0.00178 | 0.00354 | 0.00709 | U |
| 86-73-7 | Fluorene | | 0.00178 | 0.00354 | 0.00709 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00178 | 0.00354 | 0.00709 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00178 | 0.00354 | 0.00709 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00178 | 0.00354 | 0.00709 | U |
| 91-20-3 | Naphthalene | | 0.00178 | 0.00354 | 0.00709 | U |
| 85-01-8 | Phenanthrene | | 0.00178 | 0.00354 | 0.00709 | U |
| 129-00-0 | Pyrene | | 0.00178 | 0.00354 | 0.00709 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.544 | 3.123 | 88.1 | 14 - 129 | |
| Terphenyl-d14 | 3.544 | 3.225 | 91.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-015-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-07 | File ID: | 0322007.D |
| Sampled: | 03/24/11 10:05 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 23:17 |
| Solids: | 85.07 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00192 | 0.00384 | 0.00769 | U |
| 208-96-8 | Acenaphthylene | | 0.00192 | 0.00384 | 0.00769 | U |
| 120-12-7 | Anthracene | | 0.00192 | 0.00384 | 0.00769 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00192 | 0.00384 | 0.00769 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00192 | 0.00384 | 0.00769 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00192 | 0.00384 | 0.00769 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00192 | 0.00384 | 0.00769 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00192 | 0.00384 | 0.00769 | U |
| 218-01-9 | Chrysene | | 0.00192 | 0.00384 | 0.00769 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00192 | 0.00384 | 0.00769 | U |
| 206-44-0 | Fluoranthene | | 0.00192 | 0.00384 | 0.00769 | U |
| 86-73-7 | Fluorene | | 0.00192 | 0.00384 | 0.00769 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00192 | 0.00384 | 0.00769 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00192 | 0.00384 | 0.00769 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00192 | 0.00384 | 0.00769 | U |
| 91-20-3 | Naphthalene | | 0.00192 | 0.00384 | 0.00769 | U |
| 85-01-8 | Phenanthrene | | 0.00192 | 0.00384 | 0.00769 | U |
| 129-00-0 | Pyrene | | 0.00192 | 0.00384 | 0.00769 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.841 | 3.464 | 90.2 | 14 - 129 | |
| Terphenyl-d14 | 3.841 | 3.568 | 92.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-016-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103220-08 | File ID: | 0322008.D |
| Sampled: | 03/24/11 10:45 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 20:59 |
| Solids: | 93.15 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00178 | 0.00355 | 0.00711 | U |
| 208-96-8 | Acenaphthylene | | 0.00178 | 0.00355 | 0.00711 | U |
| 120-12-7 | Anthracene | | 0.00178 | 0.00355 | 0.00711 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00178 | 0.00355 | 0.00711 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00178 | 0.00355 | 0.00711 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00178 | 0.00355 | 0.00711 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00178 | 0.00355 | 0.00711 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00178 | 0.00355 | 0.00711 | U |
| 218-01-9 | Chrysene | | 0.00178 | 0.00355 | 0.00711 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00178 | 0.00355 | 0.00711 | U |
| 206-44-0 | Fluoranthene | | 0.00178 | 0.00355 | 0.00711 | U |
| 86-73-7 | Fluorene | | 0.00178 | 0.00355 | 0.00711 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00178 | 0.00355 | 0.00711 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00178 | 0.00355 | 0.00711 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00178 | 0.00355 | 0.00711 | U |
| 91-20-3 | Naphthalene | | 0.00178 | 0.00355 | 0.00711 | U |
| 85-01-8 | Phenanthrene | | 0.00178 | 0.00355 | 0.00711 | U |
| 129-00-0 | Pyrene | | 0.00178 | 0.00355 | 0.00711 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.555 | 3.376 | 95.0 | 14 - 129 | |
| Terphenyl-d14 | 3.555 | 3.243 | 91.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-017-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-09 | File ID: | 0322009.D |
| Sampled: | 03/24/11 11:20 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 23:45 |
| Solids: | 93.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00358 | 0.00716 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00358 | 0.00716 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00358 | 0.00716 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00179 | 0.00358 | 0.00716 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00179 | 0.00358 | 0.00716 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00179 | 0.00358 | 0.00716 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00179 | 0.00358 | 0.00716 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00179 | 0.00358 | 0.00716 | U |
| 218-01-9 | Chrysene | | 0.00179 | 0.00358 | 0.00716 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00358 | 0.00716 | U |
| 206-44-0 | Fluoranthene | | 0.00179 | 0.00358 | 0.00716 | U |
| 86-73-7 | Fluorene | | 0.00179 | 0.00358 | 0.00716 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00179 | 0.00358 | 0.00716 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00358 | 0.00716 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00358 | 0.00716 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00358 | 0.00716 | U |
| 85-01-8 | Phenanthrene | | 0.00179 | 0.00358 | 0.00716 | U |
| 129-00-0 | Pyrene | | 0.00179 | 0.00358 | 0.00716 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.579 | 3.235 | 90.4 | 14 - 129 | |
| Terphenyl-d14 | 3.579 | 3.253 | 90.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-018-1520

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-10 | File ID: | 0322010.D |
| Sampled: | 03/24/11 12:35 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 21:27 |
| Solids: | 79.86 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00209 | 0.00417 | 0.00835 | U |
| 208-96-8 | Acenaphthylene | | 0.00209 | 0.00417 | 0.00835 | U |
| 120-12-7 | Anthracene | | 0.00209 | 0.00417 | 0.00835 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00209 | 0.00417 | 0.00835 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00209 | 0.00417 | 0.00835 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00209 | 0.00417 | 0.00835 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00209 | 0.00417 | 0.00835 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00209 | 0.00417 | 0.00835 | U |
| 218-01-9 | Chrysene | | 0.00209 | 0.00417 | 0.00835 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00209 | 0.00417 | 0.00835 | U |
| 206-44-0 | Fluoranthene | | 0.00209 | 0.00417 | 0.00835 | U |
| 86-73-7 | Fluorene | | 0.00209 | 0.00417 | 0.00835 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00209 | 0.00417 | 0.00835 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00209 | 0.00417 | 0.00835 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00209 | 0.00417 | 0.00835 | U |
| 91-20-3 | Naphthalene | | 0.00209 | 0.00417 | 0.00835 | U |
| 85-01-8 | Phenanthrene | | 0.00209 | 0.00417 | 0.00835 | U |
| 129-00-0 | Pyrene | | 0.00209 | 0.00417 | 0.00835 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.174 | 3.648 | 87.4 | 14 - 129 | |
| Terphenyl-d14 | 4.174 | 3.998 | 95.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-019-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103220-11 | File ID: | 0322011.D |
| Sampled: | 03/24/11 13:30 | Prepared: | 03/30/11 18:45 | Analyzed: | 03/31/11 21:54 |
| Solids: | 94.86 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1C25007 | Sequence: 1D09412 | Calibration: | 1061004 | Instrument: MS-BNA4 |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00173 | 0.00344 | 0.00689 | U |
| 208-96-8 | Acenaphthylene | | 0.00173 | 0.00344 | 0.00689 | U |
| 120-12-7 | Anthracene | | 0.00173 | 0.00344 | 0.00689 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00173 | 0.00344 | 0.00689 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00173 | 0.00344 | 0.00689 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00173 | 0.00344 | 0.00689 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00173 | 0.00344 | 0.00689 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00173 | 0.00344 | 0.00689 | U |
| 218-01-9 | Chrysene | | 0.00173 | 0.00344 | 0.00689 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00173 | 0.00344 | 0.00689 | U |
| 206-44-0 | Fluoranthene | | 0.00173 | 0.00344 | 0.00689 | U |
| 86-73-7 | Fluorene | | 0.00173 | 0.00344 | 0.00689 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00173 | 0.00344 | 0.00689 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00173 | 0.00344 | 0.00689 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00173 | 0.00344 | 0.00689 | U |
| 91-20-3 | Naphthalene | | 0.00173 | 0.00344 | 0.00689 | U |
| 85-01-8 | Phenanthrene | | 0.00173 | 0.00344 | 0.00689 | U |
| 129-00-0 | Pyrene | | 0.00173 | 0.00344 | 0.00689 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.445 | 3.255 | 94.5 | 14 - 129 | |
| Terphenyl-d14 | 3.445 | 3.090 | 89.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-020-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103228-01 | File ID: | 0322801.D |
| Sampled: | 03/25/11 11:05 | Prepared: | 04/04/11 14:55 | Analyzed: | 04/05/11 13:23 |
| Solids: | 88.45 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04013 Sequence: 1D09607 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00186 | 0.00372 | 0.00744 | U |
| 208-96-8 | Acenaphthylene | | 0.00186 | 0.00372 | 0.00744 | U |
| 120-12-7 | Anthracene | | 0.00186 | 0.00372 | 0.00744 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00186 | 0.00372 | 0.00744 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00186 | 0.00372 | 0.00744 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00186 | 0.00372 | 0.00744 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00186 | 0.00372 | 0.00744 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00186 | 0.00372 | 0.00744 | U |
| 218-01-9 | Chrysene | | 0.00186 | 0.00372 | 0.00744 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00186 | 0.00372 | 0.00744 | U |
| 206-44-0 | Fluoranthene | | 0.00186 | 0.00372 | 0.00744 | U |
| 86-73-7 | Fluorene | | 0.00186 | 0.00372 | 0.00744 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00186 | 0.00372 | 0.00744 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00186 | 0.00372 | 0.00744 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00186 | 0.00372 | 0.00744 | U |
| 91-20-3 | Naphthalene | | 0.00186 | 0.00372 | 0.00744 | U |
| 85-01-8 | Phenanthrene | | 0.00186 | 0.00372 | 0.00744 | U |
| 129-00-0 | Pyrene | | 0.00186 | 0.00372 | 0.00744 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.719 | 2.501 | 67.3 | 14 - 129 | |
| Terphenyl-d14 | 3.719 | 3.082 | 82.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-021-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-03 | File ID: | 0322803.D |
| Sampled: | 03/25/11 11:57 | Prepared: | 04/04/11 14:55 | Analyzed: | 04/05/11 13:51 |
| Solids: | 92.71 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04013 Sequence: 1D09607 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00350 | 0.00701 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00350 | 0.00701 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00350 | 0.00701 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00350 | 0.00701 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00350 | 0.00701 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00350 | 0.00701 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00350 | 0.00701 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00350 | 0.00701 | U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00350 | 0.00701 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00350 | 0.00701 | U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00350 | 0.00701 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00350 | 0.00701 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00175 | 0.00350 | 0.00701 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00350 | 0.00701 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00350 | 0.00701 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00350 | 0.00701 | U |
| 85-01-8 | Phenanthrene | | 0.00175 | 0.00350 | 0.00701 | U |
| 129-00-0 | Pyrene | | 0.00175 | 0.00350 | 0.00701 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.502 | 2.433 | 69.5 | 14 - 129 | |
| Terphenyl-d14 | 3.502 | 2.852 | 81.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-022-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103228-04 | File ID: | 0322804.D |
| Sampled: | 03/25/11 13:55 | Prepared: | 04/04/11 14:55 | Analyzed: | 04/05/11 14:19 |
| Solids: | 83.31 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04013 Sequence: 1D09607 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00200 | 0.00400 | 0.00801 | U |
| 208-96-8 | Acenaphthylene | | 0.00200 | 0.00400 | 0.00801 | U |
| 120-12-7 | Anthracene | | 0.00200 | 0.00400 | 0.00801 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00200 | 0.00400 | 0.00801 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00200 | 0.00400 | 0.00801 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00200 | 0.00400 | 0.00801 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00200 | 0.00400 | 0.00801 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00200 | 0.00400 | 0.00801 | U |
| 218-01-9 | Chrysene | | 0.00200 | 0.00400 | 0.00801 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00200 | 0.00400 | 0.00801 | U |
| 206-44-0 | Fluoranthene | | 0.00200 | 0.00400 | 0.00801 | U |
| 86-73-7 | Fluorene | | 0.00200 | 0.00400 | 0.00801 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00200 | 0.00400 | 0.00801 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00200 | 0.00400 | 0.00801 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00200 | 0.00400 | 0.00801 | U |
| 91-20-3 | Naphthalene | | 0.00200 | 0.00400 | 0.00801 | U |
| 85-01-8 | Phenanthrene | | 0.00200 | 0.00400 | 0.00801 | U |
| 129-00-0 | Pyrene | | 0.00200 | 0.00400 | 0.00801 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.001 | 2.701 | 67.5 | 14 - 129 | |
| Terphenyl-d14 | 4.001 | 3.148 | 78.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-023-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103228-05 | File ID: | 0322805.D |
| Sampled: | 03/25/11 14:40 | Prepared: | 04/04/11 14:55 | Analyzed: | 04/05/11 14:47 |
| Solids: | 89.66 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04013 Sequence: 1D09607 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00181 | 0.00362 | 0.00725 | U |
| 208-96-8 | Acenaphthylene | | 0.00181 | 0.00362 | 0.00725 | U |
| 120-12-7 | Anthracene | | 0.00181 | 0.00362 | 0.00725 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00181 | 0.00362 | 0.00725 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00181 | 0.00362 | 0.00725 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00181 | 0.00362 | 0.00725 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00181 | 0.00362 | 0.00725 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00181 | 0.00362 | 0.00725 | U |
| 218-01-9 | Chrysene | | 0.00181 | 0.00362 | 0.00725 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00181 | 0.00362 | 0.00725 | U |
| 206-44-0 | Fluoranthene | | 0.00181 | 0.00362 | 0.00725 | U |
| 86-73-7 | Fluorene | | 0.00181 | 0.00362 | 0.00725 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00181 | 0.00362 | 0.00725 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00181 | 0.00362 | 0.00725 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00181 | 0.00362 | 0.00725 | U |
| 91-20-3 | Naphthalene | | 0.00181 | 0.00362 | 0.00725 | U |
| 85-01-8 | Phenanthrene | | 0.00181 | 0.00362 | 0.00725 | U |
| 129-00-0 | Pyrene | | 0.00181 | 0.00362 | 0.00725 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.621 | 2.511 | 69.3 | 14 - 129 | |
| Terphenyl-d14 | 3.621 | 2.841 | 78.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-024-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-06 | File ID: | 0322806.D |
| Sampled: | 03/25/11 15:15 | Prepared: | 04/04/11 14:55 | Analyzed: | 04/05/11 15:16 |
| Solids: | 92.92 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04013 Sequence: 1D09607 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00174 | 0.00347 | 0.00695 | U |
| 208-96-8 | Acenaphthylene | | 0.00174 | 0.00347 | 0.00695 | U |
| 120-12-7 | Anthracene | | 0.00174 | 0.00347 | 0.00695 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00174 | 0.00347 | 0.00695 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00174 | 0.00347 | 0.00695 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00174 | 0.00347 | 0.00695 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00174 | 0.00347 | 0.00695 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00174 | 0.00347 | 0.00695 | U |
| 218-01-9 | Chrysene | | 0.00174 | 0.00347 | 0.00695 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00174 | 0.00347 | 0.00695 | U |
| 206-44-0 | Fluoranthene | | 0.00174 | 0.00347 | 0.00695 | U |
| 86-73-7 | Fluorene | | 0.00174 | 0.00347 | 0.00695 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00174 | 0.00347 | 0.00695 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00174 | 0.00347 | 0.00695 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00174 | 0.00347 | 0.00695 | U |
| 91-20-3 | Naphthalene | | 0.00174 | 0.00347 | 0.00695 | U |
| 85-01-8 | Phenanthrene | | 0.00174 | 0.00347 | 0.00695 | U |
| 129-00-0 | Pyrene | | 0.00174 | 0.00347 | 0.00695 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.471 | 2.636 | 75.9 | 14 - 129 | |
| Terphenyl-d14 | 3.471 | 3.102 | 89.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-025-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103228-07 | File ID: | 0322807.D |
| Sampled: | 03/25/11 15:45 | Prepared: | 04/04/11 14:55 | Analyzed: | 04/05/11 15:44 |
| Solids: | 92.25 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04013 Sequence: 1D09607 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00356 | 0.00714 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00356 | 0.00714 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00356 | 0.00714 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00179 | 0.00356 | 0.00714 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00179 | 0.00356 | 0.00714 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00179 | 0.00356 | 0.00714 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00179 | 0.00356 | 0.00714 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00179 | 0.00356 | 0.00714 | U |
| 218-01-9 | Chrysene | | 0.00179 | 0.00356 | 0.00714 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00356 | 0.00714 | U |
| 206-44-0 | Fluoranthene | | 0.00179 | 0.00356 | 0.00714 | U |
| 86-73-7 | Fluorene | | 0.00179 | 0.00356 | 0.00714 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00179 | 0.00356 | 0.00714 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00356 | 0.00714 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00356 | 0.00714 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00356 | 0.00714 | U |
| 85-01-8 | Phenanthrene | | 0.00179 | 0.00356 | 0.00714 | U |
| 129-00-0 | Pyrene | | 0.00179 | 0.00356 | 0.00714 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.566 | 2.352 | 65.9 | 14 - 129 | |
| Terphenyl-d14 | 3.566 | 2.695 | 75.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-026-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103228-08 | File ID: | 0322808.D |
| Sampled: | 03/25/11 16:20 | Prepared: | 04/04/11 14:55 | Analyzed: | 04/05/11 16:12 |
| Solids: | 91.60 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04013 Sequence: 1D09607 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00174 | 0.00347 | 0.00696 | U |
| 208-96-8 | Acenaphthylene | | 0.00174 | 0.00347 | 0.00696 | U |
| 120-12-7 | Anthracene | | 0.00174 | 0.00347 | 0.00696 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00174 | 0.00347 | 0.00696 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00174 | 0.00347 | 0.00696 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00174 | 0.00347 | 0.00696 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00174 | 0.00347 | 0.00696 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00174 | 0.00347 | 0.00696 | U |
| 218-01-9 | Chrysene | | 0.00174 | 0.00347 | 0.00696 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00174 | 0.00347 | 0.00696 | U |
| 206-44-0 | Fluoranthene | | 0.00174 | 0.00347 | 0.00696 | U |
| 86-73-7 | Fluorene | | 0.00174 | 0.00347 | 0.00696 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00174 | 0.00347 | 0.00696 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00174 | 0.00347 | 0.00696 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00174 | 0.00347 | 0.00696 | U |
| 91-20-3 | Naphthalene | | 0.00174 | 0.00347 | 0.00696 | U |
| 85-01-8 | Phenanthrene | | 0.00174 | 0.00347 | 0.00696 | U |
| 129-00-0 | Pyrene | | 0.00174 | 0.00347 | 0.00696 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.477 | 2.868 | 82.5 | 14 - 129 | |
| Terphenyl-d14 | 3.477 | 3.331 | 95.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-MW-014**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1103220-06 | File ID: | 010F1001.D |
| Sampled: | 03/24/11 09:15 | Prepared: | 03/29/11 13:53 | Analyzed: | 03/30/11 18:41 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C28022 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.167 | 0.333 | 0.667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04902 | 0.05940 | 121 | 50 - 150 | |
| o-Terphenyl | 0.04902 | 0.04634 | 94.5 | 82 - 142 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK 01**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103220-01 | File ID: | 009F0901.D |
| Sampled: | 03/23/11 07:20 | Prepared: | 03/29/11 13:53 | Analyzed: | 03/30/11 17:59 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C28022 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.163 | 0.327 | 0.654 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04808 | 0.05352 | 111 | 50 - 150 | |
| o-Terphenyl | 0.04808 | 0.04327 | 90.0 | 82 - 142 | |

# ANALYSIS DATA SHEET

**05-SS-013-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103220-02 | File ID: | 030F3001.D |
| Sampled: | 03/24/11 07:55 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 08:46 |
| Solids: | 93.08 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.0 | 46.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.488 | 3.453 | 99.0 | 50 - 150 | |
| o-Terphenyl | 3.488 | 3.525 | 101 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-013-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103220-04 | File ID: | 031F3101.D |
| Sampled: | 03/24/11 07:55 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 09:28 |
| Solids: | 84.44 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.6 | 25.2 | 50.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.820 | 3.918 | 103 | 50 - 150 | |
| o-Terphenyl | 3.820 | 3.640 | 95.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-014-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-05 | File ID: | 032F3201.D |
| Sampled: | 03/24/11 08:35 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 10:10 |
| Solids: | 94.06 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.8 | 45.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.452 | 3.499 | 101 | 50 - 150 | |
| o-Terphenyl | 3.452 | 3.353 | 97.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-015-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-07 | File ID: | 033F3301.D |
| Sampled: | 03/24/11 10:05 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 10:52 |
| Solids: | 85.07 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1C25006 | Sequence: | 1C09042 | Calibration: | 1059001 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.7 | 25.4 | 50.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.841 | 3.903 | 102 | 50 - 150 | |
| o-Terphenyl | 3.841 | 3.511 | 91.4 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-016-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-08 | File ID: | 034F3401.D |
| Sampled: | 03/24/11 10:45 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 11:34 |
| Solids: | 93.15 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.9 | 45.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.463 | 3.926 | 113 | 50 - 150 | |
| o-Terphenyl | 3.463 | 3.436 | 99.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-017-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103220-09 | File ID: | 035F3501.D |
| Sampled: | 03/24/11 11:20 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 12:16 |
| Solids: | 93.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.7 | 45.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.442 | 4.055 | 118 | 50 - 150 | |
| o-Terphenyl | 3.442 | 3.694 | 107 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-018-1520

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-10 | File ID: | 036F3601.D |
| Sampled: | 03/24/11 12:35 | Prepared: | 03/29/11 17:00 | Analyzed: | 03/31/11 12:59 |
| Solids: | 79.86 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 13.6 | 27.2 | 54.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.119 | 4.352 | 106 | 50 - 150 | |
| o-Terphenyl | 4.119 | 3.855 | 93.6 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-019-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103220-11 | File ID: | 016F1601.D |
| Sampled: | 03/24/11 13:30 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/07/11 17:49 |
| Solids: | 94.86 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 20.1 | 11.6 | 23.2 | 46.4 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.514 | 3.372 | 96.0 | 50 - 150 | |
| o-Terphenyl | 3.514 | 3.134 | 89.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-020-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103228-01 | File ID: | 017F1701.D |
| Sampled: | 03/25/11 11:05 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/07/11 18:31 |
| Solids: | 88.45 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 18.0 | 12.4 | 24.9 | 49.7 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.769 | 3.658 | 97.1 | 50 - 150 | |
| o-Terphenyl | 3.769 | 3.352 | 88.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-021-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-03 | File ID: | 020F2001.D |
| Sampled: | 03/25/11 11:57 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/07/11 20:38 |
| Solids: | 92.71 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 16.8 | 11.9 | 23.7 | 47.5 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.595 | 3.759 | 105 | 50 - 150 | |
| o-Terphenyl | 3.595 | 3.324 | 92.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-022-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-04 | File ID: | 021F2101.D |
| Sampled: | 03/25/11 13:55 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/07/11 21:21 |
| Solids: | 83.31 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 13.2 | 26.4 | 52.8 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.001 | 3.662 | 91.5 | 50 - 150 | |
| o-Terphenyl | 4.001 | 3.367 | 84.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-023-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-05 | File ID: | 022F2201.D |
| Sampled: | 03/25/11 14:40 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/07/11 22:03 |
| Solids: | 89.66 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.3 | 24.5 | 49.1 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.718 | 3.067 | 82.5 | 50 - 150 | |
| o-Terphenyl | 3.718 | 3.050 | 82.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-024-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-06 | File ID: | 023F2301.D |
| Sampled: | 03/25/11 15:15 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/07/11 22:46 |
| Solids: | 92.92 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.7 | 47.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.587 | 3.290 | 91.7 | 50 - 150 | |
| o-Terphenyl | 3.587 | 3.296 | 91.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-025-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-07 | File ID: | 024F2401.D |
| Sampled: | 03/25/11 15:45 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/07/11 23:28 |
| Solids: | 92.25 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.613 | 2.727 | 75.5 | 50 - 150 | |
| o-Terphenyl | 3.613 | 2.682 | 74.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-026-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103228-08 | File ID: | 025F2501.D |
| Sampled: | 03/25/11 16:20 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 00:10 |
| Solids: | 91.60 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 25.3 | 12.0 | 24.0 | 48.0 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.639 | 3.028 | 83.2 | 50 - 150 | |
| o-Terphenyl | 3.639 | 2.786 | 76.6 | 35 - 140 | |

# APPENDIX C

## SUPPORT DOCUMENTATION

# Appendix C

Support Documentation

# HOLDTIME

**SDG** CTOJM26_002

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| M | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| M | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 04/06/2011 | 04/07/2011 | 13 | 1 | 14 |
| M | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| EDB | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| EDB | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 04/06/2011 | 04/06/2011 | 13 | 0 | 13 |
| EDB | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| EDB | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| OV | MG/KG | 05-SS-024-0204 | 1103228-06RE1 | NM | 03/25/2011 | 03/30/2011 | 03/30/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-014-0204 | 1103220-05 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-015-0204 | 1103220-07 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-016-0204 | 1103220-08 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-017-0204 | 1103220-09 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-018-1520 | 1103220-10 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-019-0204 | 1103220-11 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | MG/KG | 05-SS-020-0204 | 1103228-01 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-021-0204 | 1103228-03 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-013-0204-D | 1103220-04 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-023-0204 | 1103228-05 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-025-0204 | 1103228-07 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-026-0204 | 1103228-08 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-022-0204 | 1103228-04 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-005-0204D | 1103208-02 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-013-0204 | 1103220-02RE1 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-002-0204 | 1103202-02 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-001-0204 | 1103202-01 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-003-0204 | 1103202-03 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-005-0204 | 1103208-01 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-006-0204 | 1103208-07 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-007-0204 | 1103208-08 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-008-0204 | 1103208-09 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-009-0204 | 1103208-10 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-010-0204 | 1103208-11 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | MG/KG | 05-SS-011-0204 | 1103208-12 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-012-0204 | 1103208-13 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-004-0204 | 1103202-04 | NM | 03/22/2011 | 03/28/2011 | 03/28/2011 | 6 | 0 | 6 |
| OV | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 03/29/2011 | 03/30/2011 | 5 | 1 | 6 |
| OV | UG/L | Trip Blank 9485 | 1103208-06 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 03/28/2011 | 03/29/2011 | 5 | 1 | 6 |
| OV | UG/L | TripBlank #9482 | 1103202-05 | NM | 03/22/2011 | 03/25/2011 | 03/25/2011 | 3 | 0 | 3 |
| OV | UG/L | TRIP BLANK 9490 | 1103220-03 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | UG/L | Trip Blank 9484 | 1103228-02 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| SIM | MG/KG | 05-SS-006-0204 | 1103208-07 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-001-0204 | 1103202-01 | SUR | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-011-0204 | 1103208-12 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-010-0204 | 1103208-11 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-011-0204 | 1103208-12 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-010-0204 | 1103208-11 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-009-0204 | 1103208-10 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-009-0204 | 1103208-10 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-008-0204 | 1103208-09 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-008-0204 | 1103208-09 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-007-0204 | 1103208-08 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-007-0204 | 1103208-08 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-006-0204 | 1103208-07 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-005-0204D | 1103208-02 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-005-0204D | 1103208-02 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-005-0204 | 1103208-01 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-005-0204 | 1103208-01 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-004-0204 | 1103202-04 | SUR | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-004-0204 | 1103202-04 | NM | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-003-0204 | 1103202-03 | SUR | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-003-0204 | 1103202-03 | NM | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-002-0204 | 1103202-02 | NM | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-001-0204 | 1103202-01 | NM | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-012-0204 | 1103208-13 | SUR | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-013-0204 | 1103220-02 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-002-0204 | 1103202-02 | SUR | 03/22/2011 | 03/24/2011 | 03/25/2011 | 2 | 1 | 3 |
| SIM | MG/KG | 05-SS-019-0204 | 1103220-11 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-012-0204 | 1103208-13 | NM | 03/23/2011 | 03/30/2011 | 03/31/2011 | 7 | 1 | 8 |
| SIM | MG/KG | 05-SS-026-0204 | 1103228-08 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-026-0204 | 1103228-08 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-025-0204 | 1103228-07 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-025-0204 | 1103228-07 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-024-0204 | 1103228-06 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-024-0204 | 1103228-06 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-023-0204 | 1103228-05 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-023-0204 | 1103228-05 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-022-0204 | 1103228-04 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-022-0204 | 1103228-04 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-021-0204 | 1103228-03 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-021-0204 | 1103228-03 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-020-0204 | 1103228-01 | NM | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-016-0204 | 1103220-08 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-013-0204 | 1103220-02 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-013-0204-D | 1103220-04 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-013-0204-D | 1103220-04 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-014-0204 | 1103220-05 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-014-0204 | 1103220-05 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-020-0204 | 1103228-01 | SUR | 03/25/2011 | 04/04/2011 | 04/05/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-015-0204 | 1103220-07 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-016-0204 | 1103220-08 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-017-0204 | 1103220-09 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-017-0204 | 1103220-09 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-018-1520 | 1103220-10 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-018-1520 | 1103220-10 | SUR | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-019-0204 | 1103220-11 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | MG/KG | 05-SS-015-0204 | 1103220-07 | NM | 03/24/2011 | 03/30/2011 | 03/31/2011 | 6 | 1 | 7 |
| SIM | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 03/29/2011 | 04/04/2011 | 5 | 6 | 11 |
| SIM | UG/L | 05-MW-014 | 1103220-06 | SUR | 03/24/2011 | 03/29/2011 | 04/04/2011 | 5 | 6 | 11 |
| SIM | UG/L | EQUIP BLANK 01 | 1103220-01 | SUR | 03/23/2011 | 03/29/2011 | 04/04/2011 | 6 | 6 | 12 |
| SIM | UG/L | 05-MW-005-D | 1103208-04 | SUR | 03/23/2011 | 03/25/2011 | 03/28/2011 | 2 | 3 | 5 |
| SIM | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 03/25/2011 | 03/28/2011 | 2 | 3 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | UG/L | 05-MW-005 | 1103208-03 | SUR | 03/23/2011 | 03/25/2011 | 03/28/2011 | 2 | 3 | 5 |
| SIM | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 03/25/2011 | 03/28/2011 | 2 | 3 | 5 |
| SIM | UG/L | EQUIP BLANK 01 | 1103220-01 | NM | 03/23/2011 | 03/29/2011 | 04/04/2011 | 6 | 6 | 12 |
| TPH | MG/KG | 05-SS-022-0204 | 1103228-04 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-014-0204 | 1103220-05 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-015-0204 | 1103220-07 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-016-0204 | 1103220-08 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-017-0204 | 1103220-09 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-018-1520 | 1103220-10 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-019-0204 | 1103220-11 | NM | 03/24/2011 | 04/06/2011 | 04/07/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-021-0204 | 1103228-03 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-012-0204 | 1103208-13 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-023-0204 | 1103228-05 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-024-0204 | 1103228-06 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-025-0204 | 1103228-07 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-026-0204 | 1103228-08 | NM | 03/25/2011 | 04/06/2011 | 04/08/2011 | 12 | 2 | 14 |
| TPH | MG/KG | 05-SS-020-0204 | 1103228-01 | NM | 03/25/2011 | 04/06/2011 | 04/07/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-005-0204 | 1103208-01 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-001-0204 | 1103202-01 | NM | 03/22/2011 | 03/29/2011 | 03/30/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-002-0204 | 1103202-02 | NM | 03/22/2011 | 03/29/2011 | 03/30/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-013-0204-D | 1103220-04 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-004-0204 | 1103202-04 | NM | 03/22/2011 | 03/29/2011 | 03/31/2011 | 7 | 2 | 9 |
| TPH | MG/KG | 05-SS-013-0204 | 1103220-02 | NM | 03/24/2011 | 03/29/2011 | 03/31/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-005-0204D | 1103208-02 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-006-0204 | 1103208-07 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-007-0204 | 1103208-08 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-008-0204 | 1103208-09 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-009-0204 | 1103208-10 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-010-0204 | 1103208-11 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-011-0204 | 1103208-12 | NM | 03/23/2011 | 03/29/2011 | 03/31/2011 | 6 | 2 | 8 |
| TPH | MG/KG | 05-SS-003-0204 | 1103202-03 | NM | 03/22/2011 | 03/29/2011 | 03/31/2011 | 7 | 2 | 9 |
| TPH | MG/L | EQUIP BLANK 01 | 1103220-01 | NM | 03/23/2011 | 03/29/2011 | 03/30/2011 | 6 | 1 | 7 |
| TPH | MG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 03/29/2011 | 03/30/2011 | 6 | 1 | 7 |
| TPH | MG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 03/29/2011 | 03/30/2011 | 6 | 1 | 7 |
| TPH | MG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 03/29/2011 | 03/30/2011 | 5 | 1 | 6 |

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2775 | PAGE 1 OF 1

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Saufley Field | Geoff Pope | 850 385 9899 | Empirical, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M Brock | | M. Brock | 850-294-2830 | 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 6684 5094 5769 | | Nashville TN 37228 |

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

| | DATE YEAR 2011 | 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 | PAH H2O | TRPH H2O | BTEX VOC H2O | EDB H2O | Total Pb H2O | PAH (soil) | TRPH (soil) | BTEX, MTBE (soil) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | CONTAINER TYPE PLASTIC (P) or GLASS (G) | | | | | AG | AG | CG | CG | P | AG | AG | CG |
| | | | | | | | | | | PRESERVATIVE USED | none ice | HCL | HCL | HCL | HNO3 | none ice | none ice | H2O methanol |
| 01 | 3/23 | 0720 | Equip. Blank 01 | — | — | — | QC | G | 4 | ✓ | ✓ | — | — | — | — | — | — | 1103220-01 Int 3JO |
| -02 | 3/24 | 0755 | 05-SS-013-0204 | SB013 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -02 |
| -03 | — | — | Trip Blank 9490 | — | — | — | QC | G | 2 | — | — | ✓ | — | — | — | — | ✓ | -03 2JHy |
| -04 | 3/24 | 0755 | 05-SS-013-0204-D | SB013 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -04 Sec-01 |
| -05 | 3/24 | 0835 | 05-SS-014-0204 | SB014 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -05 |
| -06 | 3/24 | 0915 | 05-MW-014 | SB014 | tubing @ 50' | | GW | G | 9 | ✓ | ✓ | ✓ | ✓ | ✓ | — | — | — | -06 2HN+2HHg+HCl+4JHy |
| -07 | 3/24 | 1005 | 05-SS-015-0204 | SB015 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -07 Sec-01 |
| -08 | 3/24 | 1045 | 05-SS-016-0204 | SB016 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -08 |
| -09 | 3/24 | 1120 | 05-SS-017-0204 | SB017 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -09 |
| -10 | 3/24 | 1235 | 05-SS-018-1520 | SB018 | 15 | 20 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -10 |
| 11 | 3/24 | 1330 | 05-SS-019-0204 | SB019 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -11 |
| | | | | | | | | | | | | | | | | | | Temp Blank in cooler |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY M Brock | DATE 3.24.11 | TIME 1600 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY | DATE 3-25-11 | TIME 08:30 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103220 Number of Coolers: 1 of 2

Client: Tetra Tech Project: Sanpley Field

Date/Time Received: 3.25.11 0830 Date cooler(s) opened: 3.25.11

Opened By (print): Reginald Talley (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: 5769

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 3.24.11 Seal Initials: MB

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: Initial Value: 10 °C Correction Factor: -0.3 °C Final Value: 0.7 °C

Dates samples were logged-in: 3-25-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [initials]
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

If Non-Conformance issues were present, list by sample ID: _____

· pH<2 for metals & FLPRO samples

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103228 Number of Coolers: 2 of 2

Client: Tetra Tech Project: Sampley Field

Date/Time Received: 3.25.11 0830 Date cooler(s) opened: 3.25.11

Opened By (print): Reginald Talley (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: 3425

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 3.24.11 Seal Initials: MB

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: Initial Value: 1.2 °C Correction Factor: -0.3 °C Final Value: 0.9 °C

Dates samples were logged-in: 3-25-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: RT 3.25

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2776 | PAGE 1 OF 1

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Sautley Field | PROJECT MANAGER Geoff Pope | PHONE NUMBER 850 385 9899 | LABORATORY NAME AND CONTACT: EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) M Brock | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850 294 2830 | ADDRESS 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER 8684 5094 5758 | | CITY, STATE Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG 9G AG
PRESERVATIVE USED: H2O meth. ice ice

| | DATE YEAR 2011 | 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 | BTEX + MTBE | PAHs | TRPH | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -01 | 3/25 | 1105 | 05-SS-020-0204 | SB020 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | MS+MSD |
| | | 1105 | 05-SS-020-0204MS | SB020 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| | | 1105 | 05-SS-020-0204MSD | SB020 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -02 | | — | Trip Blank 9484 | — | — | — | QC | G | 2 | ✓ | – | – | | | | | | |
| -03 | | 1157 | 05-SS-021-0204 | SB021 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -04 | | 1355 | 05-SS-022-0204 | SB022 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -05 | | 1440 | 05-SS-023-0204 | SB023 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -06 | | 1515 | 05-SS-024-0204 | SB024 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -07 | | 1545 | 05-SS-025-0204 | SB025 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -08 | | 1620 | 05-SS-026-0204 | SB026 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| | | | | | | | | | | | | | | | | | | temp blank in cooler |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY M Brock | DATE 3.25.11 | TIME 1745 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY 2.9°C | DATE 3-26-11 | TIME 1130 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

12

CTOJM26_002 Summ Package

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103228 Number of Coolers: 1 of 1

Client: Tetra Tech Project: Gulf Jay Field

Date/Time Received: 3-26-11/11:30 Date cooler(s) opened: 3-26-11

Opened By (print): Chris Donald (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: 5758

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 3-25-11 Seal Initials: MB

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: Initial Value: 3.2 °C Correction Factor: -0.3 °C Final Value: 2.9 °C

Dates samples were logged-in: 3-28-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [initials]

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

If Non-Conformance issues were present, list by sample ID: _____

WORK ORDER

**1103220**

Printed: 4/14/2011 3:28:44PM

# Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTO JM26 Saufley

**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

**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
661 Andersen Drive
Pittsburgh, PA 15220-2745
Phone :(412) 921-8182
Fax: (412) 921-4040

Date Due: 04/14/2011 16:00 (14 day TAT)
Received By: Chris Donald
Logged In By: Chris Donald

Date Received: 03/25/2011 08:30
Date Logged In 03/25/2011 15:54

Samples Received at: **0.9°C**

| | | | |
|---|---|---|---|
| Custody Seals | Yes | Received On Ice | Yes |
| Containers Intact | Yes | | |
| COC/Labels Agree | Yes | | |
| Preservation Confir | Yes | | |

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103220-01 EQUIP BLANK 01 [Water] Sampled 03/23/2011 07:20 Eastern** | | | | | |
| FLPRO | 04/11/2011 14:00 | 14 | 03/30/2011 06:20 | | |
| SW8270C | 04/11/2011 14:00 | 14 | 03/30/2011 06:20 | | |
| **1103220-02 05-SS-013-0204 [Solid] Sampled 03/24/2011 07:55 Eastern** | | | | | |
| SM2540B | 04/11/2011 14:00 | 14 | 03/31/2011 06:55 | | |
| FLPRO | 04/11/2011 14:00 | 14 | 04/07/2011 06:55 | | |
| SW8270C | 04/11/2011 14:00 | 14 | 04/07/2011 06:55 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 06:55 | | freeze soil. +1,3-dichloropropene |

WORK ORDER

1103220

Printed: 4/14/2011 3:28:44PM

# Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley

Project Manager: Brian Richard
Project Number: TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103220-03 TRIP BLANK 9490 [Water] Sampled 03/24/2011 00:00 Eastern** | | | | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/06/2011 23:00 | | freeze soil. +1,3-dichloropropene |
| **1103220-04 05-SS-013-0204-D [Solid] Sampled 03/24/2011 07:55 Eastern** | | | | | |
| SW8270C | 04/11/2011 14:00 | 14 | 04/07/2011 06:55 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 06:55 | | freeze soil. +1,3-dichloropropene |
| SM2540B | 04/11/2011 14:00 | 14 | 03/31/2011 06:55 | | |
| FLPRO | 04/11/2011 14:00 | 14 | 04/07/2011 06:55 | | |
| **1103220-05 05-SS-014-0204 [Solid] Sampled 03/24/2011 08:35 Eastern** | | | | | |
| FLPRO | 04/11/2011 14:00 | 14 | 04/07/2011 07:35 | | |
| SW8270C | 04/11/2011 14:00 | 14 | 04/07/2011 07:35 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 07:35 | | freeze soil. +1,3-dichloropropene |
| SM2540B | 04/11/2011 14:00 | 14 | 03/31/2011 07:35 | | |
| **1103220-06 05-MW-014 [Water] Sampled 03/24/2011 09:15 Eastern** | | | | | |
| SW8011 | 04/11/2011 14:00 | 14 | 04/07/2011 08:15 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 08:15 | | freeze soil. +1,3-dichloropropene |
| FLPRO | 04/11/2011 14:00 | 14 | 03/31/2011 08:15 | | |
| SW6010C | 04/11/2011 14:00 | 14 | 09/20/2011 08:15 | | Pb only MS/Dup |
| SW8270C | 04/11/2011 14:00 | 14 | 03/31/2011 08:15 | | |
| **1103220-07 05-SS-015-0204 [Solid] Sampled 03/24/2011 10:05 Eastern** | | | | | |
| SW8270C | 04/11/2011 14:00 | 14 | 04/07/2011 09:05 | | |
| FLPRO | 04/11/2011 14:00 | 14 | 04/07/2011 09:05 | | |
| SM2540B | 04/11/2011 14:00 | 14 | 03/31/2011 09:05 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 09:05 | | freeze soil. +1,3-dichloropropene |

WORK ORDER

1103220

Printed: 4/14/2011 3:28:44PM

# Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley

Project Manager: Brian Richard
Project Number: TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103220-08 05-SS-016-0204 [Solid] Sampled 03/24/2011 10:45 Eastern** | | | | | |
| SM2540B | 04/11/2011 14:00 | 14 | 03/31/2011 09:45 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 09:45 | | freeze soil. +1,3-dichloropropene |
| SW8270C | 04/11/2011 14:00 | 14 | 04/07/2011 09:45 | | |
| FLPRO | 04/11/2011 14:00 | 14 | 04/07/2011 09:45 | | |
| **1103220-09 05-SS-017-0204 [Solid] Sampled 03/24/2011 11:20 Eastern** | | | | | |
| SM2540B | 04/11/2011 14:00 | 14 | 03/31/2011 10:20 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 10:20 | | freeze soil. +1,3-dichloropropene |
| SW8270C | 04/11/2011 14:00 | 14 | 04/07/2011 10:20 | | |
| FLPRO | 04/11/2011 14:00 | 14 | 04/07/2011 10:20 | | |
| **1103220-10 05-SS-018-1520 [Solid] Sampled 03/24/2011 12:35 Eastern** | | | | | |
| SW8270C | 04/11/2011 14:00 | 14 | 04/07/2011 11:35 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 11:35 | | freeze soil. +1,3-dichloropropene |
| SM2540B | 04/11/2011 14:00 | 14 | 03/31/2011 11:35 | | |
| FLPRO | 04/11/2011 14:00 | 14 | 04/07/2011 11:35 | | |
| **1103220-11 05-SS-019-0204 [Solid] Sampled 03/24/2011 13:30 Eastern** | | | | | |
| FLPRO | 04/11/2011 14:00 | 14 | 04/07/2011 12:30 | | |
| SW8270C | 04/11/2011 14:00 | 14 | 04/07/2011 12:30 | | |
| SW8260B | 04/11/2011 14:00 | 14 | 04/07/2011 12:30 | | freeze soil. +1,3-dichloropropene |
| SM2540B | 04/11/2011 14:00 | 14 | 03/31/2011 12:30 | | |

WORK ORDER

**1103228**

Printed: 4/14/2011 3:28:17PM

## Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTO JM26 Saufley

**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

**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
661 Andersen Drive
Pittsburgh, PA 15220-2745
Phone :(412) 921-8182
Fax: (412) 921-4040

Date Due: 04/14/2011 16:00 (13 day TAT)
Received By: Chris Donald
Logged In By: Chris Donald

Date Received: 03/26/2011 11:30
Date Logged In 03/28/2011 14:17

Samples Received at: 2.9°C
Custody Seals Yes Received On Ice Yes
Containers Intact Yes
COC/Labels Agree Yes
Preservation Confir Yes

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103228-01 05-SS-020-0204 [Solid] Sampled 03/25/2011 11:05 Eastern** | | | | | **MS/MSD, AP VIALS** |
| SM2540B | 04/11/2011 14:00 | 13 | 04/01/2011 10:05 | | MS/MSD, AP VIALS |
| SW8260B | 04/11/2011 14:00 | 13 | 04/08/2011 10:05 | | freeze soil, MS/MSD, AP VIALS +1,3-dichloropropene |
| SW8270C | 04/11/2011 14:00 | 13 | 04/08/2011 10:05 | | MS/MSD, AP VIALS |
| FLPRO | 04/11/2011 14:00 | 13 | 04/08/2011 10:05 | | MS/MSD, AP VIALS |
| **1103228-02 Trip Blank 9484 [Water] Sampled 03/25/2011 00:00 Central** | | | | | **AP VIALS** |
| SW8260B | 04/11/2011 14:00 | 13 | 04/08/2011 00:00 | | freeze soil. +1,3-dichloropropene |

WORK ORDER

1103228

Printed: 4/14/2011 3:28:17PM

## Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley

Project Manager: Brian Richard
Project Number: TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103228-03 05-SS-021-0204 [Solid] Sampled 03/25/2011 11:57 Eastern** | | | | | **AP VIALS** |
| SW8270C | 04/11/2011 14:00 | 13 | 04/08/2011 10:57 | | AP VIALS |
| SW8260B | 04/11/2011 14:00 | 13 | 04/08/2011 10:57 | | freeze soil, AP VIALS +1,3-dichloropropene |
| SM2540B | 04/11/2011 14:00 | 13 | 04/01/2011 10:57 | | AP VIALS |
| FLPRO | 04/11/2011 14:00 | 13 | 04/08/2011 10:57 | | AP VIALS |
| **1103228-04 05-SS-022-0204 [Solid] Sampled 03/25/2011 13:55 Eastern** | | | | | **AP VIALS** |
| FLPRO | 04/11/2011 14:00 | 13 | 04/08/2011 12:55 | | AP VIALS |
| SM2540B | 04/11/2011 14:00 | 13 | 04/01/2011 12:55 | | AP VIALS |
| SW8270C | 04/11/2011 14:00 | 13 | 04/08/2011 12:55 | | AP VIALS |
| SW8260B | 04/11/2011 14:00 | 13 | 04/08/2011 12:55 | | freeze soil, AP VIALS +1,3-dichloropropene |
| **1103228-05 05-SS-023-0204 [Solid] Sampled 03/25/2011 14:40 Eastern** | | | | | **AP VIALS** |
| SW8260B | 04/11/2011 14:00 | 13 | 04/08/2011 13:40 | | freeze soil, AP VIALS +1,3-dichloropropene |
| FLPRO | 04/11/2011 14:00 | 13 | 04/08/2011 13:40 | | AP VIALS |
| SW8270C | 04/11/2011 14:00 | 13 | 04/08/2011 13:40 | | AP VIALS |
| SM2540B | 04/11/2011 14:00 | 13 | 04/01/2011 13:40 | | AP VIALS |
| **1103228-06 05-SS-024-0204 [Solid] Sampled 03/25/2011 15:15 Eastern** | | | | | **AP VIALS** |
| SW8260B | 04/11/2011 14:00 | 13 | 04/08/2011 14:15 | | freeze soil, AP VIALS +1,3-dichloropropene |
| SW8270C | 04/11/2011 14:00 | 13 | 04/08/2011 14:15 | | AP VIALS |
| SM2540B | 04/11/2011 14:00 | 13 | 04/01/2011 14:15 | | AP VIALS |
| FLPRO | 04/11/2011 14:00 | 13 | 04/08/2011 14:15 | | AP VIALS |

WORK ORDER

1103228

Printed: 4/14/2011 3:28:17PM

# Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley

Project Manager: Brian Richard
Project Number: TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103228-07 05-SS-025-0204 [Solid] Sampled 03/25/2011 15:45 Eastern** | | | | | **AP VIALS** |
| FLPRO | 04/11/2011 14:00 | 13 | 04/08/2011 14:45 | | AP VIALS |
| SW8270C | 04/11/2011 14:00 | 13 | 04/08/2011 14:45 | | AP VIALS |
| SW8260B | 04/11/2011 14:00 | 13 | 04/08/2011 14:45 | | freeze soil, AP VIALS +1,3-dichloropropene |
| SM2540B | 04/11/2011 14:00 | 13 | 04/01/2011 14:45 | | AP VIALS |
| **1103228-08 05-SS-026-0204 [Solid] Sampled 03/25/2011 16:20 Eastern** | | | | | **AP VIALS** |
| FLPRO | 04/11/2011 14:00 | 13 | 04/08/2011 15:20 | | AP VIALS |
| SW8270C | 04/11/2011 14:00 | 13 | 04/08/2011 15:20 | | AP VIALS |
| SW8260B | 04/11/2011 14:00 | 13 | 04/08/2011 15:20 | | freeze soil, AP VIALS +1,3-dichloropropene |
| SM2540B | 04/11/2011 14:00 | 13 | 04/01/2011 15:20 | | AP VIALS |

## Sample Delivery Group Assignment Form

CLIENT: Tetra Tech NUS, Inc. (T010)
PROJECT NAME: NAS Pensacola CTO JM26 Saufley
SDG #: CTOJM26_002
MATRIX: Solid

QC LEVEL: Level IV
Report Due: 4/14/2011
Client Sample Count: 7

| Sample Type | Sampled | Received | Lab ID | Client ID | FLPRO | SM2540B | SW6010C | SW8011 | SW8260B | SW8270C |
|---|---|---|---|---|---|---|---|---|---|---|
| Equipment Blank | 3/23/2011 | 3/25/2011 | 1103220-01 | EQUIP BLANK 01 | X | | | | | X |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-02 | 05-SS-013-0204 | X | X | | | X | X |
| Trip Blank | 3/24/2011 | 3/25/2011 | 1103220-03 | TRIP BLANK 9490 | | | | | X | |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-04 | 05-SS-013-0204-D | X | X | | | X | X |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-05 | 05-SS-014-0204 | X | X | | | X | X |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-06 | 05-MW-014 | X | | X | X | X | X |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-07 | 05-SS-015-0204 | X | X | | | X | X |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-08 | 05-SS-016-0204 | X | X | | | X | X |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-09 | 05-SS-017-0204 | X | X | | | X | X |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-10 | 05-SS-018-1520 | X | X | | | X | X |
| Composite | 3/24/2011 | 3/25/2011 | 1103220-11 | 05-SS-019-0204 | X | X | | | X | X |
| Client Sample | 3/25/2011 | 3/26/2011 | 1103228-01 | 05-SS-020-0204 | MS/MSD, AP VIALS | MS/MSD, AP VIALS | | | MS/MSD, AP VIALS | MS/MSD, AP VIALS |
| Trip Blank | 3/25/2011 | 3/26/2011 | 1103228-02 | Trip Blank 9484 | | | | | AP VIALS | |
| Client Sample | 3/25/2011 | 3/26/2011 | 1103228-03 | 05-SS-021-0204 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/25/2011 | 3/26/2011 | 1103228-04 | 05-SS-022-0204 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/25/2011 | 3/26/2011 | 1103228-05 | 05-SS-023-0204 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/25/2011 | 3/26/2011 | 1103228-06 | 05-SS-024-0204 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/25/2011 | 3/26/2011 | 1103228-07 | 05-SS-025-0204 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/25/2011 | 3/26/2011 | 1103228-08 | 05-SS-026-0204 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
Sample 1103220-04 exceeded criteria with a negative bias for 1,4-Dichlorobenzene-d4; however, 1,4-Dichlorobenzene-d4 is not associated to the reported compounds.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8270C:**
The batch spikes associated to batch 1C28023 exceeded relative percent difference criteria for Acenaphthene.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
No anomalies or deviations are noted.

**SW8011:**
No anomalies or deviations are noted.

**SW6010C:**
No anomalies or deviations are noted.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

## Analytical Report Terms and Qualifiers

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.1 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.1 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.1 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE**" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

# Data for SW8260B Forms

VOC

# HOLDING TIME SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-013-0204 | 03/24/11 07:55 | 03/25/11 08:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 16:03 | 5.38 | 14.00 | |
| TRIP BLANK 9490 | 03/24/11 00:00 | 03/25/11 08:30 | 03/29/11 11:03 | N/A | 14.00 | 03/29/11 22:32 | 5.98 | 14.00 | |
| 05-SS-013-0204-D | 03/24/11 07:55 | 03/25/11 08:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 10:28 | 5.15 | 14.00 | |
| 05-SS-014-0204 | 03/24/11 08:35 | 03/25/11 08:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 10:52 | 5.14 | 14.00 | |
| 05-MW-014 | 03/24/11 09:15 | 03/25/11 08:30 | 03/29/11 11:03 | N/A | 14.00 | 03/30/11 01:02 | 5.70 | 14.00 | |
| 05-SS-015-0204 | 03/24/11 10:05 | 03/25/11 08:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 11:15 | 5.09 | 14.00 | |
| 05-SS-016-0204 | 03/24/11 10:45 | 03/25/11 08:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 11:39 | 5.08 | 14.00 | |
| 05-SS-017-0204 | 03/24/11 11:20 | 03/25/11 08:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 12:05 | 5.07 | 14.00 | |
| 05-SS-018-1520 | 03/24/11 12:35 | 03/25/11 08:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 12:29 | 5.04 | 14.00 | |
| 05-SS-019-0204 | 03/24/11 13:30 | 03/25/11 08:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 12:53 | 5.02 | 14.00 | |
| 05-SS-020-0204 | 03/25/11 11:05 | 03/26/11 11:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 13:17 | 4.13 | 14.00 | |
| Trip Blank 9484 | 03/25/11 00:00 | 03/26/11 11:30 | 03/29/11 11:03 | N/A | 14.00 | 03/29/11 23:02 | 4.96 | 14.00 | |
| 05-SS-021-0204 | 03/25/11 11:57 | 03/26/11 11:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 13:40 | 4.11 | 14.00 | |
| 05-SS-022-0204 | 03/25/11 13:55 | 03/26/11 11:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 14:04 | 4.05 | 14.00 | |
| 05-SS-023-0204 | 03/25/11 14:40 | 03/26/11 11:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 14:28 | 4.03 | 14.00 | |
| 05-SS-024-0204 | 03/25/11 15:15 | 03/26/11 11:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 14:52 | 4.03 | 14.00 | |
| 05-SS-024-0204 | 03/25/11 15:15 | 03/26/11 11:30 | 03/30/11 00:00 | N/A | 14.00 | 03/30/11 13:41 | 4.98 | 14.00 | |
| 05-SS-025-0204 | 03/25/11 15:45 | 03/26/11 11:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 15:16 | 4.02 | 14.00 | |
| 05-SS-026-0204 | 03/25/11 16:20 | 03/26/11 11:30 | 03/29/11 00:00 | N/A | 14.00 | 03/29/11 15:40 | 4.01 | 14.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Sequence: 1C07710

Instrument: MS-VOA5

Calibration: 1078001

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C07710-TUN1 | 0307TU1.D | 03/07/11 12:22 |
| Cal Standard | 1C07710-CAL1 | 0307CAL1.D | 03/07/11 12:53 |
| Cal Standard | 1C07710-CAL2 | 0307CAL2.D | 03/07/11 13:23 |
| Cal Standard | 1C07710-CAL3 | 0307CAL3.D | 03/07/11 13:53 |
| Cal Standard | 1C07710-CAL4 | 0307CAL4.D | 03/07/11 14:23 |
| Cal Standard | 1C07710-CAL5 | 0307CAL5.D | 03/07/11 14:54 |
| Cal Standard | 1C07710-CAL6 | 0307CAL6.D | 03/07/11 15:24 |
| Cal Standard | 1C07710-CAL7 | 0307CAL7.D | 03/07/11 15:54 |
| Cal Standard | 1C07710-CAL8 | 0307CAL8.D | 03/07/11 16:24 |
| Cal Standard | 1C07710-CAL9 | 0307CAL9.D | 03/07/11 16:54 |
| Initial Cal Check | 1C07710-ICV1 | 0307ICV1.D | 03/07/11 17:25 |
| Initial Cal Check | 1C07710-ICV2 | 0307ICV2.D | 03/07/11 17:55 |
| MS Tune | 1C07710-TUN2 | 0317TU2.D | 03/17/11 18:43 |
| Cal Standard | 1C07710-CALB | 0317CAL2.D | 03/17/11 19:13 |
| Cal Standard | 1C07710-CALC | 0317CAL3.D | 03/17/11 20:14 |
| Cal Standard | 1C07710-CALD | 0317CAL4.D | 03/17/11 20:44 |
| Cal Standard | 1C07710-CALE | 0317CAL5.D | 03/17/11 21:14 |
| Cal Standard | 1C07710-CALF | 0317CAL6.D | 03/17/11 21:44 |
| Cal Standard | 1C07710-CALG | 0317CAL7.D | 03/17/11 22:14 |
| Cal Standard | 1C07710-CALH | 0317CAL8.D | 03/17/11 22:44 |
| Cal Standard | 1C07710-CALI | 0317CAL9.D | 03/17/11 23:15 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0307TU1.D | Injection Date: | 03/07/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 12:22 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 29.7 | PASS |
| 75 | 30 - 60% of 95 | 59.7 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.36 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 73.4 | PASS |
| 175 | 5 - 9% of 174 | 8.34 | PASS |
| 176 | 95 - 101% of 174 | 99.3 | PASS |
| 177 | 5 - 9% of 176 | 6.54 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TU2.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 18:43 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.7 | PASS |
| 75 | 30 - 60% of 95 | 50.9 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.95 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 97.6 | PASS |
| 175 | 5 - 9% of 174 | 8.17 | PASS |
| 176 | 95 - 101% of 174 | 96.9 | PASS |
| 177 | 5 - 9% of 176 | 5.26 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Calibration: 1078001

Matrix: Water

SDG: CTOJM26_002

Project: NAS Pensacola CTO JM26 Saufley

Instrument: MS-VOA5

Calibration Dates: 3/7/11 12:53 3/17/11 23:15

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.1125867 | 7.775212 | 6.244286 | 0.1071381 | | | 15 | |
| Acrolein | 4.283427E-02 | 12.92662 | 6.061 | 9.119184E-02 | | | 15 | |
| Acrylonitrile | 7.491512E-02 | 13.92187 | 7.023556 | 3.951867E-02 | | | 15 | |
| Benzene | 0.7397262 | 7.773478 | 12.87444 | 3.353187E-02 | | | 15 | |
| Bromobenzene | 0.5955634 | 7.196348 | 17.832 | 2.354569E-02 | | | 15 | |
| Bromochloromethane | 0.1240907 | 7.549579 | 10.87744 | 7.156777E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7406833 | 20.99942 | 13.17687 | 5.183132E-02 | 0.9999422 | | 0.995 | |
| Bromodichloromethane | 0.393441 | 7.099255 | 13.80056 | 3.837247E-02 | | | 15 | |
| Bromoform | 0.3892677 | 8.488098 | 17.10711 | 1.904145E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2262604 | 13.09668 | 5.114 | 0.1004568 | | | 15 | |
| Bromofluorobenzene | 0.864999 | 4.547677 | 17.648 | 1.998807E-02 | | | 15 | |
| n-Butylbenzene | 1.378201 | 11.49175 | 19.04511 | 1.294924E-02 | | | 15 | |
| 2-Butanone | 0.1018668 | 27.92435 | 10.211 | 0.2192854 | 0.9987152 | | 0.995 | |
| sec-Butylbenzene | 1.844833 | 8.220999 | 18.57544 | 1.160729E-02 | | | 15 | |
| tert-Butylbenzene | 1.620182 | 6.67833 | 18.70456 | 1.990774E-02 | | | 15 | |
| Carbon disulfide | 0.6346432 | 9.888999 | 7.626889 | 8.141692E-02 | | | 15 | |
| Carbon tetrachloride | 0.3803403 | 6.452072 | 12.83711 | 3.700651E-02 | | | 15 | |
| Chlorobenzene | 1.095895 | 8.347511 | 16.69756 | 2.251491E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.1608279 | 8.222484 | 5.294667 | 9.353293E-02 | | | 15 | |
| Chloroform | 0.5084763 | 6.591338 | 10.98578 | 4.276434E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1134227 | 26.69582 | 14.347 | 3.374881E-02 | 0.9997447 | | 0.995 | |
| Chloromethane | 0.2980831 | 6.289672 | 4.365 | 0.188516 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.006089 | 7.388747 | 16.64067 | 2.133492E-02 | | | 15 | |
| 2-Chlorotoluene | 1.523137 | 5.306558 | 18.04867 | 2.098941E-02 | | | 15 | |
| 4-Chlorotoluene | 1.587775 | 9.227864 | 18.10889 | 1.213713E-02 | | | 15 | |
| Cyclohexane | 0.2775874 | 17.23492 | 12.74089 | 2.177786E-02 | 0.9997448 | | 0.995 | |
| Dibromochloromethane | 0.5274875 | 8.943849 | 15.70911 | 2.530325E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1119632 | 25.2941 | 19.43156 | 3.067344E-02 | 0.9986619 | | 0.995 | |
| 1,2-Dibromoethane (EDB) | 0.4534325 | 6.873208 | 15.93667 | 2.316429E-02 | | | 15 | |
| Dibromomethane | 0.1896182 | 11.46889 | 13.63856 | 2.978158E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 0.9705237 | 8.407707 | 19.03511 | 2.694366E-03 | | | 15 | |
| 1,3-Dichlorobenzene | 1.080832 | 6.190879 | 18.67178 | 1.189958E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1078001 | | Instrument: | MS-VOA5 | |
| Matrix: | Water | | Calibration Dates: | 3/7/11 12:53 | 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.153474 | 6.60659 | 18.72089 | 8.928354E-03 | | | 15 | |
| Dichlorodifluoromethane | 0.312813 | 10.72439 | 4.119 | 9.264489E-02 | | | 15 | |
| 1,1-Dichloroethane | 0.4332253 | 8.462878 | 9.104889 | 6.797151E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.4958155 | 6.096188 | 12.131 | 3.325407E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.1779832 | 11.23937 | 6.967667 | 0.1020339 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2226177 | 11.77531 | 10.56189 | 0.0539483 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2077027 | 10.73761 | 8.525556 | 6.283411E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2151602 | 10.90176 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2138675 | 12.72516 | 13.69356 | 2.877113E-02 | 0.9994699 | | CCC (20) | |
| 1,3-Dichloropropane | 0.7045052 | 7.35678 | 15.46267 | 3.084139E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.387605 | 6.483752 | 11.15322 | 4.720791E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.3169346 | 12.22384 | 12.60622 | 4.157777E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3942719 | 12.15062 | 14.59088 | 1.900144E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.6325373 | 15.33703 | 15.05978 | 2.420188E-02 | 0.996921 | | 0.995 | |
| Diisopropyl Ether | 0.7397891 | 20.08696 | 10.34763 | 4.918967E-02 | 0.9988929 | | 0.995 | |
| Ethylbenzene | 1.744482 | 8.836318 | 16.84989 | 7.809333E-03 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.6852749 | 17.62275 | 11.194 | 5.283168E-02 | 0.9997283 | | 0.995 | |
| Ethyl Methacrylate | 0.4920032 | 19.18719 | 15.50875 | 1.084665E-02 | 0.9984347 | | 0.995 | |
| Hexachlorobutadiene | 0.3208413 | 8.710181 | 21.0895 | 1.924166E-02 | | | 15 | |
| 2-Hexanone | 0.28784 | 36.32521 | 15.62175 | 0.0320628 | 0.9989233 | | 0.995 | |
| Iodomethane | 0.3171042 | 26.94596 | 7.022444 | 9.520778E-02 | 0.9998641 | | 0.995 | |
| Isopropylbenzene | 1.42457 | 9.248017 | 17.611 | 1.726366E-02 | | | 15 | |
| p-Isopropyltoluene | 1.23658 | 14.38435 | 18.40356 | 2.441437E-02 | | | 15 | |
| Methylene chloride | 0.2446354 | 7.987041 | 7.210778 | 6.620158E-02 | | | 15 | |
| Methyl Acetate | 0.2084104 | 8.369294 | 7.26575 | 5.467954E-02 | | | 15 | |
| Methylcyclohexane | 0.2523952 | 13.64479 | 14.39522 | 2.265609E-02 | | | 15 | |
| Naphthalene | 1.191261 | 23.06464 | 21.05987 | 0.0200552 | 0.9993743 | | 0.995 | |
| Methyl Methacrylate | 0.2187958 | 26.61596 | 14.03787 | 3.704044E-02 | 0.9996399 | | 0.995 | |
| 4-Methyl-2-pentanone | 0.2291641 | 26.90628 | 14.72129 | 3.572917E-02 | 0.998877 | | 0.995 | |
| Methyl t-Butyl Ether | 0.6052207 | 12.8349 | 8.8215 | 8.072976E-02 | | | 15 | |
| n-Propylbenzene | 2.237126 | 9.337395 | 17.95567 | 1.994119E-02 | | | 15 | |
| Styrene | 0.9900017 | 17.07341 | 17.26711 | 2.496185E-02 | 0.9965055 | | 0.995 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 | | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | | |
| Calibration: | 1078001 | Instrument: | MS-VOA5 | | |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 | 3/17/11 23:15 | |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6316098 | 10.04922 | 17.33711 | 2.899413E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.4599538 | 6.327214 | 16.63844 | 0.0277822 | | | 15 | |
| ~~tert-Butyl alcohol~~ | ~~2.388361E-02~~ | 13.61304 | 6.978556 | 0.1148859 | | | 15 | |
| Tetrachloroethene | 0.4471173 | 6.159571 | 16.11311 | 2.040489E-02 | | | 15 | |
| Toluene | 0.898576 | 5.037505 | 15.40022 | 1.146996E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.5261452 | 14.88703 | 21.32 | 1.886098E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.5974773 | 14.98863 | 20.7705 | 1.201415E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.3365667 | 8.950328 | 15.214 | 1.611987E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.4251429 | 6.687853 | 12.30511 | 4.576472E-02 | | | 15 | |
| Tetrahydrofuran | 5.018338E-02 | 22.93539 | 11.61686 | 9.895117E-02 | 0.9967826 | | 0.995 | |
| Trichloroethene | 0.2427349 | 7.126407 | 13.76456 | 0.0129328 | | | 15 | |
| Trichlorofluoromethane | 0.4960262 | 4.904978 | 6.104889 | 0.1074519 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1614366 | 9.000469 | 17.44544 | 3.217736E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.570048 | 8.309352 | 18.16144 | 1.721281E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.587548 | 10.03676 | 18.48033 | 3.047003E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2442818 | 8.405401 | 7.325778 | 7.810021E-02 | | | 15 | |
| Vinyl chloride | 0.2947606 | 14.0323 | 4.588555 | 0.1334175 | 0.9995107 | | CCC (20) | |
| m,p-Xylene | 1.366232 | 11.79195 | 17.00411 | 0.0168046 | | | 15 | |
| o-Xylene | 1.476455 | 10.00571 | 17.32733 | 2.448285E-02 | | | 15 | |
| Vinyl acetate | 0.2765328 | 28.3144 | 9.427714 | 0.103809 | 0.9990022 | | 0.995 | |
| Xylenes (total) | 1.402973 | 10.95705 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3744165 | 3.817796 | 11.19738 | 3.515222E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 6.425678E-02 | 3.823514 | 11.99925 | 2.523171E-02 | | | 15 | |
| Toluene-d8 | 1.791679 | 4.193785 | 15.32337 | 1.566914E-02 | | | 15 | |
| ~~tert-Amyl alcohol~~ | ~~1.211988E-02~~ | 27.37991 | 11.86886 | 4.178914E-02 | 0.9964038 | | 0.995 | |
| tert-Amyl ethyl ether | 0.5459039 | 17.64679 | 14.268 | 2.379276E-02 | 0.9999014 | | 0.995 | |

# INITIAL CALIBRATION DATA
## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_002
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1078001
Instrument: MS-VOA5
Matrix: Water
Calibration Dates: 3/7/11 12:53 3/17/11 23:15

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 2.501 | 4.202849E-02 | 5.002 | 4.912805E-02 | 10 | 4.589774E-02 | 25.01 | 3.251549E-02 | 50.02 | 3.552824E-02 | 250.1 | 4.184221E-02 |
| Acrylonitrile | 2.499 | 5.545187E-02 | 4.998 | 7.451654E-02 | 9.996 | 7.106185E-02 | 24.99 | 0.0682373 | 49.98 | 6.828281E-02 | 249.9 | 8.161908E-02 |
| Benzene | 0.5 | 0.6530366 | 1 | 0.7225063 | 2 | 0.7201156 | 5 | 0.6816376 | 10 | 0.6954858 | 50 | 0.7910287 |
| Bromobenzene | 0.5 | 0.549701 | 1 | 0.5653215 | 2 | 0.6257115 | 5 | 0.5303183 | 10 | 0.5647184 | 50 | 0.6361531 |
| Bromochloromethane | 0.5 | 0.1057606 | 1 | 0.123257 | 2 | 0.1190287 | 5 | 0.127271 | 10 | 0.1148693 | 50 | 0.1302114 |
| Tert-Amyl Methyl Ether | 0.5 | ~~1.598608~~ | 1 | 1.090158 | 2 | 0.8260847 | 5 | 0.6332337 | 10 | 0.6008392 | 50 | 0.6896912 |
| Bromodichloromethane | 0.5 | 0.3473567 | 1 | 0.3738296 | 2 | 0.4274612 | 5 | 0.3744141 | 10 | 0.3729374 | 50 | 0.4197135 |
| Bromoform | 0.5 | 0.3395406 | 1 | 0.3933789 | 2 | 0.3827047 | 5 | 0.3585994 | 10 | 0.3668502 | 50 | 0.4494797 |
| Bromomethane | 0.5 | ~~0.3339126~~ | 1 | 0.2608612 | 2 | 0.2028232 | 5 | 0.1894378 | 10 | 0.188385 | 50 | 0.2209556 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 0.5 | 1.255296 | 1 | 1.157849 | 2 | 1.426318 | 5 | 1.157857 | 10 | 1.335827 | 50 | 1.584764 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 0.5 | 1.605971 | 1 | 1.719527 | 2 | 1.893229 | 5 | 1.688532 | 10 | 1.794192 | 50 | 2.06856 |
| tert-Butylbenzene | 0.5 | 1.605971 | 1 | 1.7606 | 2 | 1.746774 | 5 | 1.451504 | 10 | 1.473921 | 50 | 1.700813 |
| Carbon disulfide | 0.5 | 0.567741 | 1 | 0.6859014 | 2 | 0.6154258 | 5 | 0.5634893 | 10 | 0.5461005 | 50 | 0.6585375 |
| Carbon tetrachloride | 0.5 | 0.3372985 | 1 | 0.3758977 | 2 | 0.3952787 | 5 | 0.3632524 | 10 | 0.3650022 | 50 | 0.4153075 |
| Chlorobenzene | 0.5 | 1.111502 | 1 | 1.209113 | 2 | 1.239253 | 5 | 1.061227 | 10 | 1.066952 | 50 | 1.15929 |
| Chloroethane | 0.5 | 0.1642675 | 1 | 0.1587503 | 2 | 0.1476798 | 5 | 0.1392525 | 10 | 0.148308 | 50 | 0.1668889 |
| Chloroform | 0.5 | 0.5017652 | 1 | 0.5564144 | 2 | 0.5459435 | 5 | 0.4611848 | 10 | 0.4613822 | 50 | 0.5231686 |
| 2-Chloroethyl vinyl ether | 0.9975 | ~~5.363679E-02~~ | 1.995 | 6.752328E-02 | 3.99 | 9.076441E-02 | 9.975 | 8.626115E-02 | 19.95 | 0.1022495 | 99.75 | 0.1326303 |
| Chloromethane | 0.5 | 0.2942773 | 1 | 0.3005165 | 2 | 0.2887365 | 5 | 0.2728978 | 10 | 0.2720284 | 50 | 0.3033957 |
| 1-Chlorohexane | 0.501 | 1.097595 | 1.002 | 1.012135 | 2.004 | 0.936332 | 5.01 | 0.9217559 | 10.02 | 1.025372 | 50.1 | 1.12813 |
| 2-Chlorotoluene | 0.5 | 1.515348 | 1 | 1.397997 | 2 | 1.557541 | 5 | 1.439761 | 10 | 1.452007 | 50 | 1.635309 |
| 4-Chlorotoluene | 0.5 | 1.318388 | 1 | 1.484549 | 2 | 1.638874 | 5 | 1.516016 | 10 | 1.543591 | 50 | 1.8314 |
| Cyclohexane | 0.5 | 0.2206333 | 1 | 0.2140453 | 2 | 0.2586329 | 5 | 0.2414361 | 10 | 0.2639292 | 50 | 0.3142955 |
| Dibromochloromethane | 0.5 | 0.5052372 | 1 | 0.4633049 | 2 | 0.5005268 | 5 | 0.5110683 | 10 | 0.5275074 | 50 | 0.6261449 |
| 1,2-Dibromo-3-chloropropane | 0.5 | 6.332115E-02 | 1 | 8.807993E-02 | 2 | 0.1177169 | 5 | 0.088725 | 10 | 9.884858E-02 | 50 | 0.1336266 |
| 1,2-Dibromoethane (EDB) | 0.5 | 0.4013586 | 1 | 0.4685921 | 2 | 0.4812981 | 5 | 0.4381936 | 10 | 0.4371352 | 50 | 0.506655 |
| Dibromomethane | 0.5 | 0.1451469 | 1 | 0.1779058 | 2 | 0.2140704 | 5 | 0.1780449 | 10 | 0.1786761 | 50 | 0.2089759 |
| 1,2-Dichlorobenzene | 0.5 | 0.8423319 | 1 | 0.9380307 | 2 | 1.049278 | 5 | 0.8604472 | 10 | 0.9217492 | 50 | 1.049516 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 0.5 | 1.112479 | 1 | 1.115307 | 2 | 1.098572 | 5 | 0.956071 | 10 | 0.9729225 | 50 | 1.103796 |
| 1,4-Dichlorobenzene | 0.5 | 1.158593 | 1 | 1.099266 | 2 | 1.332311 | 5 | 1.080485 | 10 | 1.135327 | 50 | 1.20675 |
| Dichlorodifluoromethane | 0.5 | ~~0.2031559~~ | 1 | 0.2851352 | 2 | 0.2817137 | 5 | 0.2668703 | 10 | 0.3308495 | 50 | 0.3489188 |
| 1,1-Dichloroethane | 0.5 | 0.3854983 | 1 | 0.423334 | 2 | 0.4313391 | 5 | 0.3971104 | 10 | 0.3918833 | 50 | 0.4451532 |
| 1,2-Dichloroethane | 0.5 | 0.4534161 | 1 | 0.5343377 | 2 | 0.5080707 | 5 | 0.474543 | 10 | 0.4663805 | 50 | 0.5333544 |
| 1,1-Dichloroethene | 0.5 | 0.1841349 | 1 | 0.1548726 | 2 | 0.1580342 | 5 | 0.1573192 | 10 | 0.1602801 | 50 | 0.1915411 |
| cis-1,2-Dichloroethene | 0.5 | 0.1785083 | 1 | 0.2166562 | 2 | 0.2079804 | 5 | 0.2065796 | 10 | 0.2021081 | 50 | 0.2421655 |
| trans-1,2-Dichloroethene | 0.5 | 0.1889151 | 1 | 0.2033947 | 2 | 0.2079271 | 5 | 0.1753228 | 10 | 0.1818072 | 50 | 0.2186191 |
| 1,2-Dichloroethene (total) | 1 | 0.1837117 | 2 | 0.2100255 | 4 | 0.2079537 | 10 | 0.1909512 | 20 | 0.1919577 | 100 | 0.2303923 |
| 1,2-Dichloropropane | 0.5 | 0.168948 | 1 | 0.1879359 | 2 | 0.2268768 | 5 | 0.18732 | 10 | 0.2047549 | 50 | 0.2315456 |
| 1,3-Dichloropropane | 0.5 | 0.6575926 | 1 | 0.6980674 | 2 | 0.8082657 | 5 | 0.7240532 | 10 | 0.6862058 | 50 | 0.7566693 |
| 2,2-Dichloropropane | 0.5 | 0.3354064 | 1 | 0.3836529 | 2 | 0.3996096 | 5 | 0.3878091 | 10 | 0.3668844 | 50 | 0.4171759 |
| 1,1-Dichloropropene | 0.5 | 0.2865593 | 1 | 0.2785174 | 2 | 0.2981447 | 5 | 0.268573 | 10 | 0.2936362 | 50 | 0.3550121 |
| cis-1,3-Dichloropropene | 0.5 | ~~0.2853145~~ | 1 | 0.3528387 | 2 | 0.3737703 | 5 | 0.3385224 | 10 | 0.3390344 | 50 | 0.4267643 |
| trans-1,3-Dichloropropene | 0.5 | 0.4846652 | 1 | 0.5558829 | 2 | 0.573596 | 5 | 0.552392 | 10 | 0.6471858 | 50 | 0.7812347 |
| Diisopropyl Ether | 0.5 | | 1 | 0.5630839 | 2 | 0.6222887 | 5 | 0.5963593 | 10 | 0.6386277 | 50 | 0.8195299 |
| Ethylbenzene | 0.5 | 1.513777 | 1 | 1.764011 | 2 | 1.821805 | 5 | 1.720226 | 10 | 1.783079 | 50 | 2.025284 |
| Ethyl tert-Butyl Ether | 0.5 | ~~0.4837401~~ | 1 | 0.533252 | 2 | 0.5360156 | 5 | 0.5875992 | 10 | 0.6570009 | 50 | 0.77559 |
| Ethyl Methacrylate | 0.5 | ~~0.3472806~~ | 1 | 0.3283255 | 2 | 0.4147087 | 5 | 0.4343821 | 10 | 0.4829659 | 50 | 0.6092486 |
| Hexachlorobutadiene | 0.5 | ~~0.1803276~~ | 1 | 0.3610161 | 2 | 0.3366699 | 5 | 0.2756972 | 10 | 0.2860133 | 50 | 0.317731 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 0.5 | 0.2073883 | 1 | 0.2101418 | 2 | 0.269427 | 5 | 0.2611686 | 10 | 0.2970676 | 50 | 0.3910659 |
| Isopropylbenzene | 0.5 | ~~1.014897~~ | 1 | 1.245864 | 2 | 1.4504 | 5 | 1.370257 | 10 | 1.398715 | 50 | 1.667963 |
| p-Isopropyltoluene | 0.5 | 0.8871844 | 1 | 1.160669 | 2 | 1.272723 | 5 | 1.045097 | 10 | 1.229134 | 50 | 1.400642 |
| Methylene chloride | 0.5 | 0.244534 | 1 | 0.2535454 | 2 | 0.2563674 | 5 | 0.2239895 | 10 | 0.2033621 | 50 | 0.2542167 |
| Methyl Acetate | 0.5 | | 1 | 0.2345451 | 2 | 0.216629 | 5 | 0.1838885 | 10 | 0.1831722 | 50 | 0.2121993 |
| Methylcyclohexane | 0.5 | 0.1914047 | 1 | 0.2351396 | 2 | 0.2372178 | 5 | 0.2240788 | 10 | 0.2424172 | 50 | 0.286189 |
| Naphthalene | 0.5 | ~~0.8169805~~ | 1 | 0.81305 | 2 | 0.8881873 | 5 | 0.9747024 | 10 | 1.113737 | 50 | 1.41024 |
| Methyl Methacrylate | 0.5 | ~~0.1152213~~ | 1 | 0.1414302 | 2 | 0.1646306 | 5 | 0.1650073 | 10 | 0.1929139 | 50 | 0.2643784 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 0.5 | ~~0.3712574~~ | 1 | 0.5175347 | 2 | 0.5668921 | 5 | 0.5123423 | 10 | 0.5433326 | 50 | 0.6560853 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 0.5 | 1.916612 | 1 | 1.97225 | 2 | 2.410713 | 5 | 2.088476 | 10 | 2.223762 | 50 | 2.522939 |
| Styrene | 0.5 | 0.6770443 | 1 | 0.7968657 | 2 | 0.9376251 | 5 | 0.9650893 | 10 | 1.043912 | 50 | 1.211562 |
| 1,1,2,2-Tetrachloroethane | 0.5 | 0.5384592 | 1 | 0.6360675 | 2 | 0.7431904 | 5 | 0.5442388 | 10 | 0.6085617 | 50 | 0.6675579 |
| 1,1,1,2-Tetrachloroethane | 0.5 | 0.45452 | 1 | 0.4771967 | 2 | 0.5059003 | 5 | 0.434704 | 10 | 0.4626439 | 50 | 0.4937243 |
| tert-Butyl alcohol | 2.5 | 1.783589E-02 | 5 | 2.238686E-02 | 10 | 2.320073E-02 | 25 | 2.129539E-02 | 50 | 2.269986E-02 | 250 | 2.659937E-02 |
| Tetrachloroethene | 0.5 | 0.4222361 | 1 | 0.4719095 | 2 | 0.4799547 | 5 | 0.4068502 | 10 | 0.4320685 | 50 | 0.4867327 |
| Toluene | 0.5 | 0.8970227 | 1 | 0.8561654 | 2 | 0.9635708 | 5 | 0.8794404 | 10 | 0.870273 | 50 | 0.9729753 |
| 1,2,3-Trichlorobenzene | 0.5 | 0.4409538 | 1 | 0.4929891 | 2 | 0.4516201 | 5 | 0.4558933 | 10 | 0.4719025 | 50 | 0.5739709 |
| 1,2,4-Trichlorobenzene | 0.5 | ~~0.4700907~~ | 1 | 0.5186668 | 2 | 0.5691586 | 5 | 0.4730288 | 10 | 0.5158334 | 50 | 0.6525275 |
| 1,1,2-Trichloroethane | 0.5 | 0.2867865 | 1 | 0.3314874 | 2 | 0.3915552 | 5 | 0.3359903 | 10 | 0.3425208 | 50 | 0.3653537 |
| 1,1,1-Trichloroethane | 0.5 | 0.3788758 | 1 | 0.4498053 | 2 | 0.4136953 | 5 | 0.3982298 | 10 | 0.4053592 | 50 | 0.4596763 |
| Tetrahydrofuran | 0.5 | | 1 | | 2 | 3.503431E-02 | 5 | 4.005893E-02 | 10 | 4.094744E-02 | 50 | 5.213498E-02 |
| Trichloroethene | 0.5 | 0.2230233 | 1 | 0.2314171 | 2 | 0.2368847 | 5 | 0.2277363 | 10 | 0.2250709 | 50 | 0.2626272 |
| Trichlorofluoromethane | 0.5 | 0.5036573 | 1 | 0.5102706 | 2 | 0.5224896 | 5 | 0.4893201 | 10 | 0.45786 | 50 | 0.512485 |
| 1,2,3-Trichloropropane | 0.5 | 0.1740477 | 1 | 0.1758257 | 2 | 0.1744547 | 5 | 0.1433401 | 10 | 0.1569296 | 50 | 0.1778811 |
| 1,3,5-Trimethylbenzene | 0.5 | 1.38515 | 1 | 1.394001 | 2 | 1.590086 | 5 | 1.488164 | 10 | 1.517113 | 50 | 1.732998 |
| 1,2,4-Trimethylbenzene | 0.5 | 1.319305 | 1 | 1.417153 | 2 | 1.589194 | 5 | 1.454183 | 10 | 1.605423 | 50 | 1.792477 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 0.5 | 0.24309 | 1 | 0.2724683 | 2 | 0.2760501 | 5 | 0.2216615 | 10 | 0.2130937 | 50 | 0.2434672 |
| Vinyl chloride | 0.5 | 0.2372642 | 1 | 0.3159495 | 2 | 0.2648295 | 5 | 0.2373792 | 10 | 0.2787096 | 50 | 0.3091784 |
| m,p-Xylene | 1 | 1.203261 | 2 | 1.345518 | 4 | 1.519229 | 10 | 1.462656 | 20 | 1.42931 | 100 | 1.589696 |
| o-Xylene | 0.5 | 1.27231 | 1 | 1.368351 | 2 | 1.604257 | 5 | 1.495059 | 10 | 1.554475 | 50 | 1.717049 |
| Vinyl acetate | 0.9995 | | 1.999 | | 3.998 | 0.1791523 | 9.995 | 0.1819274 | 19.99 | 0.2249437 | 99.95 | 0.3163395 |
| Xylenes (total) | 1.5 | 1.226277 | 3 | 1.353129 | 6 | 1.547571 | 15 | 1.473457 | 30 | 1.471032 | 150 | 1.632147 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 2.5 | | 5 | | 10 | 8.339471E-03 | 25 | 8.548847E-03 | 50 | 9.289561E-03 | 250 | 1.321119E-02 |
| tert-Amyl ethyl ether | 0.5 | ~~0.3347591~~ | 1 | 0.4084956 | 2 | 0.4769143 | 5 | 0.4622831 | 10 | 0.4859446 | 50 | 0.6251876 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_002
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1078001
Instrument: MS-VOA5
Matrix: Water
Calibration Dates: 3/7/11 12:53 3/17/11 23:15

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | 2 | | 4 | 0.1155431 |
| Acrolein | 500.2 | 4.537999E-02 | 750.3 | 4.671631E-02 | 1000 | 4.647195E-02 | | | | | | |
| Acrylonitrile | 499.8 | 8.020876E-02 | 749.7 | 8.652166E-02 | 999.6 | 8.833622E-02 | | | | | | |
| Benzene | 100 | 0.7898222 | 150 | 0.7975283 | 200 | 0.8063745 | | | | | | |
| Bromobenzene | 100 | 0.6187025 | 150 | 0.6222701 | 200 | 0.6471744 | | | | | | |
| Bromochloromethane | 100 | 0.1294359 | 150 | 0.1325201 | 200 | 0.1344625 | | | | | | |
| Tert-Amyl Methyl Ether | 100 | 0.6948232 | 150 | 0.6950278 | 200 | 0.6956089 | | | | | | |
| Bromodichloromethane | 100 | 0.4247199 | 150 | 0.4042228 | 200 | 0.3963136 | | | | | | |
| Bromoform | 100 | 0.4154828 | 150 | 0.4102604 | 200 | 0.3871125 | | | | | | |
| Bromomethane | 100 | 0.2492772 | 150 | 0.2501447 | 200 | 0.2481988 | | | | | | |
| Bromofluorobenzene | | | | | | | | | 30 | 0.8943864 | 40 | 0.8782409 |
| n-Butylbenzene | 100 | 1.514347 | 150 | 1.485248 | 200 | 1.486304 | | | | | | |
| 2-Butanone | | | | | | | | | 2 | | 4 | 6.401813E-02 |
| sec-Butylbenzene | 100 | 1.977237 | 150 | 1.94332 | 200 | 1.912932 | | | | | | |
| tert-Butylbenzene | 100 | 1.637947 | 150 | 1.616132 | 200 | 1.587974 | | | | | | |
| Carbon disulfide | 100 | 0.6709351 | 150 | 0.6913621 | 200 | 0.7122962 | | | | | | |
| Carbon tetrachloride | 100 | 0.4094476 | 150 | 0.3886809 | 200 | 0.3728976 | | | | | | |
| Chlorobenzene | 100 | 1.03645 | 150 | 1.013713 | 200 | 0.9655527 | | | | | | |
| Chloroethane | 100 | 0.1746583 | 150 | 0.1771378 | 200 | 0.1705082 | | | | | | |
| Chloroform | 100 | 0.5251731 | 150 | 0.5097682 | 200 | 0.4914869 | | | | | | |
| 2-Chloroethyl vinyl ether | 199.5 | 0.1412735 | 299.2 | 0.1437648 | 399 | 0.1429149 | | | | | | |
| Chloromethane | 100 | 0.3297665 | 150 | 0.3154371 | 200 | 0.3056923 | | | | | | |
| 1-Chlorohexane | 100.2 | 1.026593 | 150.3 | 0.9894423 | 200.4 | 0.9174486 | | | | | | |
| 2-Chlorotoluene | 100 | 1.608016 | 150 | 1.519558 | 200 | 1.582697 | | | | | | |
| 4-Chlorotoluene | 100 | 1.719894 | 150 | 1.625306 | 200 | 1.61196 | | | | | | |
| Cyclohexane | 100 | 0.3215786 | 150 | 0.332662 | 200 | 0.331074 | | | | | | |
| Dibromochloromethane | 100 | 0.5619766 | 150 | 0.5509758 | 200 | 0.500646 | | | | | | |
| 1,2-Dibromo-3-chloropropane | 100 | 0.1349941 | 150 | 0.1374441 | 200 | 0.1449123 | | | | | | |
| 1,2-Dibromoethane (EDB) | 100 | 0.4667893 | 150 | 0.4505717 | 200 | 0.4302985 | | | | | | |
| Dibromomethane | 100 | 0.2059913 | 150 | 0.2000632 | 200 | 0.1976889 | | | | | | |
| 1,2-Dichlorobenzene | 100 | 1.031498 | 150 | 1.016431 | 200 | 1.025431 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 100 | 1.108741 | 150 | 1.130816 | 200 | 1.128786 | | | | | | |
| 1,4-Dichlorobenzene | 100 | 1.134239 | 150 | 1.118917 | 200 | 1.115377 | | | | | | |
| Dichlorodifluoromethane | 100 | 0.3528406 | 150 | 0.3374166 | 200 | 0.2987596 | | | | | | |
| 1,1-Dichloroethane | 100 | 0.4745472 | 150 | 0.4731673 | 200 | 0.4769946 | | | | | | |
| 1,2-Dichloroethane | 100 | 0.5198466 | 150 | 0.5000919 | 200 | 0.4722982 | | | | | | |
| 1,1-Dichloroethene | 100 | 0.193752 | 150 | 0.1997432 | 200 | 0.2021713 | | | | | | |
| cis-1,2-Dichloroethene | 100 | 0.2478902 | 150 | 0.248514 | 200 | 0.2531567 | | | | | | |
| trans-1,2-Dichloroethene | 100 | 0.222446 | 150 | 0.2329343 | 200 | 0.2379576 | | | | | | |
| 1,2-Dichloroethene (total) | 200 | 0.2351681 | 300 | 0.2407242 | 400 | 0.2455572 | | | | | | |
| 1,2-Dichloropropane | 100 | 0.2367122 | 150 | 0.2358734 | 200 | 0.2448404 | | | | | | |
| 1,3-Dichloropropane | 100 | 0.6937736 | 150 | 0.6752094 | 200 | 0.6407095 | | | | | | |
| 2,2-Dichloropropane | 100 | 0.4166805 | 150 | 0.3912986 | 200 | 0.3899277 | | | | | | |
| 1,1-Dichloropropene | 100 | 0.3616764 | 150 | 0.3541348 | 200 | 0.3561577 | | | | | | |
| cis-1,3-Dichloropropene | 100 | 0.4507282 | 150 | 0.4365991 | 200 | 0.4359175 | | | | | | |
| trans-1,3-Dichloropropene | 100 | 0.7237757 | 150 | 0.7100555 | 200 | 0.6640482 | | | | | | |
| Diisopropyl Ether | 100 | 0.8578372 | 150 | 0.898002 | 200 | 0.9225843 | | | | | | |
| Ethylbenzene | 100 | 1.819871 | 150 | 1.71527 | 200 | 1.537014 | | | | | | |
| Ethyl tert-Butyl Ether | 100 | 0.7863012 | 150 | 0.7939053 | 200 | 0.8125347 | | | | | | |
| Ethyl Methacrylate | 100 | 0.5617984 | 150 | 0.5650667 | 200 | 0.5395296 | | | | | | |
| Hexachlorobutadiene | 100 | 0.3289285 | 150 | 0.3234147 | 200 | 0.3372599 | | | | | | |
| 2-Hexanone | | | | | | | | | 2 | 9.931979E-02 | 4 | 0.1971067 |
| Iodomethane | 100 | 0.4042131 | 150 | 0.4078242 | 200 | 0.4056416 | | | | | | |
| Isopropylbenzene | 100 | 1.531807 | 150 | 1.427509 | 200 | 1.304044 | | | | | | |
| p-Isopropyltoluene | 100 | 1.393249 | 150 | 1.365565 | 200 | 1.374954 | | | | | | |
| Methylene chloride | 100 | 0.241731 | 150 | 0.2603899 | 200 | 0.2635829 | | | | | | |
| Methyl Acetate | 100 | 0.2061918 | 150 | 0.2117359 | 200 | 0.2189216 | | | | | | |
| Methylcyclohexane | 100 | 0.2844625 | 150 | 0.2852673 | 200 | 0.2853802 | | | | | | |
| Naphthalene | 100 | 1.448814 | 150 | 1.409495 | 200 | 1.471859 | | | | | | |
| Methyl Methacrylate | 100 | 0.2787233 | 150 | 0.272668 | 200 | 0.2706149 | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | | | 2 | | 4 | 0.1396502 |
| Methyl t-Butyl Ether | 100 | 0.6704206 | 150 | 0.6770861 | 200 | 0.698072 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 100 | 2.427719 | 150 | 2.308448 | 200 | 2.263217 | | | | | | |
| Styrene | 100 | 1.140643 | 150 | 1.106706 | 200 | 1.030568 | | | | | | |
| 1,1,2,2-Tetrachloroethane | 100 | 0.6422802 | 150 | 0.6337047 | 200 | 0.6704276 | | | | | | |
| 1,1,1,2-Tetrachloroethane | 100 | 0.4536149 | 150 | 0.44524 | 200 | 0.4120404 | | | | | | |
| tert-Butyl alcohol | 500 | 2.620594E-02 | 750 | 2.767036E-02 | 1000 | 2.705806E-02 | | | | | | |
| Tetrachloroethene | 100 | 0.4505318 | 150 | 0.4445511 | 200 | 0.429221 | | | | | | |
| Toluene | 100 | 0.9009451 | 150 | 0.9079673 | 200 | 0.8388243 | | | | | | |
| 1,2,3-Trichlorobenzene | 100 | 0.5977418 | 150 | 0.6131081 | 200 | 0.6371271 | | | | | | |
| 1,2,4-Trichlorobenzene | 100 | 0.6614652 | 150 | 0.6722719 | 200 | 0.7168659 | | | | | | |
| 1,1,2-Trichloroethane | 100 | 0.337697 | 150 | 0.3297807 | 200 | 0.3079286 | | | | | | |
| 1,1,1-Trichloroethane | 100 | 0.4583119 | 150 | 0.4384645 | 200 | 0.4238678 | | | | | | |
| Tetrahydrofuran | 100 | 5.828799E-02 | 150 | 6.028031E-02 | 200 | 6.453969E-02 | | | | | | |
| Trichloroethene | 100 | 0.2636737 | 150 | 0.2625535 | 200 | 0.2516278 | | | | | | |
| Trichlorofluoromethane | 100 | 0.5165366 | 150 | 0.4953456 | 200 | 0.4562709 | | | | | | |
| 1,2,3-Trichloropropane | 100 | 0.1575376 | 150 | 0.1524221 | 200 | 0.1404905 | | | | | | |
| 1,3,5-Trimethylbenzene | 100 | 1.708823 | 150 | 1.649211 | 200 | 1.664883 | | | | | | |
| 1,2,4-Trimethylbenzene | 100 | 1.737568 | 150 | 1.686073 | 200 | 1.68656 | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 100 | 0.2473752 | 150 | 0.2455076 | 200 | 0.2358224 | | | | | | |
| Vinyl chloride | 100 | 0.3415414 | 150 | 0.3362422 | 200 | 0.3317518 | | | | | | |
| m,p-Xylene | 200 | 1.390881 | 300 | 1.283565 | 400 | 1.071972 | | | | | | |
| o-Xylene | 100 | 1.555729 | 150 | 1.421142 | 200 | 1.29972 | | | | | | |
| Vinyl acetate | 199.9 | 0.3335789 | 299.8 | 0.3433023 | 399.8 | 0.3564856 | | | | | | |
| Xylenes (total) | 300 | 1.44583 | 450 | 1.329424 | 600 | 1.147888 | | | | | | |
| Dibromofluoromethane | | | | | | | | | 30 | 0.3730294 | 40 | 0.3738719 |
| 1,2-Dichloroethane-d4 | | | | | | | | | 30 | 6.304818E-02 | 40 | 6.610084E-02 |
| Toluene-d8 | | | | | | | | | 30 | 1.85378 | 40 | 1.798374 |
| tert-Amyl alcohol | 500 | 0.0139922 | 750 | 1.536187E-02 | 1000 | 1.609601E-02 | | | | | | |
| tert-Amyl ethyl ether | 100 | 0.6394152 | 150 | 0.6326191 | 200 | 0.6363716 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 10 | 0.1048318 | 20 | 9.745761E-02 | 100 | 0.1115843 | 200 | 0.1184698 | 300 | 0.1226784 | 400 | 0.1175419 |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 50 | 0.8294758 | 60 | 0.8149449 | 70 | 0.8209916 | 30 | 0.9150239 | 30 | 0.9047329 | 30 | 0.8621954 |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 10 | 0.0744542 | 20 | 0.0793158 | 100 | 0.112114 | 200 | 0.1218397 | 300 | 0.1308349 | 400 | 0.1304908 |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 10 | 0.2586601 | 20 | 0.2502352 | 100 | 0.3584986 | 200 | 0.3739308 | 300 | 0.3917018 | 400 | 0.3732671 |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 10 | 0.1703839 | 20 | 0.1857293 | 100 | 0.2665153 | 200 | 0.2763331 | 300 | 0.2894801 | 400 | 0.2760566 |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 50 | 0.3650414 | 60 | 0.3566546 | 70 | 0.3579211 | 30 | 0.3959409 | 30 | 0.3860029 | 30 | 0.3868698 |
| 1,2-Dichloroethane-d4 | 50 | 6.471363E-02 | 60 | 6.077214E-02 | 70 | 6.252823E-02 | 30 | 6.261071E-02 | 30 | 6.597527E-02 | 30 | 6.830528E-02 |
| Toluene-d8 | 50 | 1.680284 | 60 | 1.720643 | 70 | 1.747087 | 30 | 1.916527 | 30 | 1.804347 | 30 | 1.81239 |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0307ICV1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV1 | Injection Time: | 17:25 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acrolein | A | 250.1 | 276.1 | 4.283427E-02 | 4.729787E-02 | | 10.4 | 20 |
| Acrylonitrile | A | 249.9 | 297.6 | 7.491512E-02 | 8.919248E-02 | | 19.1 | 20 |
| Benzene | A | 50.00 | 59.48 | 0.7397262 | 0.8799265 | | 19.0 | 20 |
| Bromodichloromethane | A | 50.00 | 53.75 | 0.393441 | 0.4229182 | | 7.5 | 20 |
| Bromoform | A | 50.00 | 57.40 | 0.3892677 | 0.4469115 | 0.1 | 14.8 | 20 |
| Bromomethane | A | 50.00 | 51.92 | 0.2262604 | 0.234957 | | 3.8 | 20 |
| Carbon tetrachloride | A | 50.00 | 49.09 | 0.3803403 | 0.3734151 | | -1.8 | 20 |
| Chlorobenzene | A | 50.00 | 55.74 | 1.095895 | 1.221753 | 0.3 | 11.5 | 20 |
| Chloroethane | A | 50.00 | 54.54 | 0.1608279 | 0.1754173 | | 9.1 | 20 |
| Chloroform | A | 50.00 | 49.17 | 0.5084763 | 0.5000049 | | -1.7 | 20 |
| 2-Chloroethyl vinyl ether | L | 99.75 | 106.7 | 0.1134227 | 0.1486194 | | 7.0 | 20 |
| Chloromethane | A | 50.00 | 57.49 | 0.2980831 | 0.3427103 | 0.1 | 15.0 | 20 |
| Dibromochloromethane | A | 50.00 | 58.28 | 0.5274875 | 0.6148636 | | 16.6 | 20 |
| 1,2-Dibromoethane (EDB) | A | 50.00 | 55.92 | 0.4534325 | 0.5070809 | | 11.8 | 20 |
| 1,1-Dichloroethane | A | 50.00 | 56.02 | 0.4332253 | 0.4854186 | 0.1 | 12.0 | 20 |
| 1,2-Dichloroethane | A | 50.00 | 47.12 | 0.4958155 | 0.4673052 | | -5.8 | 20 |
| 1,1-Dichloroethene | A | 50.00 | 59.42 | 0.1779832 | 0.2115188 | | 18.8 | 20 |
| cis-1,2-Dichloroethene | A | 50.00 | 57.97 | 0.2226177 | 0.2580961 | | 15.9 | 20 |
| trans-1,2-Dichloroethene | A | 50.00 | 59.92 | 0.2077027 | 0.2489035 | | 19.8 | 20 |
| 1,2-Dichloropropane | L | 50.00 | 51.37 | 0.2138675 | 0.2437518 | | 2.7 | 20 |
| cis-1,3-Dichloropropene | A | 50.00 | 54.53 | 0.3942719 | 0.4300312 | | 9.1 | 20 |
| Methyl t-Butyl Ether | A | 50.00 | 53.21 | 0.6052207 | 0.6440646 | | 6.4 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 50.00 | 52.93 | 0.6316098 | 0.6686627 | 0.3 | 5.9 | 20 |
| 1,2,4-Trichlorobenzene | A | 50.00 | 58.39 | 0.5974773 | 0.6977 | | 16.8 | 20 |
| 1,1,2-Trichloroethane | A | 50.00 | 56.21 | 0.3365667 | 0.3783446 | | 12.4 | 20 |
| 1,1,1-Trichloroethane | A | 50.00 | 49.81 | 0.4251429 | 0.4235339 | | -0.4 | 20 |
| Trichloroethene | A | 50.00 | 55.49 | 0.2427349 | 0.2693846 | | 11.0 | 20 |
| Vinyl chloride | L | 50.00 | 50.30 | 0.2947606 | 0.3316271 | | 0.6 | 20 |
| Xylenes (total) | A | 150.0 | 178.2 | 1.402973 | 1.666436 | | 18.8 | 20 |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0307ICV1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV1 | Injection Time: | 17:25 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Bromofluorobenzene | A | 30.00 | 30.02 | 0.864999 | 0.8654822 | | 0.06 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.13 | 0.3744165 | 0.3515641 | | -6.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.21 | 6.425678E-02 | 6.471411E-02 | | 0.7 | 20 |
| Toluene-d8 | A | 30.00 | 31.54 | 1.791679 | 1.883703 | | 5.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0307ICV2.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV2 | Injection Time: | 17:55 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| trans-1,3-Dichloropropene | L | 100.0 | 118.1 | 0.6325373 | 0.8172188 | | 18.1 | 20 |
| Ethylbenzene | A | 100.0 | 110.5 | 1.744482 | 1.927945 | | 10.5 | 20 |
| Tetrachloroethene | A | 100.0 | 114.1 | 0.4471173 | 0.5103314 | | 14.1 | 20 |
| Toluene | A | 100.0 | 114.8 | 0.898576 | 1.031524 | | 14.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08905 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08905-TUN1 | 0329TU1E.D | 03/29/11 19:03 |
| Calibration Check | 1C08905-CCV1 | 0329CC1E.D | 03/29/11 19:33 |
| LCS | 1C29011-BS1 | 0329LS1E.D | 03/29/11 20:03 |
| Blank | 1C29011-BLK1 | 0329BL1E.D | 03/29/11 21:31 |
| TRIP BLANK 9490 | 1103220-03 | 0322003.D | 03/29/11 22:32 |
| Trip Blank 9484 | 1103228-02 | 0322802.D | 03/29/11 23:02 |
| 05-MW-014 | 1103220-06 | 0322006.D | 03/30/11 01:02 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0329TU1E.D | Injection Date: | 03/29/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 19:03 |
| Sequence: | 1C08905 | Lab Sample ID: | 1C08905-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 30.7 | PASS |
| 75 | 30 - 60% of 95 | 57.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 8.18 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 64.3 | PASS |
| 175 | 5 - 9% of 174 | 8.07 | PASS |
| 176 | 95 - 101% of 174 | 95.4 | PASS |
| 177 | 5 - 9% of 176 | 7.56 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0329CC1E.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C08905 | Injection Date: | 03/29/11 |
| Lab Sample ID: | 1C08905-CCV1 | Injection Time: | 19:33 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acrolein | A | 500.2 | 455.5 | 4.283427E-02 | 3.902044E-02 | | -8.9 | 20 |
| Acrylonitrile | A | 499.8 | 526.6 | 7.491512E-02 | 7.890172E-02 | | 5.3 | 20 |
| Benzene | A | 100.0 | 111.4 | 0.7397262 | 0.8238188 | | 11.4 | 20 |
| Bromodichloromethane | A | 100.0 | 111.3 | 0.393441 | 0.4380717 | | 11.3 | 20 |
| Bromoform | A | 100.0 | 110.2 | 0.3892677 | 0.4287792 | 0.1 | 10.2 | 20 |
| Bromomethane | A | 100.0 | 105.8 | 0.2262604 | 0.2394917 | | 5.8 | 20 |
| Carbon tetrachloride | A | 100.0 | 109.3 | 0.3803403 | 0.4158091 | | 9.3 | 20 |
| Chlorobenzene | A | 100.0 | 98.09 | 1.095895 | 1.074944 | 0.3 | -1.9 | 20 |
| Chloroethane | A | 100.0 | 124.6 | 0.1608279 | 0.2003999 | | 24.6 | 20 * |
| Chloroform | A | 100.0 | 103.6 | 0.5084763 | 0.5269054 | | 3.6 | 20 |
| 2-Chloroethyl vinyl ether | L | 199.5 | 206.2 | 0.1134227 | 0.1461866 | | 3.4 | 20 |
| Chloromethane | A | 100.0 | 115.7 | 0.2980831 | 0.3449841 | 0.1 | 15.7 | 20 |
| Dibromochloromethane | A | 100.0 | 108.2 | 0.5274875 | 0.5708893 | | 8.2 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 102.4 | 0.4534325 | 0.4644347 | | 2.4 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 110.0 | 0.4332253 | 0.4766311 | 0.1 | 10.0 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 105.6 | 0.4958155 | 0.5236799 | | 5.6 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 114.5 | 0.1779832 | 0.203855 | | 14.5 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 113.8 | 0.2226177 | 0.253316 | | 13.8 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 109.3 | 0.2077027 | 0.2270306 | | 9.3 | 20 |
| 1,2-Dichloropropane | L | 100.0 | 100.1 | 0.2138675 | 0.2401526 | | 0.1 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 107.8 | 0.3942719 | 0.4249005 | | 7.8 | 20 |
| trans-1,3-Dichloropropene | L | 100.0 | 103.0 | 0.6325373 | 0.713734 | | 3.0 | 20 |
| Ethylbenzene | A | 100.0 | 108.0 | 1.744482 | 1.884296 | | 8.0 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 108.6 | 0.6052207 | 0.6570963 | | 8.6 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 102.9 | 0.6316098 | 0.6499429 | 0.3 | 2.9 | 20 |
| Tetrachloroethene | A | 100.0 | 105.3 | 0.4471173 | 0.4706494 | | 5.3 | 20 |
| Toluene | A | 100.0 | 105.6 | 0.898576 | 0.9492086 | | 5.6 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 112.4 | 0.5974773 | 0.6718901 | | 12.5 | 20 |
| 1,1,2-Trichloroethane | A | 100.0 | 103.4 | 0.3365667 | 0.3480136 | | 3.4 | 20 |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0329CC1E.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C08905 | Injection Date: | 03/29/11 |
| Lab Sample ID: | 1C08905-CCV1 | Injection Time: | 19:33 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,1,1-Trichloroethane | A | 100.0 | 109.6 | 0.4251429 | 0.4657916 | | 9.6 | 20 |
| Trichloroethene | A | 100.0 | 110.4 | 0.2427349 | 0.2679409 | | 10.4 | 20 |
| Vinyl chloride | L | 100.0 | 117.3 | 0.2947606 | 0.3907644 | | 17.3 | 20 |
| Xylenes (total) | A | 300.0 | 313.8 | 1.402973 | 1.467841 | | 4.6 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.84 | 0.864999 | 0.831672 | | -3.9 | 20 |
| Dibromofluoromethane | A | 30.00 | 29.03 | 0.3744165 | 0.3627915 | | -3.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 28.97 | 6.425678E-02 | 6.204223E-02 | | -3.4 | 20 |
| Toluene-d8 | A | 30.00 | 27.71 | 1.791679 | 1.655129 | | -7.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Sequence: 1C08401

Calibration: 1084002

SDG: CTOJM26_002

Project: NAS Pensacola CTO JM26 Saufley

Instrument: MS-VOA3

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08401-TUN1 | 0324TUN1.D | 03/24/11 15:50 |
| Cal Standard | 1C08401-CAL1 | 0324CAL1.D | 03/24/11 16:28 |
| Cal Standard | 1C08401-CAL2 | 0324CAL2.D | 03/24/11 16:52 |
| Cal Standard | 1C08401-CAL3 | 0324CAL3.D | 03/24/11 17:16 |
| Cal Standard | 1C08401-CAL4 | 0324CAL4.D | 03/24/11 17:39 |
| Cal Standard | 1C08401-CAL5 | 0324CAL5.D | 03/24/11 18:03 |
| Cal Standard | 1C08401-CAL6 | 0324CAL6.D | 03/24/11 18:27 |
| Cal Standard | 1C08401-CAL7 | 0324CAL7.D | 03/24/11 18:51 |
| Cal Standard | 1C08401-CAL8 | 0324CAL8.D | 03/24/11 19:15 |
| Initial Cal Check | 1C08401-ICV2 | 0324ICV2.D | 03/24/11 20:03 |
| Cal Standard | 1C08401-CAL9 | 0324CAL9.D | 03/24/11 20:26 |
| Cal Standard | 1C08401-CALA | 0324CALA.D | 03/24/11 20:50 |
| Cal Standard | 1C08401-CALB | 0324CALB.D | 03/24/11 21:14 |
| Cal Standard | 1C08401-CALC | 0324CALC.D | 03/24/11 21:38 |
| Cal Standard | 1C08401-CALD | 0324CALD.D | 03/24/11 22:02 |
| Cal Standard | 1C08401-CALE | 0324CALE.D | 03/24/11 22:26 |
| Cal Standard | 1C08401-CALF | 0324CALF.D | 03/24/11 22:50 |
| Cal Standard | 1C08401-CALG | 0324CALG.D | 03/24/11 23:13 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0324TUN1.D | Injection Date: | 03/24/11 |
| Instrument ID: | MS-VOA3 | Injection Time: | 15:50 |
| Sequence: | 1C08401 | Lab Sample ID: | 1C08401-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 23.8 | PASS |
| 75 | 30 - 60% of 95 | 56 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.99 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 61.8 | PASS |
| 175 | 5 - 9% of 174 | 8.78 | PASS |
| 176 | 95 - 101% of 174 | 100 | PASS |
| 177 | 5 - 9% of 176 | 8.35 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1084002

Instrument: MS-VOA3

Matrix: Water

Calibration Dates: 3/24/11 16:28 3/24/11 23:13

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.0943742 | 14.55504 | 3.405857 | 6.560833E-02 | | | 15 | |
| Acrolein | 4.645978E-02 | 11.7463 | 3.30325 | 9.426194E-02 | | | 15 | |
| Acrylonitrile | 6.917202E-02 | 9.453234 | 4.20875 | 5.161596E-02 | | | 15 | |
| Benzene | 1.22848 | 8.823366 | 7.329 | 4.221221E-03 | | | 15 | |
| Bromobenzene | 0.8773387 | 9.178822 | 12.1635 | 2.869848E-02 | | | 15 | |
| Bromochloromethane | 0.147781 | 7.557445 | 6.401 | 5.436782E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.9990058 | 8.521403 | 7.529125 | 1.268706E-02 | | | 15 | |
| Bromodichloromethane | 0.5278062 | 8.20835 | 8.33775 | 2.008301E-02 | | | 15 | |
| Bromoform | 0.5282838 | 7.984887 | 11.56 | 2.495186E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2226631 | 19.07238 | 2.5545 | 0.1088517 | 0.9987775 | | 0.995 | |
| Bromofluorobenzene | 0.9368468 | 1.806907 | 12.001 | 2.293448E-02 | | | 15 | |
| n-Butylbenzene | 3.31971 | 14.19917 | 13.625 | 0 | | | 15 | |
| 2-Butanone | 0.121756 | 10.21639 | 5.8485 | 5.138934E-02 | | | 15 | |
| sec-Butylbenzene | 3.847039 | 12.33736 | 13.07243 | 1.527649E-02 | | | 15 | |
| tert-Butylbenzene | 2.893854 | 10.63482 | 12.83625 | 2.351397E-02 | | | 15 | |
| Carbon disulfide | 0.9327312 | 7.187628 | 4.38325 | 4.431978E-02 | | | 15 | |
| Carbon tetrachloride | 0.6513402 | 9.425426 | 7.292 | 1.851225E-02 | | | 15 | |
| Chlorobenzene | 1.669366 | 8.98818 | 10.82325 | 2.574228E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.2402181 | 10.7084 | 2.67725 | 0.116152 | | | 15 | |
| Chloroform | 0.7058011 | 9.900754 | 6.376 | 5.352377E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.113231 | 8.998339 | 8.71 | 2.150294E-02 | | | 15 | |
| Chloromethane | 0.4201521 | 14.10686 | 2.0225 | 0.136933 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.874131 | 10.98859 | 10.79825 | 2.670176E-02 | | | 15 | |
| 2-Chlorotoluene | 2.649329 | 13.40043 | 12.39 | 2.278093E-02 | | | 15 | |
| 4-Chlorotoluene | 2.882751 | 12.52818 | 12.45475 | 0.0291512 | | | 15 | |
| Cyclohexane | 0.5127062 | 6.59691 | 7.225 | 1.525793E-02 | | | 15 | |
| Dibromochloromethane | 0.6996512 | 7.296291 | 10.042 | 1.344267E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1780558 | 9.924233 | 14.22875 | 1.652054E-02 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5598444 | 9.355849 | 10.2595 | 0.0283196 | | | 15 | |
| Dibromomethane | 0.2003264 | 9.384621 | 8.2705 | 2.913728E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.522092 | 11.1647 | 13.57638 | 5.478177E-03 | | | 15 | |
| 1,3-Dichlorobenzene | 1.616689 | 11.61485 | 13.16 | 2.805385E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.617872 | 12.36553 | 13.254 | 1.892853E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.5481369 | 22.71957 | 1.825 | 0.1693666 | 0.9976465 | | 0.995 | |
| 1,1-Dichloroethane | 0.6418416 | 7.912823 | 5.39325 | 3.600639E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.5809421 | 9.837355 | 7.1535 | 4.115623E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2667613 | 7.485975 | 3.84975 | 5.721078E-02 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3362532 | 7.16281 | 6.118 | 1.051599E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.3079811 | 6.991628 | 5.011 | 7.177771E-03 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.3221172 | 6.728325 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.3193487 | 7.657586 | 8.156 | 1.721878E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.9412625 | 9.865866 | 9.783 | 2.942164E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.6935306 | 8.295185 | 6.2275 | 1.235157E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.5400686 | 7.955368 | 7.17425 | 4.082877E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.5804352 | 8.121972 | 8.92825 | 9.121154E-03 | | | 15 | |
| trans-1,3-Dichloropropene | 1.06691 | 9.609075 | 9.412 | 0.0373864 | | | 15 | |
| Diisopropyl Ether | 0.980286 | 7.680094 | 5.77625 | 4.141182E-02 | | | 15 | |
| Ethylbenzene | 3.220098 | 14.3421 | 10.97825 | 2.321444E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 1.025267 | 8.295756 | 6.252 | 0.0139079 | | | 15 | |
| Ethyl Methacrylate | 0.7986958 | 8.94952 | 9.61 | 1.976334E-02 | | | 15 | |
| Hexachlorobutadiene | 1.006211 | 10.55602 | 15.608 | 1.826236E-02 | | | 15 | |
| 2-Hexanone | 0.388178 | 9.995251 | 9.72575 | 1.740734E-02 | | | 15 | |
| Iodomethane | 0.3423661 | 13.81851 | 4.040375 | 8.336408E-02 | | | 15 | |
| Isopropylbenzene | 2.822128 | 12.30466 | 11.891 | 1.295868E-02 | | | 15 | |
| p-Isopropyltoluene | 3.087494 | 14.19547 | 13.21763 | 1.498612E-02 | | | 15 | |
| Methylene chloride | 0.3282087 | 13.75888 | 4.33475 | 0.0532129 | | | 15 | |
| Methyl Acetate | 0.1606762 | 10.13311 | 4.195 | 0.1006344 | | | 15 | |
| Methylcyclohexane | 0.5845809 | 6.769549 | 8.491 | 3.221635E-03 | | | 15 | |
| Naphthalene | 2.152806 | 11.81131 | 15.47463 | 1.436065E-02 | | | 15 | |
| Methyl Methacrylate | 0.2740916 | 10.19149 | 8.302 | 1.929578E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.2690133 | 9.631195 | 8.853375 | 3.869204E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.9586598 | 8.092213 | 5.0065 | 5.495763E-02 | | | 15 | |
| n-Propylbenzene | 4.235081 | 14.25477 | 12.30929 | 1.511897E-02 | | | 15 | |
| Styrene | 1.938488 | 8.62221 | 11.459 | 1.493631E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.7195702 | 11.38443 | 11.818 | 1.993521E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6862618 | 7.3998 | 10.869 | 6.745998E-03 | | | 15 | |
| tert-Butyl alcohol | 3.684326E-02 | 11.62049 | 3.9875 | 0.1064662 | | | 15 | |
| Tetrachloroethene | 0.8251398 | 8.178901 | 10.15512 | 3.306485E-02 | | | 15 | |
| Toluene | 1.544 | 7.755856 | 9.40825 | 0.023762 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 1.177934 | 11.69648 | 15.766 | 9.795879E-03 | | | 15 | |
| 1,2,4-Trichlorobenzene | 1.288633 | 13.01661 | 15.32237 | 6.878807E-03 | | | 15 | |
| 1,1,2-Trichloroethane | 0.4451156 | 9.196896 | 9.567125 | 6.145799E-03 | | | 15 | |
| 1,1,1-Trichloroethane | 0.731964 | 9.629171 | 6.947375 | 4.835165E-02 | | | 15 | |
| Tetrahydrofuran | 7.523258E-02 | 14.74914 | 6.587 | 4.048346E-02 | | | 15 | |
| Trichloroethene | 0.3802286 | 8.479593 | 8.107 | 2.145052E-02 | | | 15 | |
| Trichlorofluoromethane | 0.7317943 | 8.387682 | 3.131 | 2.043875E-02 | | | 15 | |
| 1,2,3-Trichloropropane | 0.2166365 | 9.990932 | 11.94525 | 2.597326E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.977386 | 14.80154 | 12.49075 | 3.046671E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 3.107256 | 12.26285 | 12.86671 | 2.621417E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.322562 | 7.517036 | 3.92875 | 5.532812E-02 | | | 15 | |
| Vinyl chloride | 0.4593234 | 10.23728 | 2.154625 | 0.1675785 | | | CCC (20) | |
| m,p-Xylene | 2.768768 | 9.920417 | 11.09 | 0.0270077 | | | 15 | |
| o-Xylene | 2.723288 | 13.78882 | 11.48925 | 2.120329E-02 | | | 15 | |
| Vinyl acetate | 0.2979053 | 8.774438 | 5.473 | 5.751247E-03 | | | 15 | |
| Xylenes (total) | 2.695919 | 14.30374 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3028523 | 4.620275 | 6.55075 | 3.777633E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 4.935111E-02 | 8.341069 | 7.061 | 7.615443E-03 | | | 15 | |
| Toluene-d8 | 1.998002 | 3.134392 | 9.33 | 1.531626E-02 | | | 15 | |
| tert-Amyl alcohol | 2.971617E-02 | 12.06568 | 6.76 | 4.764453E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.8395449 | 8.31716 | 8.439 | 3.765604E-02 | | | 15 | |

# INITIAL CALIBRATION DATA
## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_002
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1084002
Instrument: MS-VOA3
Matrix: Water
Calibration Dates: ~~3/24/11 16:28~~ 3/24/11 23:13

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 10 | 4.718308E-02 | 25.01 | 4.540945E-02 | 50.02 | 3.576433E-02 | 100 | 5.231786E-02 | 250.1 | 4.837525E-02 | 500.2 | 5.323331E-02 |
| Acrylonitrile | 9.996 | 6.809234E-02 | 24.99 | 7.679384E-02 | 49.98 | 6.096918E-02 | 99.96 | 7.311899E-02 | 249.9 | 6.831361E-02 | 499.8 | 7.872826E-02 |
| Benzene | 2 | 1.276903 | 5 | 1.310813 | 10 | 1.213605 | 20 | 1.39708 | 50 | 1.191583 | 100 | 1.266178 |
| Bromobenzene | 2 | 0.9362905 | 5 | 0.9486619 | 10 | 0.8951454 | 20 | 0.9898396 | 50 | 0.8613837 | 100 | 0.8450578 |
| Bromochloromethane | 2 | 0.1593876 | 5 | 0.155288 | 10 | 0.1388519 | 20 | 0.1639486 | 50 | 0.141417 | 100 | 0.1516537 |
| Tert-Amyl Methyl Ether | 2 | 1.05652 | 5 | 1.048038 | 10 | 0.9442272 | 20 | 1.118667 | 50 | 0.9905409 | 100 | 1.05501 |
| Bromodichloromethane | 2 | 0.5184996 | 5 | 0.5437053 | 10 | 0.5109446 | 20 | 0.6081368 | 50 | 0.52134 | 100 | 0.5618151 |
| Bromoform | 2 | 0.5218864 | 5 | 0.5167199 | 10 | 0.4834738 | 20 | 0.5946092 | 50 | 0.5239687 | 100 | 0.5909978 |
| Bromomethane | 2 | 0.1923602 | 5 | 0.1508685 | 10 | 0.180778 | 20 | 0.2413241 | 50 | 0.2376676 | 100 | 0.2696937 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 2 | 3.580496 | 5 | 3.704767 | 10 | 3.274801 | 20 | 3.930938 | 50 | 3.230288 | 100 | 2.985259 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 2 | 4.160097 | 5 | 4.113176 | 10 | 3.823272 | 20 | 4.505192 | 50 | 3.721262 | 100 | 3.56918 |
| tert-Butylbenzene | 2 | 3.081912 | 5 | 3.123703 | 10 | 2.880348 | 20 | 3.372085 | 50 | 2.887356 | 100 | 2.842516 |
| Carbon disulfide | 2 | 0.8919725 | 5 | 0.9002753 | 10 | 0.856212 | 20 | 1.068005 | 50 | 0.9348282 | 100 | 0.9918067 |
| Carbon tetrachloride | 2 | 0.6210206 | 5 | 0.6807156 | 10 | 0.6479417 | 20 | 0.7639907 | 50 | 0.6531704 | 100 | 0.6843615 |
| Chlorobenzene | 2 | 1.760588 | 5 | 1.77381 | 10 | 1.656836 | 20 | 1.913015 | 50 | 1.597604 | 100 | 1.696317 |
| Chloroethane | 2 | 0.1877248 | 5 | 0.2409659 | 10 | 0.2246076 | 20 | 0.2598145 | 50 | 0.2556206 | 100 | 0.2718527 |
| Chloroform | 2 | 0.7637208 | 5 | 0.7543577 | 10 | 0.6954771 | 20 | 0.8015523 | 50 | 0.6918162 | 100 | 0.7204286 |
| 2-Chloroethyl vinyl ether | 3.99 | 0.1111338 | 9.975 | 0.1249223 | 19.95 | 0.1067195 | 39.9 | 0.1255586 | 99.75 | 0.1079033 | 199.5 | 0.1244494 |
| Chloromethane | 2 | 0.3296029 | 5 | 0.3798594 | 10 | 0.3684768 | 20 | 0.5140558 | 50 | 0.4453573 | 100 | 0.4707732 |
| 1-Chlorohexane | 2.004 | 2.048759 | 5.01 | 2.053249 | 10.02 | 1.829655 | 20.04 | 2.171032 | 50.1 | 1.801939 | 100.2 | 1.866584 |
| 2-Chlorotoluene | 2 | 2.898044 | 5 | 2.922334 | 10 | 2.67905 | 20 | 3.174162 | 50 | 2.649545 | 100 | 2.515885 |
| 4-Chlorotoluene | 2 | 3.314482 | 5 | 3.027229 | 10 | 2.734275 | 20 | 3.24056 | 50 | 3.066877 | 100 | 2.891833 |
| Cyclohexane | 2 | 0.5166454 | 5 | 0.5197021 | 10 | 0.4839469 | 20 | 0.5788784 | 50 | 0.5014471 | 100 | 0.5377611 |
| Dibromochloromethane | 2 | 0.7056507 | 5 | 0.689646 | 10 | 0.6673741 | 20 | 0.7984914 | 50 | 0.6963126 | 100 | 0.7436025 |
| 1,2-Dibromo-3-chloropropane | 2 | 0.1785701 | 5 | 0.1758869 | 10 | 0.1527359 | 20 | 0.1978442 | 50 | 0.1767673 | 100 | 0.2079269 |
| 1,2-Dibromoethane (EDB) | 2 | 0.563936 | 5 | 0.5927754 | 10 | 0.5357272 | 20 | 0.6540843 | 50 | 0.5497601 | 100 | 0.5874461 |
| Dibromomethane | 2 | 0.1816026 | 5 | 0.2141303 | 10 | 0.1901232 | 20 | 0.2310823 | 50 | 0.1986199 | 100 | 0.2186464 |
| 1,2-Dichlorobenzene | 2 | 1.603786 | 5 | 1.743903 | 10 | 1.506121 | 20 | 1.720751 | 50 | 1.528421 | 100 | 1.48524 |

# INITIAL CALIBRATION DATA

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1084002

Instrument: MS-VOA3

Matrix: Water

Calibration Dates: 3/24/11 16:28 3/24/11 23:13

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 2 | 1.759321 | 5 | 1.827388 | 10 | 1.638987 | 20 | 1.840397 | 50 | 1.58793 | 100 | 1.547793 |
| 1,4-Dichlorobenzene | 2 | 1.804076 | 5 | 1.795444 | 10 | 1.669191 | 20 | 1.849967 | 50 | 1.592061 | 100 | 1.544461 |
| Dichlorodifluoromethane | 2 | 0.4610732 | 5 | 0.450897 | 10 | 0.4026652 | 20 | 0.6973407 | 50 | 0.6186542 | 100 | 0.6581909 |
| 1,1-Dichloroethane | 2 | 0.6390199 | 5 | 0.6417759 | 10 | 0.6293412 | 20 | 0.7408621 | 50 | 0.6399771 | 100 | 0.6768548 |
| 1,2-Dichloroethane | 2 | 0.5753138 | 5 | 0.6028438 | 10 | 0.5748886 | 20 | 0.676424 | 50 | 0.5844033 | 100 | 0.6199332 |
| 1,1-Dichloroethene | 2 | 0.2605617 | 5 | 0.2574515 | 10 | 0.252707 | 20 | 0.3026478 | 50 | 0.2637256 | 100 | 0.293571 |
| cis-1,2-Dichloroethene | 2 | 0.3580624 | 5 | 0.3390213 | 10 | 0.3272177 | 20 | 0.376235 | 50 | 0.3254066 | 100 | 0.3484763 |
| trans-1,2-Dichloroethene | 2 | 0.2983795 | 5 | 0.3129982 | 10 | 0.2951576 | 20 | 0.3563239 | 50 | 0.3018315 | 100 | 0.3155473 |
| 1,2-Dichloroethene (total) | 4 | 0.328221 | 10 | 0.3260098 | 20 | 0.3111877 | 40 | 0.3662794 | 100 | 0.3136191 | 200 | 0.3320118 |
| 1,2-Dichloropropane | 2 | 0.3449084 | 5 | 0.3244265 | 10 | 0.3043155 | 20 | 0.35872 | 50 | 0.30586 | 100 | 0.3310053 |
| 1,3-Dichloropropane | 2 | 0.9866503 | 5 | 1.042841 | 10 | 0.9107234 | 20 | 1.059057 | 50 | 0.9012543 | 100 | 0.9888398 |
| 2,2-Dichloropropane | 2 | 0.7115245 | 5 | 0.7234976 | 10 | 0.6831642 | 20 | 0.7915857 | 50 | 0.6887086 | 100 | 0.714937 |
| 1,1-Dichloropropene | 2 | 0.5342425 | 5 | 0.5737605 | 10 | 0.5288332 | 20 | 0.6171341 | 50 | 0.5313216 | 100 | 0.5568054 |
| cis-1,3-Dichloropropene | 2 | 0.6029163 | 5 | 0.6016972 | 10 | 0.5662066 | 20 | 0.6594453 | 50 | 0.5673611 | 100 | 0.6041935 |
| trans-1,3-Dichloropropene | 2 | 1.126182 | 5 | 1.154397 | 10 | 1.056724 | 20 | 1.211409 | 50 | 1.030299 | 100 | 1.101254 |
| Diisopropyl Ether | 2 | 0.9802899 | 5 | 1.026799 | 10 | 0.9510319 | 20 | 1.111667 | 50 | 0.9672488 | 100 | 1.028444 |
| Ethylbenzene | 2 | 3.532374 | 5 | 3.638361 | 10 | 3.349921 | 20 | 3.814835 | 50 | 3.12965 | 100 | 3.139536 |
| Ethyl tert-Butyl Ether | 2 | 1.026469 | 5 | 1.081875 | 10 | 1.00907 | 20 | 1.160489 | 50 | 1.015525 | 100 | 1.081851 |
| Ethyl Methacrylate | 2 | 0.8352859 | 5 | 0.8615429 | 10 | 0.7650243 | 20 | 0.8987121 | 50 | 0.7637407 | 100 | 0.8460486 |
| Hexachlorobutadiene | 2 | 1.02287 | 5 | 1.092918 | 10 | 1.039304 | 20 | 1.157521 | 50 | 1.042603 | 100 | 0.9790687 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 2 | 0.2746078 | 5 | 0.2948573 | 10 | 0.2941984 | 20 | 0.3921998 | 50 | 0.3614046 | 100 | 0.3950398 |
| Isopropylbenzene | 2 | 3.002951 | 5 | 3.071255 | 10 | 2.919454 | 20 | 3.318605 | 50 | 2.744629 | 100 | 2.853803 |
| p-Isopropyltoluene | 2 | 3.346385 | 5 | 3.468966 | 10 | 3.210667 | 20 | 3.666856 | 50 | 3.082853 | 100 | 2.980436 |
| Methylene chloride | 2 | 0.4249871 | 5 | 0.3618247 | 10 | 0.3086097 | 20 | 0.3179165 | 50 | 0.3024331 | 100 | 0.3258056 |
| Methyl Acetate | 2 | 0.1609619 | 5 | 0.174287 | 10 | 0.1433634 | 20 | 0.1824168 | 50 | 0.1601206 | 100 | 0.1772709 |
| Methylcyclohexane | 2 | 0.6110501 | 5 | 0.5949845 | 10 | 0.5592969 | 20 | 0.6621307 | 50 | 0.5651513 | 100 | 0.5920006 |
| Naphthalene | 2 | 2.287816 | 5 | 2.369734 | 10 | 2.07492 | 20 | 2.470823 | 50 | 2.239016 | 100 | 2.199447 |
| Methyl Methacrylate | 2 | 0.2791907 | 5 | 0.2950623 | 10 | 0.25038 | 20 | 0.3058897 | 50 | 0.2707769 | 100 | 0.3081138 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 2 | 0.9925519 | 5 | 0.9773194 | 10 | 0.9028557 | 20 | 1.079096 | 50 | 0.9457577 | 100 | 1.035747 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 2 | 4.667661 | 5 | 4.757468 | 10 | 4.200831 | 20 | 4.904818 | 50 | 4.106009 | 100 | 3.814641 |
| Styrene | 2 | 2.095258 | 5 | 2.023928 | 10 | 1.920061 | 20 | 2.188009 | 50 | 1.868833 | 100 | 1.969381 |
| 1,1,2,2-Tetrachloroethane | 2 | 0.7800792 | 5 | 0.8301842 | 10 | 0.680087 | 20 | 0.8116744 | 50 | 0.6962265 | 100 | 0.7214581 |
| 1,1,1,2-Tetrachloroethane | 2 | 0.6553251 | 5 | 0.7311071 | 10 | 0.681125 | 20 | 0.768202 | 50 | 0.6740964 | 100 | 0.723924 |
| tert-Butyl alcohol | 10 | 4.018626E-02 | 25 | 3.601466E-02 | 50 | 3.369601E-02 | 100 | 3.883568E-02 | 250 | 3.598558E-02 | 500 | 0.0448896 |
| Tetrachloroethene | 2 | 0.8837803 | 5 | 0.8544458 | 10 | 0.8227403 | 20 | 0.9368204 | 50 | 0.799319 | 100 | 0.8234659 |
| Toluene | 2 | 1.596087 | 5 | 1.593971 | 10 | 1.560496 | 20 | 1.756873 | 50 | 1.493339 | 100 | 1.567679 |
| 1,2,3-Trichlorobenzene | 2 | 1.199711 | 5 | 1.278992 | 10 | 1.190679 | 20 | 1.387876 | 50 | 1.227176 | 100 | 1.164325 |
| 1,2,4-Trichlorobenzene | 2 | 1.385271 | 5 | 1.444824 | 10 | 1.279525 | 20 | 1.506124 | 50 | 1.337462 | 100 | 1.247468 |
| 1,1,2-Trichloroethane | 2 | 0.4859295 | 5 | 0.4740606 | 10 | 0.4343624 | 20 | 0.4998458 | 50 | 0.4269832 | 100 | 0.4559638 |
| 1,1,1-Trichloroethane | 2 | 0.7237864 | 5 | 0.7716331 | 10 | 0.7352524 | 20 | 0.8599517 | 50 | 0.7226711 | 100 | 0.7554798 |
| Tetrahydrofuran | 2 | 9.793804E-02 | 5 | 7.931456E-02 | 10 | 6.867652E-02 | 20 | 7.683518E-02 | 50 | 0.0707224 | 100 | 7.980413E-02 |
| Trichloroethene | 2 | 0.3969648 | 5 | 0.4068848 | 10 | 0.3735916 | 20 | 0.4327706 | 50 | 0.3700448 | 100 | 0.3830445 |
| Trichlorofluoromethane | 2 | 0.7009243 | 5 | 0.7379481 | 10 | 0.6939371 | 20 | 0.8627221 | 50 | 0.7289264 | 100 | 0.7660671 |
| 1,2,3-Trichloropropane | 2 | 0.2406404 | 5 | 0.2387969 | 10 | 0.2048996 | 20 | 0.2342203 | 50 | 0.206453 | 100 | 0.2294512 |
| 1,3,5-Trimethylbenzene | 2 | 3.332031 | 5 | 3.337961 | 10 | 3.036154 | 20 | 3.547532 | 50 | 3.011857 | 100 | 2.813287 |
| 1,2,4-Trimethylbenzene | 2 | 3.401212 | 5 | 3.364861 | 10 | 3.100138 | 20 | 3.564968 | 50 | 3.042247 | 100 | 2.819617 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 2 | 0.3059536 | 5 | 0.3226269 | 10 | 0.3242875 | 20 | 0.3674765 | 50 | 0.320434 | 100 | 0.3453948 |
| Vinyl chloride | 2 | 0.4116581 | 5 | 0.3928899 | 10 | 0.4318287 | 20 | 0.5257851 | 50 | 0.4781087 | 100 | 0.5161078 |
| m,p-Xylene | 4 | 2.907794 | 10 | 2.923722 | 20 | 2.773344 | 40 | 3.114805 | 100 | 2.502934 | 200 | 2.390009 |
| o-Xylene | 2 | 3.031125 | 5 | 3.050578 | 10 | 2.854082 | 20 | 3.170951 | 50 | 2.624284 | 100 | 2.653042 |
| Vinyl acetate | 3.998 | 0.3129057 | 9.995 | 0.3006002 | 19.99 | 0.264502 | 39.98 | 0.3303047 | 99.95 | 0.2992862 | 199.9 | 0.3300683 |
| Xylenes (total) | 6 | 2.948904 | 15 | 2.966007 | 30 | 2.800257 | 60 | 3.133521 | 150 | 2.543384 | 300 | 2.477686 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 10 | 0.0328151 | 25 | 3.081156E-02 | 50 | 2.543669E-02 | 100 | 0.0317617 | 250 | 3.069329E-02 | 500 | 3.462356E-02 |
| tert-Amyl ethyl ether | 2 | 0.8561313 | 5 | 0.8926893 | 10 | 0.8345126 | 20 | 0.9573273 | 50 | 0.8232031 | 100 | 0.8555576 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1084002

Instrument: MS-VOA3

Matrix: Water

Calibration Dates: 3/24/11 16:28 3/24/11 23:13

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | 4 | ~~0.1223585~~ | 10 | 0.111677 | 20 | 8.309721E-02 | 40 | 0.1148949 |
| Acrolein | 750.3 | 4.578785E-02 | 1000 | 4.360708E-02 | | | | | | | | |
| Acrylonitrile | 749.7 | 6.213051E-02 | 999.6 | 6.522945E-02 | | | | | | | | |
| Benzene | 150 | 1.108164 | 200 | 1.063512 | | | | | | | | |
| Bromobenzene | 150 | 0.7682656 | 200 | 0.7740652 | | | | | | | | |
| Bromochloromethane | 150 | 0.1352227 | 200 | 0.1364785 | | | | | | | | |
| Tert-Amyl Methyl Ether | 150 | 0.9055807 | 200 | 0.8734623 | | | | | | | | |
| Bromodichloromethane | 150 | 0.4860916 | 200 | 0.4719167 | | | | | | | | |
| Bromoform | 150 | 0.4986102 | 200 | 0.4960046 | | | | | | | | |
| Bromomethane | 150 | 0.2521518 | 200 | 0.2564611 | | | | | | | | |
| Bromofluorobenzene | | | | | 30 | 0.9071924 | 40 | 0.948703 | 50 | 0.938692 | 60 | 0.9585899 |
| n-Butylbenzene | 150 | 2.531423 | 200 | ~~2.31821~~ | | | | | | | | |
| 2-Butanone | | | | | 4 | 0.1319463 | 10 | 0.1273715 | 20 | 0.1174178 | 40 | 0.1454321 |
| sec-Butylbenzene | 150 | 3.037092 | 200 | ~~2.814299~~ | | | | | | | | |
| tert-Butylbenzene | 150 | 2.520742 | 200 | 2.442168 | | | | | | | | |
| Carbon disulfide | 150 | 0.9113053 | 200 | 0.9074448 | | | | | | | | |
| Carbon tetrachloride | 150 | 0.5964576 | 200 | 0.5630634 | | | | | | | | |
| Chlorobenzene | 150 | 1.481188 | 200 | 1.47557 | | | | | | | | |
| Chloroethane | 150 | 0.2427972 | 200 | 0.2383613 | | | | | | | | |
| Chloroform | 150 | 0.6206679 | 200 | 0.598388 | | | | | | | | |
| 2-Chloroethyl vinyl ether | 299.2 | 0.1048321 | 399 | 0.1003289 | | | | | | | | |
| Chloromethane | 150 | 0.426934 | 200 | 0.4261571 | | | | | | | | |
| 1-Chlorohexane | 150.3 | 1.623941 | 200.4 | 1.597887 | | | | | | | | |
| 2-Chlorotoluene | 150 | 2.237296 | 200 | 2.118312 | | | | | | | | |
| 4-Chlorotoluene | 150 | 2.539558 | 200 | 2.247195 | | | | | | | | |
| Cyclohexane | 150 | 0.486738 | 200 | 0.4765303 | | | | | | | | |
| Dibromochloromethane | 150 | 0.6442273 | 200 | 0.6519051 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 150 | 0.1709123 | 200 | 0.1638027 | | | | | | | | |
| 1,2-Dibromoethane (EDB) | 150 | 0.4957237 | 200 | 0.4993026 | | | | | | | | |
| Dibromomethane | 150 | 0.1876998 | 200 | 0.180707 | | | | | | | | |
| 1,2-Dichlorobenzene | 150 | 1.320149 | 200 | 1.268367 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Compound | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 150 | 1.37367 | 200 | 1.358026 | | | | | | | | |
| 1,4-Dichlorobenzene | 150 | 1.369065 | 200 | 1.31871 | | | | | | | | |
| Dichlorodifluoromethane | 150 | ~~0.5637774~~ | 200 | ~~0.5364935~~ | | | | | | | | |
| 1,1-Dichloroethane | 150 | 0.5878174 | 200 | 0.5790841 | | | | | | | | |
| 1,2-Dichloroethane | 150 | 0.5254446 | 200 | 0.4882852 | | | | | | | | |
| 1,1-Dichloroethene | 150 | 0.2520039 | 200 | 0.251422 | | | | | | | | |
| cis-1,2-Dichloroethene | 150 | 0.3101857 | 200 | 0.3054209 | | | | | | | | |
| trans-1,2-Dichloroethene | 150 | 0.289748 | 200 | 0.2938629 | | | | | | | | |
| 1,2-Dichloroethene (total) | 300 | 0.2999669 | 400 | 0.2996419 | | | | | | | | |
| 1,2-Dichloropropane | 150 | 0.2934819 | 200 | 0.2920717 | | | | | | | | |
| 1,3-Dichloropropane | 150 | 0.8139056 | 200 | 0.8268284 | | | | | | | | |
| 2,2-Dichloropropane | 150 | 0.6262027 | 200 | 0.6086247 | | | | | | | | |
| 1,1-Dichloropropene | 150 | 0.4981869 | 200 | 0.4802649 | | | | | | | | |
| cis-1,3-Dichloropropene | 150 | 0.5333571 | 200 | 0.5083047 | | | | | | | | |
| trans-1,3-Dichloropropene | 150 | 0.9232826 | 200 | 0.9317311 | | | | | | | | |
| Diisopropyl Ether | 150 | 0.8917644 | 200 | 0.885043 | | | | | | | | |
| Ethylbenzene | 150 | 2.651763 | 200 | 2.504344 | | | | | | | | |
| Ethyl tert-Butyl Ether | 150 | 0.9303657 | 200 | 0.896493 | | | | | | | | |
| Ethyl Methacrylate | 150 | 0.7087646 | 200 | 0.710447 | | | | | | | | |
| Hexachlorobutadiene | 150 | 0.8802489 | 200 | 0.8351566 | | | | | | | | |
| 2-Hexanone | | | | | 4 | 0.4295789 | 10 | 0.4275149 | 20 | 0.3648358 | 40 | 0.4447268 |
| Iodomethane | 150 | 0.3624555 | 200 | 0.3641653 | | | | | | | | |
| Isopropylbenzene | 150 | 2.397172 | 200 | 2.269159 | | | | | | | | |
| p-Isopropyltoluene | 150 | 2.548935 | 200 | 2.394858 | | | | | | | | |
| Methylene chloride | 150 | 0.2932495 | 200 | 0.2908433 | | | | | | | | |
| Methyl Acetate | 150 | 0.1474794 | 200 | 0.1395093 | | | | | | | | |
| Methylcyclohexane | 150 | 0.5528469 | 200 | 0.539186 | | | | | | | | |
| Naphthalene | 150 | 1.85256 | 200 | 1.728134 | | | | | | | | |
| Methyl Methacrylate | 150 | 0.2503448 | 200 | 0.2329743 | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | 4 | 0.2913922 | 10 | 0.2848575 | 20 | 0.2612932 | 40 | 0.316047 |
| Methyl t-Butyl Ether | 150 | 0.8830605 | 200 | 0.8528905 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 150 | 3.194136 | 200 | ~~2.921864~~ | | | | | | | | |
| Styrene | 150 | 1.741877 | 200 | 1.700555 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 150 | 0.622126 | 200 | 0.6147262 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 150 | 0.624675 | 200 | 0.6316395 | | | | | | | | |
| tert-Butyl alcohol | 750 | 3.309752E-02 | 1000 | 3.204076E-02 | | | | | | | | |
| Tetrachloroethene | 150 | 0.7362796 | 200 | 0.7442673 | | | | | | | | |
| Toluene | 150 | 1.384262 | 200 | 1.399292 | | | | | | | | |
| 1,2,3-Trichlorobenzene | 150 | 1.024123 | 200 | 0.950592 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 150 | 1.084427 | 200 | 1.023964 | | | | | | | | |
| 1,1,2-Trichloroethane | 150 | 0.3905298 | 200 | 0.3932498 | | | | | | | | |
| 1,1,1-Trichloroethane | 150 | 0.6582956 | 200 | 0.6286417 | | | | | | | | |
| Tetrahydrofuran | 150 | 6.554557E-02 | 200 | 6.302424E-02 | | | | | | | | |
| Trichloroethene | 150 | 0.3418672 | 200 | 0.3366608 | | | | | | | | |
| Trichlorofluoromethane | 150 | 0.699917 | 200 | 0.6639125 | | | | | | | | |
| 1,2,3-Trichloropropane | 150 | 0.1907687 | 200 | 0.1878622 | | | | | | | | |
| 1,3,5-Trimethylbenzene | 150 | 2.439308 | 200 | 2.300956 | | | | | | | | |
| 1,2,4-Trimethylbenzene | 150 | 2.457751 | 200 | ~~2.309005~~ | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 150 | 0.2959238 | 200 | 0.2983987 | | | | | | | | |
| Vinyl chloride | 150 | 0.4636681 | 200 | 0.454541 | | | | | | | | |
| m,p-Xylene | 300 | ~~1.871109~~ | 400 | ~~1.697938~~ | | | | | | | | |
| o-Xylene | 150 | 2.262795 | 200 | 2.139448 | | | | | | | | |
| Vinyl acetate | 299.8 | 0.2793827 | 399.8 | 0.2661927 | | | | | | | | |
| Xylenes (total) | 450 | 2.001671 | 600 | ~~1.845109~~ | | | | | | | | |
| Dibromofluoromethane | | | | | 30 | 0.2766643 | 40 | 0.3011087 | 50 | 0.3134115 | 60 | 0.315772 |
| 1,2-Dichloroethane-d4 | | | | | 30 | 4.600291E-02 | 40 | 0.04915 | 50 | 5.442762E-02 | 60 | 5.513991E-02 |
| Toluene-d8 | | | | | 30 | 1.993149 | 40 | 2.117716 | 50 | 2.041288 | 60 | 2.016577 |
| tert-Amyl alcohol | 750 | 2.645677E-02 | 1000 | 0.0251307 | | | | | | | | |
| tert-Amyl ethyl ether | 150 | 0.751582 | 200 | 0.7453558 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 100 | 9.178977E-02 | 200 | 7.926793E-02 | 300 | 8.767135E-02 | 400 | 9.222125E-02 | | | | |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 70 | 0.9364214 | 30 | 0.9533143 | 30 | 0.9256672 | 30 | 0.9261939 | | | | |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 100 | 0.1103859 | 200 | 0.1093927 | 300 | 0.1128004 | 400 | 0.1193009 | | | | |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 100 | 0.3597721 | 200 | 0.3463624 | 300 | 0.3629706 | 400 | 0.3696624 | | | | |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 100 | 0.2508698 | 200 | 0.2410635 | 300 | 0.2473483 | 400 | 0.2592348 | | | | |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084002 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 3/24/11 16:28 3/24/11 23:13 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 70 | 0.3172098 | 30 | 0.3058251 | 30 | 0.2891545 | 30 | 0.3036728 | | | | |
| 1,2-Dichloroethane-d4 | 70 | 5.063935E-02 | 30 | 4.823169E-02 | 30 | 4.267972E-02 | 30 | 4.853769E-02 | | | | |
| Toluene-d8 | 70 | 1.980941 | 30 | 1.946227 | 30 | 1.976369 | 30 | 1.911745 | | | | |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA3 | Calibration: | 1084002 |
| Lab File ID: | 0324ICV2.D | Calibration Date: | 03/24/11 16:28 |
| Sequence: | 1C08401 | Injection Date: | 03/24/11 |
| Lab Sample ID: | 1C08401-ICV2 | Injection Time: | 20:03 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 100.8 | 1.22848 | 1.238811 | | 0.8 | 20 |
| Ethylbenzene | A | 100.0 | 97.00 | 3.220098 | 3.12354 | | -3.0 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 96.60 | 0.9586598 | 0.9260748 | | -3.4 | 20 |
| Toluene | A | 100.0 | 102.7 | 1.544 | 1.585579 | | 2.7 | 20 |
| Xylenes (total) | A | 300.0 | 263.1 | 2.695919 | 2.413453 | | -10.5 | 20 |
| Bromofluorobenzene | A | 30.00 | 29.38 | 0.9368468 | 0.9173731 | | -2.1 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.61 | 0.3028523 | 0.2887726 | | -4.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 27.42 | 4.935111E-02 | 4.511425E-02 | | -8.6 | 20 |
| Toluene-d8 | A | 30.00 | 30.50 | 1.998002 | 2.031021 | | 1.7 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Sequence: 1C08902

Instrument: MS-VOA3

Calibration: 1084002

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08902-TUN1 | 0329TU1.D | 03/29/11 07:39 |
| Calibration Check | 1C08902-CCV1 | 0329CCV1.D | 03/29/11 08:03 |
| LCS | 1C29005-BS1 | 0329LS1.D | 03/29/11 08:27 |
| Blank | 1C29005-BLK1 | 0329BL1.D | 03/29/11 09:40 |
| 05-SS-013-0204-D | 1103220-04 | 0322004.D | 03/29/11 10:28 |
| 05-SS-014-0204 | 1103220-05 | 0322005.D | 03/29/11 10:52 |
| 05-SS-015-0204 | 1103220-07 | 0322007.D | 03/29/11 11:15 |
| 05-SS-016-0204 | 1103220-08 | 0322008.D | 03/29/11 11:39 |
| 05-SS-017-0204 | 1103220-09 | 0322009.D | 03/29/11 12:05 |
| 05-SS-018-1520 | 1103220-10 | 0322010.D | 03/29/11 12:29 |
| 05-SS-019-0204 | 1103220-11 | 0322011.D | 03/29/11 12:53 |
| 05-SS-020-0204 | 1103228-01 | 0322801.D | 03/29/11 13:17 |
| 05-SS-021-0204 | 1103228-03 | 0322803.D | 03/29/11 13:40 |
| 05-SS-022-0204 | 1103228-04 | 0322804.D | 03/29/11 14:04 |
| 05-SS-023-0204 | 1103228-05 | 0322805.D | 03/29/11 14:28 |
| 05-SS-025-0204 | 1103228-07 | 0322807.D | 03/29/11 15:16 |
| 05-SS-026-0204 | 1103228-08 | 0322808.D | 03/29/11 15:40 |
| 05-SS-013-0204 | 1103220-02RE1 | 0322002R.D | 03/29/11 16:03 |
| 05-SS-020-0204 | 1C29005-MS1 | 0322801M.D | 03/29/11 16:51 |
| 05-SS-020-0204 | 1C29005-MSD1 | 0322801S.D | 03/29/11 17:15 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0329TU1.D | Injection Date: | 03/29/11 |
| Instrument ID: | MS-VOA3 | Injection Time: | 07:39 |
| Sequence: | 1C08902 | Lab Sample ID: | 1C08902-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.3 | PASS |
| 75 | 30 - 60% of 95 | 59.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.86 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 86.2 | PASS |
| 175 | 5 - 9% of 174 | 7.86 | PASS |
| 176 | 95 - 101% of 174 | 97.6 | PASS |
| 177 | 5 - 9% of 176 | 7.77 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA3 | Calibration: | 1084002 |
| Lab File ID: | 0329CCV1.D | Calibration Date: | 03/24/11 16:28 |
| Sequence: | 1C08902 | Injection Date: | 03/29/11 |
| Lab Sample ID: | 1C08902-CCV1 | Injection Time: | 08:03 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 93.73 | 1.22848 | 1.151412 | | -6.3 | 20 |
| Ethylbenzene | A | 100.0 | 98.77 | 3.220098 | 3.180587 | | -1.2 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 102.3 | 0.9586598 | 0.9804255 | | 2.3 | 20 |
| Toluene | A | 100.0 | 101.2 | 1.544 | 1.562569 | | 1.2 | 20 |
| Xylenes (total) | A | 300.0 | 278.1 | 2.695919 | 2.551044 | | -5.4 | 20 |
| Bromofluorobenzene | A | 30.00 | 33.95 | 0.9368468 | 1.060106 | | 13.2 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.54 | 0.3028523 | 0.3083523 | | 1.8 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 28.06 | 4.935111E-02 | 4.615156E-02 | | -6.5 | 20 |
| Toluene-d8 | A | 30.00 | 30.46 | 1.998002 | 2.028906 | | 1.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C09034 | Instrument: | MS-VOA3 |
| Calibration: | 1084002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C09034-TUN1 | 0330TU1.D | 03/30/11 10:43 |
| Calibration Check | 1C09034-CCV1 | 0330CCV1.D | 03/30/11 11:20 |
| LCS | 1C30015-BS1 | 0330LS1.D | 03/30/11 12:03 |
| Blank | 1C30015-BLK1 | 0330BL1.D | 03/30/11 13:18 |
| 05-SS-024-0204 | 1103228-06RE1 | 0322806R.D | 03/30/11 13:41 |
| LCS Dup | 1C30015-BSD1 | 0330LSD1.D | 03/30/11 21:39 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0330TU1.D | Injection Date: | 03/30/11 |
| Instrument ID: | MS-VOA3 | Injection Time: | 10:43 |
| Sequence: | 1C09034 | Lab Sample ID: | 1C09034-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 18.8 | PASS |
| 75 | 30 - 60% of 95 | 57.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.41 | PASS |
| 173 | Less than 2% of 174 | 0.684 | PASS |
| 174 | 50 - 200% of 95 | 132 | PASS |
| 175 | 5 - 9% of 174 | 6.34 | PASS |
| 176 | 95 - 101% of 174 | 99.1 | PASS |
| 177 | 5 - 9% of 176 | 6.24 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA3 | Calibration: | 1084002 |
| Lab File ID: | 0330CCV1.D | Calibration Date: | 03/24/11 16:28 |
| Sequence: | 1C09034 | Injection Date: | 03/30/11 |
| Lab Sample ID: | 1C09034-CCV1 | Injection Time: | 11:20 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 84.73 | 1.22848 | 1.0409 | | -15.3 | 20 |
| Ethylbenzene | A | 100.0 | 87.12 | 3.220098 | 2.8052 | | -12.9 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 85.56 | 0.9586598 | 0.8202514 | | -14.4 | 20 |
| Toluene | A | 100.0 | 84.51 | 1.544 | 1.30479 | | -15.5 | 20 |
| Xylenes (total) | A | 300.0 | 248.5 | 2.695919 | 2.279892 | | -15.4 | 20 |
| Bromofluorobenzene | A | 30.00 | 33.89 | 0.9368468 | 1.058318 | | 13.0 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.26 | 0.3028523 | 0.3054953 | | 0.9 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 24.68 | 4.935111E-02 | 4.059386E-02 | | -17.7 | 20 |
| Toluene-d8 | A | 30.00 | 28.85 | 1.998002 | 1.92157 | | -3.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C29005 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-013-0204 | 1103220-02RE1 | 03/29/11 00:00 | 4.83 | 5.00 |
| 05-SS-013-0204-D | 1103220-04 | 03/29/11 00:00 | 4.80 | 5.00 |
| 05-SS-014-0204 | 1103220-05 | 03/29/11 00:00 | 4.55 | 5.00 |
| 05-SS-015-0204 | 1103220-07 | 03/29/11 00:00 | 4.32 | 5.00 |
| 05-SS-016-0204 | 1103220-08 | 03/29/11 00:00 | 4.59 | 5.00 |
| 05-SS-017-0204 | 1103220-09 | 03/29/11 00:00 | 4.39 | 5.00 |
| 05-SS-018-1520 | 1103220-10 | 03/29/11 00:00 | 4.10 | 5.00 |
| 05-SS-019-0204 | 1103220-11 | 03/29/11 00:00 | 5.12 | 5.00 |
| 05-SS-020-0204 | 1103228-01 | 03/29/11 00:00 | 4.19 | 5.00 |
| 05-SS-021-0204 | 1103228-03 | 03/29/11 00:00 | 4.95 | 5.00 |
| 05-SS-022-0204 | 1103228-04 | 03/29/11 00:00 | 4.63 | 5.00 |
| 05-SS-023-0204 | 1103228-05 | 03/29/11 00:00 | 4.79 | 5.00 |
| 05-SS-025-0204 | 1103228-07 | 03/29/11 00:00 | 4.62 | 5.00 |
| 05-SS-026-0204 | 1103228-08 | 03/29/11 00:00 | 4.38 | 5.00 |
| Blank | 1C29005-BLK1 | 03/29/11 00:00 | 5.00 | 5.00 |
| LCS | 1C29005-BS1 | 03/29/11 00:00 | 5.00 | 5.00 |
| 05-SS-020-0204 | 1C29005-MS1 | 03/29/11 00:00 | 4.63 | 5.00 |
| 05-SS-020-0204 | 1C29005-MSD1 | 03/29/11 00:00 | 4.63 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |

| | | | | | |
|---|---|---|---|---|---|
| Matrix: | | Laboratory ID: | 1C29005-BLK1 | File ID: | 0329BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/29/11 09:40 |
| Solids: | | Preparation: | 5035 | Dilution: | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Batch: | 1C29005 | Sequence: | 1C08902 | Calibration: | 1084002 | Instrument: | MS-VOA3 |

| CAS NO. | COMPOUND | CONC. (mg/Kg wet) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.02920 | 97.3 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03087 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03136 | 105 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03009 | 100 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1C29005 | Laboratory ID: | 1C29005-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.04686 | 93.7 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.04914 | 98.3 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04567 | 91.3 | 55 - 150 |
| Toluene | 0.05000 | 0.04971 | 99.4 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1376 | 91.7 | 75 - 125 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C29011 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| TRIP BLANK 9490 | 1103220-03 | 03/29/11 11:03 | 5.00 | 5.00 |
| 05-MW-014 | 1103220-06 | 03/29/11 11:03 | 5.00 | 5.00 |
| Trip Blank 9484 | 1103228-02 | 03/29/11 11:03 | 5.00 | 5.00 |
| Blank | 1C29011-BLK1 | 03/29/11 11:03 | 5.00 | 5.00 |
| LCS | 1C29011-BS1 | 03/29/11 11:03 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C29011-BLK1 | File ID: | 0329BL1E.D |
| Sampled: | | Prepared: | | Analyzed: | 03/29/11 21:31 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1C29011 Sequence: 1C08905 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.51 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.58 | 102 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.31 | 104 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.31 | 101 | 85 - 120 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C29011 | Laboratory ID: | 1C29011-BS1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acrolein | 250.1 | 229 | 91.4 | 10 - 200 |
| Acrylonitrile | 249.9 | 279 | 111 | 35 - 180 |
| Benzene | 50.00 | 54.2 | 108 | 80 - 120 |
| Bromodichloromethane | 50.00 | 52.2 | 104 | 75 - 120 |
| Bromoform | 50.00 | 55.9 | 112 | 70 - 130 |
| Bromomethane | 50.00 | 49.7 | 99.3 | 30 - 145 |
| Carbon tetrachloride | 50.00 | 49.6 | 99.1 | 65 - 140 |
| Chlorobenzene | 50.00 | 53.3 | 107 | 80 - 120 |
| Chloroethane | 50.00 | 57.9 | 116 | 60 - 135 |
| Chloroform | 50.00 | 48.6 | 97.2 | 65 - 135 |
| 2-Chloroethyl vinyl ether | 99.75 | 109 | 109 | 10 - 165 |
| **Chloromethane** | **50.00** | **63.0** | **126** | **40 - 125** |
| Dibromochloromethane | 50.00 | 56.7 | 113 | 60 - 135 |
| 1,2-Dibromoethane (EDB) | 50.00 | 53.7 | 107 | 80 - 120 |
| 1,1-Dichloroethane | 50.00 | 51.7 | 103 | 70 - 135 |
| 1,2-Dichloroethane | 50.00 | 48.2 | 96.4 | 70 - 130 |
| 1,1-Dichloroethene | 50.00 | 59.1 | 118 | 70 - 130 |
| cis-1,2-Dichloroethene | 50.00 | 52.2 | 104 | 70 - 125 |
| trans-1,2-Dichloroethene | 50.00 | 53.7 | 107 | 60 - 140 |
| 1,2-Dichloropropane | 50.00 | 48.8 | 97.7 | 75 - 125 |
| cis-1,3-Dichloropropene | 50.00 | 48.3 | 96.6 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.00 | 58.3 | 117 | 55 - 140 |
| Ethylbenzene | 50.00 | 56.7 | 113 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 50.3 | 101 | 65 - 125 |
| 1,1,2,2-Tetrachloroethane | 50.00 | 49.9 | 99.7 | 65 - 130 |
| Tetrachloroethene | 50.00 | 55.1 | 110 | 45 - 150 |
| Toluene | 50.00 | 55.9 | 112 | 75 - 120 |
| 1,2,4-Trichlorobenzene | 50.00 | 52.8 | 106 | 65 - 135 |
| 1,1,2-Trichloroethane | 50.00 | 54.1 | 108 | 75 - 125 |
| 1,1,1-Trichloroethane | 50.00 | 49.1 | 98.1 | 65 - 130 |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C29011 | Laboratory ID: | 1C29011-BS1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Trichloroethene | 50.00 | 52.2 | 104 | 70 - 125 |
| Vinyl chloride | 50.00 | 55.5 | 111 | 50 - 145 |
| Xylenes (total) | 150.0 | 166 | 111 | 75 - 130 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C30015 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-024-0204 | 1103228-06RE1 | 03/30/11 00:00 | 4.37 | 5.00 |
| Blank | 1C30015-BLK1 | 03/30/11 00:00 | 5.00 | 5.00 |
| LCS | 1C30015-BS1 | 03/30/11 00:00 | 5.00 | 5.00 |
| LCS Dup | 1C30015-BSD1 | 03/30/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C30015-BLK1 | File ID: | 0330BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/30/11 13:18 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1C30015 Sequence: 1C09034 Calibration: 1084002 Instrument: MS-VOA3

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03019 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03055 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03145 | 105 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03023 | 101 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1C30015 | Laboratory ID: | 1C30015-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.05052 | 101 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.05347 | 107 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04778 | 95.6 | 55 - 150 |
| Toluene | 0.05000 | 0.05530 | 111 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1517 | 101 | 75 - 125 |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCSD CONCENTRATION (mg/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 0.05000 | 0.04526 | 90.5 | 11.0 | 30 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.04809 | 96.2 | 10.6 | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04584 | 91.7 | 4.16 | 30 | 55 - 150 |
| Toluene | 0.05000 | 0.04342 | 86.8 | 24.1 | 30 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1416 | 94.4 | 6.89 | 30 | 75 - 125 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

**SW8260B**

**05-SS-020-0204**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1C29005

% Solids: 88.45

Source Sample Name: **1103228-01**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 0.06105 | ND | 0.05455 | 89.3 | | 75 - 125 |
| Ethylbenzene | 0.06105 | ND | 0.05805 | 95.1 | | 75 - 125 |
| Methyl t-Butyl Ether | 0.06105 | ND | 0.05558 | 91.0 | | 55 - 150 |
| Toluene | 0.06105 | ND | 0.05345 | 87.6 | | 70 - 125 |
| Xylenes (total) | 0.1832 | ND | 0.1683 | 91.9 | | 75 - 125 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Benzene | 0.06105 | 0.05458 | 89.4 | 0.0631 | | 30 | 75 - 125 |
| Ethylbenzene | 0.06105 | 0.05895 | 96.6 | 1.54 | | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 0.06105 | 0.05671 | 92.9 | 2.00 | | 30 | 55 - 150 |
| Toluene | 0.06105 | 0.05582 | 91.4 | 4.33 | | 30 | 70 - 125 |
| Xylenes (total) | 0.1832 | 0.1706 | 93.2 | 1.35 | | 30 | 75 - 125 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08902 | Instrument: | MS-VOA3 |
| | | Calibration: | 1084002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1C08902-CCV1 ) ug/L** | | | | Lab File ID: 0329CCV1.D | | Analyzed: 03/29/11 08:03 | | |
| Bromofluorobenzene | 30.00 | 113 | 80 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 102 | 80 - 120 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 93.5 | 80 - 120 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 102 | 80 - 120 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **LCS (1C29005-BS1 ) mg/Kg wet** | | | | Lab File ID: 0329LS1.D | | Analyzed: 03/29/11 08:27 | | |
| Bromofluorobenzene | 0.03000 | 99.9 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 101 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 97.7 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 103 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **Blank (1C29005-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0329BL1.D | | Analyzed: 03/29/11 09:40 | | |
| Bromofluorobenzene | 0.03000 | 97.3 | 85 - 120 | 11.995 | 12.001 | -0.0060 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 103 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 105 | 75 - 140 | 7.055 | 7.061 | -0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 100 | 85 - 115 | 9.324 | 9.33 | -0.0060 | +/-1.000 | |
| **05-SS-013-0204-D (1103220-04 ) mg/Kg dry** | | | | Lab File ID: 0322004.D | | Analyzed: 03/29/11 10:28 | | |
| Bromofluorobenzene | 0.03701 | 102 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03701 | 107 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03701 | 113 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03701 | 96.8 | 85 - 115 | 9.324 | 9.33 | -0.0060 | +/-1.000 | |
| **05-SS-014-0204 (1103220-05 ) mg/Kg dry** | | | | Lab File ID: 0322005.D | | Analyzed: 03/29/11 10:52 | | |
| Bromofluorobenzene | 0.03505 | 101 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03505 | 104 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03505 | 93.9 | 75 - 140 | 7.055 | 7.061 | -0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03505 | 98.7 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-015-0204 (1103220-07 ) mg/Kg dry** | | | | Lab File ID: 0322007.D | | Analyzed: 03/29/11 11:15 | | |
| Bromofluorobenzene | 0.04082 | 103 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.04082 | 108 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04082 | 103 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.04082 | 98.7 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-016-0204 (1103220-08 ) mg/Kg dry** | | | | Lab File ID: 0322008.D | | Analyzed: 03/29/11 11:39 | | |
| Bromofluorobenzene | 0.03508 | 101 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03508 | 107 | 80 - 125 | 6.544 | 6.55 | -0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03508 | 102 | 75 - 140 | 7.055 | 7.061 | -0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03508 | 100 | 85 - 115 | 9.324 | 9.33 | -0.0060 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 1C08902

SDG: CTOJM26_002
Project: NAS Pensacola CTO JM26 Saufley
Instrument: MS-VOA3
Calibration: 1084002

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-017-0204 (1103220-09 ) mg/Kg dry** | | | | Lab File ID: 0322009.D | | Analyzed: 03/29/11 12:05 | | |
| Bromofluorobenzene | 0.03669 | 99.6 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03669 | 108 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03669 | 101 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03669 | 96.9 | 85 - 115 | 9.324 | 9.33 | -0.0060 | +/-1.000 | |
| **05-SS-018-1520 (1103220-10 ) mg/Kg dry** | | | | Lab File ID: 0322010.D | | Analyzed: 03/29/11 12:29 | | |
| Bromofluorobenzene | 0.04581 | 99.8 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.04581 | 111 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04581 | 107 | 75 - 140 | 7.055 | 7.061 | -0.0060 | +/-1.000 | |
| Toluene-d8 | 0.04581 | 95.1 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-019-0204 (1103220-11 ) mg/Kg dry** | | | | Lab File ID: 0322011.D | | Analyzed: 03/29/11 12:53 | | |
| Bromofluorobenzene | 0.03088 | 101 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03088 | 108 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03088 | 95.7 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03088 | 98.2 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-020-0204 (1103228-01 ) mg/Kg dry** | | | | Lab File ID: 0322801.D | | Analyzed: 03/29/11 13:17 | | |
| Bromofluorobenzene | 0.04048 | 100 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.04048 | 107 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04048 | 96.0 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.04048 | 98.1 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-021-0204 (1103228-03 ) mg/Kg dry** | | | | Lab File ID: 0322803.D | | Analyzed: 03/29/11 13:40 | | |
| Bromofluorobenzene | 0.03269 | 99.9 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03269 | 107 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03269 | 95.5 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03269 | 98.6 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-022-0204 (1103228-04 ) mg/Kg dry** | | | | Lab File ID: 0322804.D | | Analyzed: 03/29/11 14:04 | | |
| Bromofluorobenzene | 0.03889 | 98.8 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03889 | 105 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03889 | 96.1 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03889 | 95.5 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-023-0204 (1103228-05 ) mg/Kg dry** | | | | Lab File ID: 0322805.D | | Analyzed: 03/29/11 14:28 | | |
| Bromofluorobenzene | 0.03493 | 99.9 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03493 | 110 | 80 - 125 | 6.55 | 6.55 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03493 | 94.8 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03493 | 95.1 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08902 | Instrument: | MS-VOA3 |
| | | Calibration: | 1084002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-025-0204 (1103228-07 ) mg/Kg dry** | | | | Lab File ID: 0322807.D | | Analyzed: 03/29/11 15:16 | | |
| Bromofluorobenzene | 0.03519 | 103 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03519 | 106 | 80 - 125 | 6.556 | 6.55 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03519 | 101 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03519 | 96.4 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-026-0204 (1103228-08 ) mg/Kg dry** | | | | Lab File ID: 0322808.D | | Analyzed: 03/29/11 15:40 | | |
| Bromofluorobenzene | 0.03739 | 102 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03739 | 108 | 80 - 125 | 6.556 | 6.55 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03739 | 95.4 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03739 | 94.9 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **05-SS-013-0204 (1103220-02RE1 ) mg/Kg dry** | | | | Lab File ID: 0322002R.D | | Analyzed: 03/29/11 16:03 | | |
| Bromofluorobenzene | 0.03337 | 98.4 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03337 | 107 | 80 - 125 | 6.556 | 6.55 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03337 | 95.4 | 75 - 140 | 7.067 | 7.061 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03337 | 96.7 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **Matrix Spike (1C29005-MS1 ) mg/Kg dry** | | | | Lab File ID: 0322801M.D | | Analyzed: 03/29/11 16:51 | | |
| Bromofluorobenzene | 0.03663 | 107 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03663 | 107 | 80 - 125 | 6.556 | 6.55 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03663 | 84.4 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03663 | 95.6 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |
| **Matrix Spike Dup (1C29005-MSD1 ) mg/Kg dry** | | | | Lab File ID: 0322801S.D | | Analyzed: 03/29/11 17:15 | | |
| Bromofluorobenzene | 0.03663 | 109 | 85 - 120 | 12.001 | 12.001 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03663 | 106 | 80 - 125 | 6.556 | 6.55 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03663 | 96.9 | 75 - 140 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03663 | 100 | 85 - 115 | 9.33 | 9.33 | 0.0000 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08905 | Instrument: | MS-VOA5 |
| | | Calibration: | 1078001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1C08905-CCV1 ) ug/L** | | | | Lab File ID: 0329CC1E.D | | Analyzed: 03/29/11 19:33 | | |
| Bromofluorobenzene | 30.00 | 96.1 | 80 - 120 | 17.657 | 17.657 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 96.8 | 80 - 120 | 11.203 | 11.203 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 96.6 | 80 - 120 | 12.011 | 12.011 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 92.4 | 80 - 120 | 15.332 | 15.332 | 0.0000 | +/-1.000 | |
| **LCS (1C29011-BS1 ) ug/L** | | | | Lab File ID: 0329LS1E.D | | Analyzed: 03/29/11 20:03 | | |
| Bromofluorobenzene | 30.00 | 104 | 75 - 120 | 17.653 | 17.657 | -0.0040 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 95.1 | 85 - 115 | 11.199 | 11.203 | -0.0040 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 94.5 | 70 - 120 | 12.007 | 12.011 | -0.0040 | +/-1.000 | |
| Toluene-d8 | 30.00 | 102 | 85 - 120 | 15.328 | 15.332 | -0.0040 | +/-1.000 | |
| **Blank (1C29011-BLK1 ) ug/L** | | | | Lab File ID: 0329BL1E.D | | Analyzed: 03/29/11 21:31 | | |
| Bromofluorobenzene | 30.00 | 102 | 75 - 120 | 17.652 | 17.657 | -0.0050 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 102 | 85 - 115 | 11.208 | 11.203 | 0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 104 | 70 - 120 | 12.016 | 12.011 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 30.00 | 101 | 85 - 120 | 15.327 | 15.332 | -0.0050 | +/-1.000 | |
| **TRIP BLANK 9490 (1103220-03 ) ug/L** | | | | Lab File ID: 0322003.D | | Analyzed: 03/29/11 22:32 | | |
| Bromofluorobenzene | 30.00 | 105 | 75 - 120 | 17.648 | 17.657 | -0.0090 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 104 | 85 - 115 | 11.203 | 11.203 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 104 | 70 - 120 | 12.011 | 12.011 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 102 | 85 - 120 | 15.332 | 15.332 | 0.0000 | +/-1.000 | |
| **Trip Blank 9484 (1103228-02 ) ug/L** | | | | Lab File ID: 0322802.D | | Analyzed: 03/29/11 23:02 | | |
| Bromofluorobenzene | 30.00 | 105 | 75 - 120 | 17.651 | 17.657 | -0.0060 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 103 | 85 - 115 | 11.216 | 11.203 | 0.0130 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 104 | 70 - 120 | 12.014 | 12.011 | 0.0030 | +/-1.000 | |
| Toluene-d8 | 30.00 | 100 | 85 - 120 | 15.335 | 15.332 | 0.0030 | +/-1.000 | |
| **05-MW-014 (1103220-06 ) ug/L** | | | | Lab File ID: 0322006.D | | Analyzed: 03/30/11 01:02 | | |
| Bromofluorobenzene | 30.00 | 106 | 75 - 120 | 17.658 | 17.657 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 103 | 85 - 115 | 11.213 | 11.203 | 0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 106 | 70 - 120 | 12.011 | 12.011 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 105 | 85 - 120 | 15.332 | 15.332 | 0.0000 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C09034 | Instrument: | MS-VOA3 |
| | | Calibration: | 1084002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1C09034-CCV1 ) ug/L** | | | | Lab File ID: 0330CCV1.D | | Analyzed: 03/30/11 11:20 | | |
| Bromofluorobenzene | 30.00 | 113 | 80 - 120 | 12.007 | 12.007 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 101 | 80 - 120 | 6.556 | 6.556 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 82.3 | 80 - 120 | 7.061 | 7.061 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 96.2 | 80 - 120 | 9.336 | 9.336 | 0.0000 | +/-1.000 | |
| **LCS (1C30015-BS1 ) mg/Kg wet** | | | | Lab File ID: 0330LS1.D | | Analyzed: 03/30/11 12:03 | | |
| Bromofluorobenzene | 0.03000 | 102 | 85 - 120 | 12.007 | 12.007 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 99.3 | 80 - 125 | 6.556 | 6.556 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 98.4 | 75 - 140 | 7.067 | 7.061 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 105 | 85 - 115 | 9.336 | 9.336 | 0.0000 | +/-1.000 | |
| **Blank (1C30015-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0330BL1.D | | Analyzed: 03/30/11 13:18 | | |
| Bromofluorobenzene | 0.03000 | 101 | 85 - 120 | 12.007 | 12.007 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 102 | 80 - 125 | 6.556 | 6.556 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 105 | 75 - 140 | 7.067 | 7.061 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 101 | 85 - 115 | 9.336 | 9.336 | 0.0000 | +/-1.000 | |
| **05-SS-024-0204 (1103228-06RE1 ) mg/Kg dry** | | | | Lab File ID: 0322806R.D | | Analyzed: 03/30/11 13:41 | | |
| Bromofluorobenzene | 0.03694 | 98.8 | 85 - 120 | 12.007 | 12.007 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03694 | 101 | 80 - 125 | 6.556 | 6.556 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03694 | 97.8 | 75 - 140 | 7.067 | 7.061 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03694 | 101 | 85 - 115 | 9.336 | 9.336 | 0.0000 | +/-1.000 | |
| **LCS Dup (1C30015-BSD1 ) mg/Kg wet** | | | | Lab File ID: 0330LSD1.D | | Analyzed: 03/30/11 21:39 | | |
| Bromofluorobenzene | 0.03000 | 108 | 85 - 120 | 12.007 | 12.007 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 102 | 80 - 125 | 6.556 | 6.556 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 89.6 | 75 - 140 | 7.067 | 7.061 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 94.9 | 85 - 115 | 9.336 | 9.336 | 0.0000 | +/-1.000 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 1C08902

SDG: CTOJM26_002
Project: NAS Pensacola CTO JM26 Saufley
Instrument: MS-VOA3
Calibration: 1084002

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1C08902-CCV1 )** | | | Lab File ID: 0329CCV1.D | | | Analyzed: 03/29/11 08:03 | | | |
| Fluorobenzene | 832713 | 7.596 | 742142 | 7.602 | 112 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 440504 | 10.784 | 383139 | 10.784 | 115 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 614754 | 13.217 | 382695 | 13.224 | 161 | 50 - 200 | -0.0070 | +/-0.50 | |
| **LCS (1C29005-BS1 )** | | | Lab File ID: 0329LS1.D | | | Analyzed: 03/29/11 08:27 | | | |
| Fluorobenzene | 1023616 | 7.596 | 832713 | 7.596 | 123 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 516040 | 10.784 | 440504 | 10.784 | 117 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 644420 | 13.218 | 614754 | 13.217 | 105 | 50 - 200 | 0.0010 | +/-0.50 | |
| **Blank (1C29005-BLK1 )** | | | Lab File ID: 0329BL1.D | | | Analyzed: 03/29/11 09:40 | | | |
| Fluorobenzene | 921298 | 7.596 | 832713 | 7.596 | 111 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 471298 | 10.784 | 440504 | 10.784 | 107 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 565812 | 13.218 | 614754 | 13.217 | 92 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-013-0204-D (1103220-04 )** | | | Lab File ID: 0322004.D | | | Analyzed: 03/29/11 10:28 | | | |
| Fluorobenzene | 449987 | 7.596 | 832713 | 7.596 | 54 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 239926 | 10.784 | 440504 | 10.784 | 54 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 289569 | 13.218 | 614754 | 13.217 | 47 | 50 - 200 | 0.0010 | +/-0.50 | * |
| **05-SS-014-0204 (1103220-05 )** | | | Lab File ID: 0322005.D | | | Analyzed: 03/29/11 10:52 | | | |
| Fluorobenzene | 732813 | 7.596 | 832713 | 7.596 | 88 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 381243 | 10.784 | 440504 | 10.784 | 87 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 445094 | 13.217 | 614754 | 13.217 | 72 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-015-0204 (1103220-07 )** | | | Lab File ID: 0322007.D | | | Analyzed: 03/29/11 11:15 | | | |
| Fluorobenzene | 712671 | 7.596 | 832713 | 7.596 | 86 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 372464 | 10.784 | 440504 | 10.784 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 457013 | 13.218 | 614754 | 13.217 | 74 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-016-0204 (1103220-08 )** | | | Lab File ID: 0322008.D | | | Analyzed: 03/29/11 11:39 | | | |
| Fluorobenzene | 709268 | 7.596 | 832713 | 7.596 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 363683 | 10.784 | 440504 | 10.784 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 444041 | 13.218 | 614754 | 13.217 | 72 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-017-0204 (1103220-09 )** | | | Lab File ID: 0322009.D | | | Analyzed: 03/29/11 12:05 | | | |
| Fluorobenzene | 738016 | 7.596 | 832713 | 7.596 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 390534 | 10.784 | 440504 | 10.784 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 466659 | 13.217 | 614754 | 13.217 | 76 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-018-1520 (1103220-10 )** | | | Lab File ID: 0322010.D | | | Analyzed: 03/29/11 12:29 | | | |
| Fluorobenzene | 686373 | 7.596 | 832713 | 7.596 | 82 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 373990 | 10.784 | 440504 | 10.784 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 441660 | 13.218 | 614754 | 13.217 | 72 | 50 - 200 | 0.0010 | +/-0.50 | |

NA Limited

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08902 | Instrument: | MS-VOA3 |
| | | Calibration: | 1084002 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-019-0204 (1103220-11 )** | | | Lab File ID: 0322011.D | | | Analyzed: 03/29/11 12:53 | | | |
| Fluorobenzene | 660831 | 7.596 | 832713 | 7.596 | 79 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 344988 | 10.784 | 440504 | 10.784 | 78 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 412903 | 13.218 | 614754 | 13.217 | 67 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-020-0204 (1103228-01 )** | | | Lab File ID: 0322801.D | | | Analyzed: 03/29/11 13:17 | | | |
| Fluorobenzene | 667706 | 7.596 | 832713 | 7.596 | 80 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 352471 | 10.784 | 440504 | 10.784 | 80 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 416854 | 13.218 | 614754 | 13.217 | 68 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-021-0204 (1103228-03 )** | | | Lab File ID: 0322803.D | | | Analyzed: 03/29/11 13:40 | | | |
| Fluorobenzene | 638178 | 7.602 | 832713 | 7.596 | 77 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 329821 | 10.784 | 440504 | 10.784 | 75 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 386516 | 13.224 | 614754 | 13.217 | 63 | 50 - 200 | 0.0070 | +/-0.50 | |
| **05-SS-022-0204 (1103228-04 )** | | | Lab File ID: 0322804.D | | | Analyzed: 03/29/11 14:04 | | | |
| Fluorobenzene | 678545 | 7.602 | 832713 | 7.596 | 81 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 367302 | 10.784 | 440504 | 10.784 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 438967 | 13.224 | 614754 | 13.217 | 71 | 50 - 200 | 0.0070 | +/-0.50 | |
| **05-SS-023-0204 (1103228-05 )** | | | Lab File ID: 0322805.D | | | Analyzed: 03/29/11 14:28 | | | |
| Fluorobenzene | 619040 | 7.603 | 832713 | 7.596 | 74 | 50 - 200 | 0.0070 | +/-0.50 | |
| Chlorobenzene-d5 | 327137 | 10.784 | 440504 | 10.784 | 74 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 379315 | 13.224 | 614754 | 13.217 | 62 | 50 - 200 | 0.0070 | +/-0.50 | |
| **05-SS-025-0204 (1103228-07 )** | | | Lab File ID: 0322807.D | | | Analyzed: 03/29/11 15:16 | | | |
| Fluorobenzene | 632548 | 7.602 | 832713 | 7.596 | 76 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 325827 | 10.79 | 440504 | 10.784 | 74 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 385529 | 13.224 | 614754 | 13.217 | 63 | 50 - 200 | 0.0070 | +/-0.50 | |
| **05-SS-026-0204 (1103228-08 )** | | | Lab File ID: 0322808.D | | | Analyzed: 03/29/11 15:40 | | | |
| Fluorobenzene | 626220 | 7.602 | 832713 | 7.596 | 75 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 345704 | 10.784 | 440504 | 10.784 | 78 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 410572 | 13.224 | 614754 | 13.217 | 67 | 50 - 200 | 0.0070 | +/-0.50 | |
| **05-SS-013-0204 (1103220-02RE1 )** | | | Lab File ID: 0322002R.D | | | Analyzed: 03/29/11 16:03 | | | |
| Fluorobenzene | 578608 | 7.602 | 832713 | 7.596 | 69 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 307331 | 10.784 | 440504 | 10.784 | 70 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 359243 | 13.224 | 614754 | 13.217 | 58 | 50 - 200 | 0.0070 | +/-0.50 | |
| **Matrix Spike (1C29005-MS1 )** | | | Lab File ID: 0322801M.D | | | Analyzed: 03/29/11 16:51 | | | |
| Fluorobenzene | 596233 | 7.602 | 832713 | 7.596 | 72 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 332102 | 10.79 | 440504 | 10.784 | 75 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 446330 | 13.224 | 614754 | 13.217 | 73 | 50 - 200 | 0.0070 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08902 | Instrument: | MS-VOA3 |
| | | Calibration: | 1084002 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix Spike Dup (1C29005-MSD1 )** | | | Lab File ID: 0322801S.D | | | Analyzed: 03/29/11 17:15 | | | |
| Fluorobenzene | 664512 | 7.602 | 832713 | 7.596 | 80 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 356503 | 10.79 | 440504 | 10.784 | 81 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 481603 | 13.224 | 614754 | 13.217 | 78 | 50 - 200 | 0.0070 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08905 | Instrument: | MS-VOA5 |
| | | Calibration: | 1078001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1C08905-CCV1 )** | | | Lab File ID: 0329CC1E.D | | | Analyzed: 03/29/11 19:33 | | | |
| Fluorobenzene | 1224279 | 13.203 | 1293879 | 13.193 | 95 | 50 - 200 | 0.0100 | +/-0.50 | |
| Chlorobenzene-d5 | 725013 | 16.672 | 767535 | 16.671 | 94 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 622713 | 18.712 | 652164 | 18.701 | 95 | 50 - 200 | 0.0110 | +/-0.50 | |
| **LCS (1C29011-BS1 )** | | | Lab File ID: 0329LS1E.D | | | Analyzed: 03/29/11 20:03 | | | |
| Fluorobenzene | 1348397 | 13.2 | 1224279 | 13.203 | 110 | 50 - 200 | -0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 695023 | 16.668 | 725013 | 16.672 | 96 | 50 - 200 | -0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 652236 | 18.698 | 622713 | 18.712 | 105 | 50 - 200 | -0.0140 | +/-0.50 | |
| **Blank (1C29011-BLK1 )** | | | Lab File ID: 0329BL1E.D | | | Analyzed: 03/29/11 21:31 | | | |
| Fluorobenzene | 1054196 | 13.198 | 1224279 | 13.203 | 86 | 50 - 200 | -0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 556107 | 16.667 | 725013 | 16.672 | 77 | 50 - 200 | -0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 482710 | 18.697 | 622713 | 18.712 | 78 | 50 - 200 | -0.0150 | +/-0.50 | |
| **TRIP BLANK 9490 (1103220-03 )** | | | Lab File ID: 0322003.D | | | Analyzed: 03/29/11 22:32 | | | |
| Fluorobenzene | 968378 | 13.194 | 1224279 | 13.203 | 79 | 50 - 200 | -0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 499011 | 16.672 | 725013 | 16.672 | 69 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 447869 | 18.702 | 622713 | 18.712 | 72 | 50 - 200 | -0.0100 | +/-0.50 | |
| **Trip Blank 9484 (1103228-02 )** | | | Lab File ID: 0322802.D | | | Analyzed: 03/29/11 23:02 | | | |
| Fluorobenzene | 961796 | 13.197 | 1224279 | 13.203 | 79 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 497006 | 16.675 | 725013 | 16.672 | 69 | 50 - 200 | 0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 441290 | 18.705 | 622713 | 18.712 | 71 | 50 - 200 | -0.0070 | +/-0.50 | |
| **05-MW-014 (1103220-06 )** | | | Lab File ID: 0322006.D | | | Analyzed: 03/30/11 01:02 | | | |
| Fluorobenzene | 966174 | 13.204 | 1224279 | 13.203 | 79 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 503942 | 16.672 | 725013 | 16.672 | 70 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 466476 | 18.702 | 622713 | 18.712 | 75 | 50 - 200 | -0.0100 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C09034 | Instrument: | MS-VOA3 |
| | | Calibration: | 1084002 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1C09034-CCV1 )** | | | Lab File ID: 0330CCV1.D | | | Analyzed: 03/30/11 11:20 | | | |
| Fluorobenzene | 722597 | 7.602 | 742142 | 7.602 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 422886 | 10.79 | 383139 | 10.784 | 110 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 590175 | 13.224 | 382695 | 13.224 | 154 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS (1C30015-BS1 )** | | | Lab File ID: 0330LS1.D | | | Analyzed: 03/30/11 12:03 | | | |
| Fluorobenzene | 960755 | 7.602 | 722597 | 7.602 | 133 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 478147 | 10.79 | 422886 | 10.79 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 600572 | 13.224 | 590175 | 13.224 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1C30015-BLK1 )** | | | Lab File ID: 0330BL1.D | | | Analyzed: 03/30/11 13:18 | | | |
| Fluorobenzene | 1026038 | 7.602 | 722597 | 7.602 | 142 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 513487 | 10.79 | 422886 | 10.79 | 121 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 618392 | 13.224 | 590175 | 13.224 | 105 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-024-0204 (1103228-06RE1 )** | | | Lab File ID: 0322806R.D | | | Analyzed: 03/30/11 13:41 | | | |
| Fluorobenzene | 989836 | 7.609 | 722597 | 7.602 | 137 | 50 - 200 | 0.0070 | +/-0.50 | |
| Chlorobenzene-d5 | 497217 | 10.79 | 422886 | 10.79 | 118 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 591425 | 13.224 | 590175 | 13.224 | 100 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS Dup (1C30015-BSD1 )** | | | Lab File ID: 0330LSD1.D | | | Analyzed: 03/30/11 21:39 | | | |
| Fluorobenzene | 631877 | 7.608 | 722597 | 7.602 | 87 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 359767 | 10.79 | 422886 | 10.79 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 496126 | 13.224 | 590175 | 13.224 | 84 | 50 - 200 | 0.0000 | +/-0.50 | |

# Data for SW8011 Forms

1,2-Dibromoethane

# HOLDING TIME SUMMARY
## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-MW-014 | 03/24/11 09:15 | 03/25/11 08:30 | 04/06/11 13:34 | N/A | 14.00 | 04/06/11 23:22 | 13.63 | 14.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |
| Cal Standard | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| Initial Cal Check | 0L34409-ICV1 | 010R0101.D | 12/09/10 17:04 |
| Initial Cal Check | 0L34409-ICV1 | 010F0101.D | 12/09/10 17:04 |

# INITIAL CALIBRATION STANDARDS

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 17489.79 | 18.96825 | 1.543 | 1.749237E-02 | | 0.9996372 | CCC () | * |
| 1,2-Dibromoethane [2C] | 37183.36 | 15.05167 | 0.583 | 2.248094E-02 | | 0.9995717 | CCC () | * |
| 1,2-Dibromo-3-chloropropane | 35650.07 | 32.01128 | 6.973 | 2.748517E-02 | | 0.9987968 | CCC () | * |
| 1,2-Dibromo-3-chloropropane [2C] | 100449.9 | 35.64558 | 4.139286 | 5.910871E-02 | | 0.9986728 | CCC () | * |

# INITIAL CALIBRATION DATA

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,2-Dibromoethane | 1 | 14540 | 0.5 | 15516 | 0.4 | 15402.5 | 0.2 | 16590 | 0.15 | 15980 | 0.1 | ~~17600~~ |
| 1,2-Dibromoethane [2C] | 1 | 29076 | 0.5 | 33560 | 0.4 | 33402.5 | 0.2 | 38785 | 0.15 | 37866.67 | 0.1 | ~~42050~~ |
| 1,2-Dibromo-3-chloropropane | 1 | 24442 | 0.5 | 28986 | 0.4 | 28852.5 | 0.2 | 31650 | 0.15 | 31693.33 | 0.1 | ~~45080~~ |
| 1,2-Dibromo-3-chloropropane [2C] | 1 | 69695 | 0.5 | 78930 | 0.4 | 76647.5 | 0.2 | 85730 | 0.15 | 88033.34 | 0.1 | ~~105450~~ |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,2-Dibromoethane | 0.05 | 23100 | 0.03 | 21300 | | | | | | | | |
| 1,2-Dibromoethane [2C] | 0.05 | 45260 | 0.03 | 42333.33 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 0.05 | 52760 | 0.03 | 51166.67 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane [2C] | 0.05 | 155180 | 0.03 | 148933.3 | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 010F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 0L34409 | Injection Date: | 12/09/10 |
| Lab Sample ID: | 0L34409-ICV1 | Injection Time: | 17:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4746 | 17489.79 | 14620 | | -5.1 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4584 | 37183.36 | 30824 | | -8.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09807 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D09807-CCV1 | 001R0201.D | 04/06/11 20:15 |
| Calibration Check | 1D09807-CCV1 | 001F0201.D | 04/06/11 20:15 |
| LCS | 1D06013-BS1 | 003R0201.D | 04/06/11 20:53 |
| LCS | 1D06013-BS1 | 003F0201.D | 04/06/11 20:53 |
| Blank | 1D06013-BLK1 | 004R0201.D | 04/06/11 21:14 |
| 05-MW-014 | 1103220-06 | 010R0201.D | 04/06/11 23:22 |
| Calibration Check | 1D09807-CCV2 | 016R0201.D | 04/07/11 01:30 |
| Calibration Check | 1D09807-CCV2 | 016F0201.D | 04/07/11 01:30 |

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 001F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/06/11 |
| Lab Sample ID: | 1D09807-CCV1 | Injection Time: | 20:15 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5866 | 17489.79 | 17802 | | 17.3 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5525 | 37183.36 | 36050 | | 10.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 016F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09807-CCV2 | Injection Time: | 01:30 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5615 | 17489.79 | 17096 | | 12.3 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5900 | 37183.36 | 38070 | | 18.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06013 Batch Matrix: Water Preparation: EDB

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-014 | 1103220-06 | 04/06/11 13:34 | 44.10 | 35.00 |
| Blank | 1D06013-BLK1 | 04/06/11 13:34 | 35.00 | 35.00 |
| LCS | 1D06013-BS1 | 04/06/11 13:34 | 35.00 | 35.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D06013-BLK1 | File ID: | 004R0201.D |
| Sampled: | | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 21:14 |
| Solids: | | Preparation: | EDB | Dilution: | |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# LCS / LCS DUPLICATE RECOVERY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D06013 | Laboratory ID: | 1D06013-BS1 |
| Preparation: | EDB | Initial/Final: | 35 mL / 35 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.5000 | 0.4852 | 97.0 | 70 - 130 |
| 1,2-Dibromoethane [2C] | 0.5000 | 0.5215 | 104 | 70 - 130 |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_002

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** GL-ECD2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0100 | 0.0300 | ug/L | SW8011 |

# Data for SW8270C (PAH) Forms

# HOLDING TIME SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| EQUIP BLANK 01 | 03/23/11 07:20 | 03/25/11 08:30 | 03/29/11 13:24 | 6.29 | 7.00 | 04/04/11 16:32 | 6.13 | 40.00 | |
| 05-SS-013-0204 | 03/24/11 07:55 | 03/25/11 08:30 | 03/30/11 18:45 | 6.49 | 14.00 | 03/31/11 19:38 | 1.04 | 40.00 | |
| 05-SS-013-0204-D | 03/24/11 07:55 | 03/25/11 08:30 | 03/30/11 18:45 | 6.49 | 14.00 | 03/31/11 20:05 | 1.06 | 40.00 | |
| 05-SS-014-0204 | 03/24/11 08:35 | 03/25/11 08:30 | 03/30/11 18:45 | 6.47 | 14.00 | 03/31/11 20:32 | 1.07 | 40.00 | |
| 05-MW-014 | 03/24/11 09:15 | 03/25/11 08:30 | 03/29/11 13:24 | 5.21 | 7.00 | 04/04/11 16:59 | 6.15 | 40.00 | |
| 05-SS-015-0204 | 03/24/11 10:05 | 03/25/11 08:30 | 03/30/11 18:45 | 6.40 | 14.00 | 03/31/11 23:17 | 1.19 | 40.00 | |
| 05-SS-016-0204 | 03/24/11 10:45 | 03/25/11 08:30 | 03/30/11 18:45 | 6.38 | 14.00 | 03/31/11 20:59 | 1.09 | 40.00 | |
| 05-SS-017-0204 | 03/24/11 11:20 | 03/25/11 08:30 | 03/30/11 18:45 | 6.35 | 14.00 | 03/31/11 23:45 | 1.21 | 40.00 | |
| 05-SS-018-1520 | 03/24/11 12:35 | 03/25/11 08:30 | 03/30/11 18:45 | 6.30 | 14.00 | 03/31/11 21:27 | 1.11 | 40.00 | |
| 05-SS-019-0204 | 03/24/11 13:30 | 03/25/11 08:30 | 03/30/11 18:45 | 6.26 | 14.00 | 03/31/11 21:54 | 1.13 | 40.00 | |
| 05-SS-020-0204 | 03/25/11 11:05 | 03/26/11 11:30 | 04/04/11 14:55 | 10.20 | 14.00 | 04/05/11 13:23 | 0.94 | 40.00 | |
| 05-SS-021-0204 | 03/25/11 11:57 | 03/26/11 11:30 | 04/04/11 14:55 | 10.17 | 14.00 | 04/05/11 13:51 | 0.96 | 40.00 | |
| 05-SS-022-0204 | 03/25/11 13:55 | 03/26/11 11:30 | 04/04/11 14:55 | 10.08 | 14.00 | 04/05/11 14:19 | 0.97 | 40.00 | |
| 05-SS-023-0204 | 03/25/11 14:40 | 03/26/11 11:30 | 04/04/11 14:55 | 10.05 | 14.00 | 04/05/11 14:47 | 0.99 | 40.00 | |
| 05-SS-024-0204 | 03/25/11 15:15 | 03/26/11 11:30 | 04/04/11 14:55 | 10.03 | 14.00 | 04/05/11 15:16 | 1.01 | 40.00 | |
| 05-SS-025-0204 | 03/25/11 15:45 | 03/26/11 11:30 | 04/04/11 14:55 | 10.01 | 14.00 | 04/05/11 15:44 | 1.03 | 40.00 | |
| 05-SS-026-0204 | 03/25/11 16:20 | 03/26/11 11:30 | 04/04/11 14:55 | 9.98 | 14.00 | 04/05/11 16:12 | 1.05 | 40.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C06115 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C06115-TUN1 | SEQ-TUN1.D | 02/28/11 19:40 |
| Cal Standard | 1C06115-CAL1 | SEQ-CAL1.D | 02/28/11 19:58 |
| Cal Standard | 1C06115-CAL2 | SEQ-CAL2.D | 02/28/11 20:24 |
| Cal Standard | 1C06115-CAL3 | SEQ-CAL3.D | 02/28/11 20:50 |
| Cal Standard | 1C06115-CAL4 | SEQ-CAL4.D | 02/28/11 21:16 |
| Cal Standard | 1C06115-CAL5 | SEQ-CAL5.D | 02/28/11 21:42 |
| Cal Standard | 1C06115-CAL6 | SEQ-CAL6.D | 02/28/11 22:08 |
| Cal Standard | 1C06115-CAL7 | SEQ-CAL7.D | 02/28/11 22:35 |
| Cal Standard | 1C06115-CAL8 | SEQ-CAL8.D | 02/28/11 23:01 |
| MS Tune | 1C06115-TUN2 | SEQ-TUN1.D | 03/01/11 12:01 |
| Initial Cal Check | 1C06115-ICV1 | SEQ-ICV1.D | 03/01/11 12:19 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 02/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 19:40 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 54 | PASS |
| 68 | Less than 2% of 69 | 1.39 | PASS |
| 69 | Less than 200% of 198 | 52.7 | PASS |
| 70 | Less than 2% of 69 | 0.407 | PASS |
| 127 | 40 - 60% of 198 | 57.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 25.3 | PASS |
| 365 | 1 - 200% of 198 | 3.37 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 20.3 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 | | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | | |
| Calibration: | 1061004 | Instrument: | MS-BNA4 | | |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 | 2/28/11 23:01 | |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 | | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | | |
| Calibration: | 1061004 | Instrument: | MS-BNA4 | | |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 | 2/28/11 23:01 | |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |

# INITIAL CALIBRATION DATA
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 0.2 | 0.8535207 | 0.5 | 0.873421 | 1 | 0.9064357 | 5 | 0.8395738 | 10 | 0.784535 | 20 | 0.8168652 |
| Acenaphthylene | 0.2 | 1.382044 | 0.5 | 1.218477 | 1 | 1.435272 | 5 | 1.311268 | 10 | 1.208637 | 20 | 1.217291 |
| Anthracene | 0.2 | 1.058534 | 0.5 | 1.093939 | 1 | 1.125915 | 5 | 1.133941 | 10 | 1.170225 | 20 | 1.132615 |
| Benzo(a)anthracene | 0.2 | 0.6476147 | 0.5 | 0.7623581 | 1 | 0.8156699 | 5 | 0.8984042 | 10 | 1.054533 | 20 | 0.8423353 |
| Benzo(a)pyrene | 0.2 | 1.02565 | 0.5 | 1.014554 | 1 | 1.005352 | 5 | 1.046623 | 10 | 1.13987 | 20 | 1.083464 |
| Benzo(b)fluoranthene | 0.2 | 1.352174 | 0.5 | 1.123357 | 1 | 1.241503 | 5 | 1.234178 | 10 | 1.470413 | 20 | 1.430442 |
| Benzo(g,h,i)perylene | 0.2 | 1.25079 | 0.5 | 0.9738602 | 1 | 0.9538002 | 5 | 0.8937802 | 10 | 0.8523731 | 20 | 0.9100527 |
| Benzo(k)fluoranthene | 0.2 | 1.25079 | 0.5 | 1.187413 | 1 | 1.228864 | 5 | 1.399423 | 10 | 1.350928 | 20 | 1.327367 |
| Chrysene | 0.2 | 0.7374538 | 0.5 | 0.8493865 | 1 | 0.842695 | 5 | 0.9126712 | 10 | 1.060452 | 20 | 0.7892754 |
| Dibenz(a,h)anthracene | 0.2 | 0.9186101 | 0.5 | 0.772847 | 1 | 0.7332764 | 5 | 0.807053 | 10 | 0.8074299 | 20 | 0.8601228 |
| Fluoranthene | 0.2 | 1.051742 | 0.5 | 1.162418 | 1 | 1.179913 | 5 | 1.225501 | 10 | 1.272376 | 20 | 1.210129 |
| Fluorene | 0.2 | 0.7020536 | 0.5 | 0.7674959 | 1 | 0.8242432 | 5 | 0.8055957 | 10 | 0.8027371 | 20 | 0.8141917 |
| 2-Fluorobiphenyl | 0.2 | 0.9678027 | 0.5 | 0.9267382 | 1 | 0.971158 | 5 | 0.9172978 | 10 | 0.8347461 | 20 | 0.8721172 |
| Indeno(1,2,3-cd)pyrene | 0.2 | 1.19648 | 0.5 | 1.0475 | 1 | 1.041161 | 5 | 1.035051 | 10 | 1.034813 | 20 | 1.078813 |
| 1-Methylnaphthalene | 0.2 | 1.063294 | 0.5 | 0.9409067 | 1 | 0.9548364 | 5 | 0.8620632 | 10 | 0.8000648 | 20 | 0.8432121 |
| 2-Methylnaphthalene | 0.2 | 1.091703 | 0.5 | 0.9503314 | 1 | 0.953009 | 5 | 0.8485033 | 10 | 0.790738 | 20 | 0.8347751 |
| Naphthalene | 0.2 | 1.685474 | 0.5 | 1.472423 | 1 | 1.51616 | 5 | 1.341546 | 10 | 1.240043 | 20 | 1.318205 |
| Phenanthrene | 0.2 | 1.134937 | 0.5 | 1.1581 | 1 | 1.184863 | 5 | 1.175284 | 10 | 1.202262 | 20 | 1.17303 |
| Pyrene | 0.2 | 1.092794 | 0.5 | 1.147446 | 1 | 1.174827 | 5 | 1.234693 | 10 | 1.289576 | 20 | 1.223257 |
| Terphenyl-d14 | 0.2 | 0.6118179 | 0.5 | 0.7063144 | 1 | 0.7228992 | 5 | 0.7705175 | 10 | 0.8117648 | 20 | 0.7422102 |
| 2,4,6-Tribromophenol | 0.4 | ~~6.326415E-02~~ | 1 | ~~8.579129E-02~~ | 2 | ~~0.1089983~~ | 10 | 0.1584169 | 20 | 0.1656128 | 40 | 0.175367 |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |
| Acenaphthene | 0.2 | 0.8535207 | 0.5 | 0.873421 | 1 | 0.9064357 | 5 | 0.8395738 | 10 | 0.784535 | 20 | 0.8168652 |
| Acenaphthylene | 0.2 | 1.382044 | 0.5 | 1.218477 | 1 | 1.435272 | 5 | 1.311268 | 10 | 1.208637 | 20 | 1.217291 |
| Anthracene | 0.2 | 1.058534 | 0.5 | 1.093939 | 1 | 1.125915 | 5 | 1.133941 | 10 | 1.170225 | 20 | 1.132615 |
| Benzo(a)anthracene | 0.2 | 0.6476147 | 0.5 | 0.7623581 | 1 | 0.8156699 | 5 | 0.8984042 | 10 | 1.054533 | 20 | 0.8423353 |
| Benzo(a)pyrene | 0.2 | 1.02565 | 0.5 | 1.014554 | 1 | 1.005352 | 5 | 1.046623 | 10 | 1.13987 | 20 | 1.083464 |
| Benzo(b)fluoranthene | 0.2 | 1.352174 | 0.5 | 1.123357 | 1 | 1.241503 | 5 | 1.234178 | 10 | 1.470413 | 20 | 1.430442 |
| Benzo(g,h,i)perylene | 0.2 | 1.25079 | 0.5 | 0.9738602 | 1 | 0.9538002 | 5 | 0.8937802 | 10 | 0.8523731 | 20 | 0.9100527 |
| Benzo(k)fluoranthene | 0.2 | 1.25079 | 0.5 | 1.187413 | 1 | 1.228864 | 5 | 1.399423 | 10 | 1.350928 | 20 | 1.327367 |
| Chrysene | 0.2 | 0.7374538 | 0.5 | 0.8493865 | 1 | 0.842695 | 5 | 0.9126712 | 10 | 1.060452 | 20 | 0.7892754 |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Dibenz(a,h)anthracene | 0.2 | 0.9186101 | 0.5 | 0.772847 | 1 | 0.7332764 | 5 | 0.807053 | 10 | 0.8074299 | 20 | 0.8601228 |
| Fluoranthene | 0.2 | 1.051742 | 0.5 | 1.162418 | 1 | 1.179913 | 5 | 1.225501 | 10 | 1.272376 | 20 | 1.210129 |
| Fluorene | 0.2 | 0.7020536 | 0.5 | 0.7674959 | 1 | 0.8242432 | 5 | 0.8055957 | 10 | 0.8027371 | 20 | 0.8141917 |
| 2-Fluorobiphenyl | 0.2 | 0.9678027 | 0.5 | 0.9267382 | 1 | 0.971158 | 5 | 0.9172978 | 10 | 0.8347461 | 20 | 0.8721172 |
| Indeno(1,2,3-cd)pyrene | 0.2 | 1.19648 | 0.5 | 1.0475 | 1 | 1.041161 | 5 | 1.035051 | 10 | 1.034813 | 20 | 1.078813 |
| 1-Methylnaphthalene | 0.2 | 1.063294 | 0.5 | 0.9409067 | 1 | 0.9548364 | 5 | 0.8620632 | 10 | 0.8000648 | 20 | 0.8432121 |
| 2-Methylnaphthalene | 0.2 | 1.091703 | 0.5 | 0.9503314 | 1 | 0.953009 | 5 | 0.8485033 | 10 | 0.790738 | 20 | 0.8347751 |
| Naphthalene | 0.2 | 1.685474 | 0.5 | 1.472423 | 1 | 1.51616 | 5 | 1.341546 | 10 | 1.240043 | 20 | 1.318205 |
| Phenanthrene | 0.2 | 1.134937 | 0.5 | 1.1581 | 1 | 1.184863 | 5 | 1.175284 | 10 | 1.202262 | 20 | 1.17303 |
| Pyrene | 0.2 | 1.092794 | 0.5 | 1.147446 | 1 | 1.174827 | 5 | 1.234693 | 10 | 1.289576 | 20 | 1.223257 |
| Terphenyl-d14 | 0.2 | 0.6118179 | 0.5 | 0.7063144 | 1 | 0.7228992 | 5 | 0.7705175 | 10 | 0.8117648 | 20 | 0.7422102 |
| 2,4,6-Tribromophenol | 0.4 | ~~6.326415E-02~~ | 1 | ~~8.579129E-02~~ | 2 | ~~0.1089983~~ | 10 | 0.1584169 | 20 | 0.1656128 | 40 | 0.175367 |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 40 | 0.7820316 | 50 | 0.7652934 | | | | | | | | |
| Acenaphthylene | 40 | 1.094458 | 50 | 1.018169 | | | | | | | | |
| Anthracene | 40 | 1.152126 | 50 | 1.196303 | | | | | | | | |
| Benzo(a)anthracene | 40 | 1.003107 | 50 | 0.9291589 | | | | | | | | |
| Benzo(a)pyrene | 40 | 1.080537 | 50 | 1.058466 | | | | | | | | |
| Benzo(b)fluoranthene | 40 | 1.335067 | 50 | 1.516975 | | | | | | | | |
| Benzo(g,h,i)perylene | 40 | 0.9253269 | 50 | 0.8257036 | | | | | | | | |
| Benzo(k)fluoranthene | 40 | 1.386509 | 50 | 1.229503 | | | | | | | | |
| Chrysene | 40 | 0.9474654 | 50 | 0.8935192 | | | | | | | | |
| Dibenz(a,h)anthracene | 40 | 0.8924079 | 50 | 0.7981977 | | | | | | | | |
| Fluoranthene | 40 | 1.255338 | 50 | 1.219358 | | | | | | | | |
| Fluorene | 40 | 0.7859858 | 50 | 0.8053954 | | | | | | | | |
| 2-Fluorobiphenyl | 40 | 0.8111573 | 50 | 0.8142831 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 40 | 1.109845 | 50 | 0.9998711 | | | | | | | | |
| 1-Methylnaphthalene | 40 | 0.7771338 | 50 | 0.7467535 | | | | | | | | |
| 2-Methylnaphthalene | 40 | 0.7827356 | 50 | 0.7506397 | | | | | | | | |
| Naphthalene | 40 | 1.179985 | 50 | 1.155622 | | | | | | | | |
| Phenanthrene | 40 | 1.176864 | 50 | 1.189216 | | | | | | | | |
| Pyrene | 40 | 1.276995 | 50 | 1.213951 | | | | | | | | |
| Terphenyl-d14 | 40 | 0.8018532 | 50 | 0.7661409 | | | | | | | | |
| 2,4,6-Tribromophenol | 80 | 0.1735388 | 100 | 0.164136 | | | | | | | | |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | | | | | | | | |
| Acenaphthene | 40 | 0.7820316 | 50 | 0.7652934 | | | | | | | | |
| Acenaphthylene | 40 | 1.094458 | 50 | 1.018169 | | | | | | | | |
| Anthracene | 40 | 1.152126 | 50 | 1.196303 | | | | | | | | |
| Benzo(a)anthracene | 40 | 1.003107 | 50 | 0.9291589 | | | | | | | | |
| Benzo(a)pyrene | 40 | 1.080537 | 50 | 1.058466 | | | | | | | | |
| Benzo(b)fluoranthene | 40 | 1.335067 | 50 | 1.516975 | | | | | | | | |
| Benzo(g,h,i)perylene | 40 | 0.9253269 | 50 | 0.8257036 | | | | | | | | |
| Benzo(k)fluoranthene | 40 | 1.386509 | 50 | 1.229503 | | | | | | | | |
| Chrysene | 40 | 0.9474654 | 50 | 0.8935192 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Dibenz(a,h)anthracene | 40 | 0.8924079 | 50 | 0.7981977 | | | | | | | | |
| Fluoranthene | 40 | 1.255338 | 50 | 1.219358 | | | | | | | | |
| Fluorene | 40 | 0.7859858 | 50 | 0.8053954 | | | | | | | | |
| 2-Fluorobiphenyl | 40 | 0.8111573 | 50 | 0.8142831 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 40 | 1.109845 | 50 | 0.9998711 | | | | | | | | |
| 1-Methylnaphthalene | 40 | 0.7771338 | 50 | 0.7467535 | | | | | | | | |
| 2-Methylnaphthalene | 40 | 0.7827356 | 50 | 0.7506397 | | | | | | | | |
| Naphthalene | 40 | 1.179985 | 50 | 1.155622 | | | | | | | | |
| Phenanthrene | 40 | 1.176864 | 50 | 1.189216 | | | | | | | | |
| Pyrene | 40 | 1.276995 | 50 | 1.213951 | | | | | | | | |
| Terphenyl-d14 | 40 | 0.8018532 | 50 | 0.7661409 | | | | | | | | |
| 2,4,6-Tribromophenol | 80 | 0.1735388 | 100 | 0.164136 | | | | | | | | |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | | | | | | | | |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/01/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:01 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.55 | PASS |
| 69 | Less than 200% of 198 | 50.4 | PASS |
| 70 | Less than 2% of 69 | 0.486 | PASS |
| 127 | 40 - 60% of 198 | 56.1 | PASS |
| 197 | Less than 1% of 198 | 1 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.03 | PASS |
| 275 | 10 - 30% of 198 | 25.6 | PASS |
| 365 | 1 - 200% of 198 | 3.45 | PASS |
| 441 | 0.001 - 100% of 443 | 82.1 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1C06115 | Injection Date: | 03/01/11 |
| Lab Sample ID: | 1C06115-ICV1 | Injection Time: | 12:19 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.234 | 0.8277096 | 0.8665216 | | 4.7 | 20 |
| Acenaphthylene | A | 5.000 | 5.787 | 1.235702 | 1.430186 | | 15.7 | 20 |
| Anthracene | A | 5.000 | 5.426 | 1.13295 | 1.229415 | | 8.5 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.970 | 0.8691476 | 0.9136814 | | -0.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.399 | 1.056815 | 1.141205 | | 8.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.866 | 1.338014 | 1.302123 | | -2.7 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.830 | 0.9482109 | 0.9159273 | | -3.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.796 | 1.2951 | 1.501354 | | 15.9 | 20 |
| Chrysene | A | 5.000 | 5.406 | 0.8791148 | 0.9505258 | | 8.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.789 | 0.8237431 | 0.7889492 | | -4.2 | 20 |
| Fluoranthene | A | 5.000 | 5.284 | 1.197097 | 1.265188 | | 5.7 | 20 |
| Fluorene | A | 5.000 | 5.335 | 0.7884623 | 0.8413243 | | 6.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.885 | 1.067942 | 1.043478 | | -2.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.030 | 0.8735331 | 0.8786867 | | 0.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.052 | 0.8753044 | 0.88448 | | 1.0 | 20 |
| Naphthalene | A | 5.000 | 5.217 | 1.363682 | 1.422778 | | 4.3 | 20 |
| Phenanthrene | A | 5.000 | 5.384 | 1.17432 | 1.264507 | | 7.7 | 20 |
| Pyrene | A | 5.000 | 5.486 | 1.206692 | 1.324032 | | 9.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.477 | 0.8894126 | 0.974327 | | 9.5 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.816 | 0.7416898 | 0.8626973 | | 16.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09412 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09412-TUN1 | SEQ-TUN1.D | 03/31/11 12:55 |
| Calibration Check | 1D09412-CCV1 | SEQ-CCV1.D | 03/31/11 13:15 |
| LCS | 1C25007-BS1 | C25007L1.D | 03/31/11 13:43 |
| Blank | 1C25007-BLK1 | C25007B1.D | 03/31/11 14:10 |
| 05-SS-013-0204 | 1103220-02 | 0322002.D | 03/31/11 19:38 |
| 05-SS-013-0204-D | 1103220-04 | 0322004.D | 03/31/11 20:05 |
| 05-SS-014-0204 | 1103220-05 | 0322005.D | 03/31/11 20:32 |
| 05-SS-016-0204 | 1103220-08 | 0322008.D | 03/31/11 20:59 |
| 05-SS-018-1520 | 1103220-10 | 0322010.D | 03/31/11 21:27 |
| 05-SS-019-0204 | 1103220-11 | 0322011.D | 03/31/11 21:54 |
| 05-SS-015-0204 | 1103220-07 | 0322007.D | 03/31/11 23:17 |
| 05-SS-017-0204 | 1103220-09 | 0322009.D | 03/31/11 23:45 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/31/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:55 |
| Sequence: | 1D09412 | Lab Sample ID: | 1D09412-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 34 | PASS |
| 68 | Less than 2% of 69 | 1.69 | PASS |
| 69 | Less than 200% of 198 | 35.8 | PASS |
| 70 | Less than 2% of 69 | 0.514 | PASS |
| 127 | 40 - 60% of 198 | 48.1 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.73 | PASS |
| 275 | 10 - 30% of 198 | 29.7 | PASS |
| 365 | 1 - 200% of 198 | 4.51 | PASS |
| 441 | 0.001 - 100% of 443 | 83.8 | PASS |
| 442 | 40 - 200% of 198 | 154 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D09412 | Injection Date: | 03/31/11 |
| Lab Sample ID: | 1D09412-CCV1 | Injection Time: | 13:15 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.261 | 0.8277096 | 0.870867 | | 5.2 | 20 |
| Acenaphthylene | A | 5.000 | 5.390 | 1.235702 | 1.332199 | | 7.8 | 20 |
| Anthracene | A | 5.000 | 5.242 | 1.13295 | 1.187774 | | 4.8 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.902 | 0.8691476 | 0.9004898 | | -2.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.082 | 1.056815 | 1.074229 | | 1.6 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.985 | 1.338014 | 1.334033 | | -0.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.364 | 0.9482109 | 0.8276065 | | -12.7 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.007 | 1.2951 | 1.297046 | | 0.2 | 20 |
| Chrysene | A | 5.000 | 5.055 | 0.8791148 | 0.8888422 | | 1.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.311 | 0.8237431 | 0.710273 | | -13.8 | 20 |
| Fluoranthene | A | 5.000 | 5.064 | 1.197097 | 1.212537 | | 1.3 | 20 |
| Fluorene | A | 5.000 | 5.372 | 0.7884623 | 0.847197 | | 7.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.400 | 1.067942 | 0.9398346 | | -12.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.905 | 0.8735331 | 0.8569499 | | -1.9 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.921 | 0.8753044 | 0.861496 | | -1.6 | 20 |
| Naphthalene | A | 5.000 | 4.671 | 1.363682 | 1.274066 | | -6.6 | 20 |
| Phenanthrene | A | 5.000 | 5.131 | 1.17432 | 1.205175 | | 2.6 | 20 |
| Pyrene | A | 5.000 | 5.426 | 1.206692 | 1.309573 | | 8.5 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.188 | 0.8894126 | 0.9229292 | | 3.8 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.489 | 0.7416898 | 0.8142222 | | 9.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09509-TUN1 | SEQ-TUN1.D | 04/04/11 11:32 |
| Calibration Check | 1D09509-CCV1 | SEQ-CCV1.D | 04/04/11 14:11 |
| LCS | 1C28023-BS1 | C28023L1.D | 04/04/11 14:39 |
| LCS Dup | 1C28023-BSD1 | C28023L2.D | 04/04/11 15:07 |
| EQUIP BLANK 01 | 1103220-01 | 0322001.D | 04/04/11 16:32 |
| 05-MW-014 | 1103220-06 | 0322006.D | 04/04/11 16:59 |
| LCS | 1D04013-BS1 | D04013L1.D | 04/04/11 20:14 |
| Blank | 1D04013-BLK1 | D04013B1.D | 04/04/11 20:41 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/04/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 11:32 |
| Sequence: | 1D09509 | Lab Sample ID: | 1D09509-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 33.7 | PASS |
| 68 | Less than 2% of 69 | 1.51 | PASS |
| 69 | Less than 200% of 198 | 35.6 | PASS |
| 70 | Less than 2% of 69 | 0.482 | PASS |
| 127 | 40 - 60% of 198 | 47.9 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.4 | PASS |
| 275 | 10 - 30% of 198 | 29.1 | PASS |
| 365 | 1 - 200% of 198 | 4.48 | PASS |
| 441 | 0.001 - 100% of 443 | 83.7 | PASS |
| 442 | 40 - 200% of 198 | 150 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D09509 | Injection Date: | 04/04/11 |
| Lab Sample ID: | 1D09509-CCV1 | Injection Time: | 14:11 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.878 | 0.8277096 | 0.8074588 | | -2.4 | 20 |
| Acenaphthylene | A | 5.000 | 4.960 | 1.235702 | 1.225901 | | -0.8 | 20 |
| Anthracene | A | 5.000 | 4.914 | 1.13295 | 1.113501 | | -1.7 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.574 | 0.8691476 | 0.8378458 | | -8.5 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.905 | 1.056815 | 1.036706 | | -1.9 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.551 | 1.338014 | 1.217995 | | -9.0 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.161 | 0.9482109 | 0.7890567 | | -16.8 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.487 | 1.2951 | 1.421336 | | 9.7 | 20 |
| Chrysene | A | 5.000 | 4.889 | 0.8791148 | 0.8596668 | | -2.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.424 | 0.8237431 | 0.7288403 | | -11.5 | 20 |
| Fluoranthene | A | 5.000 | 4.938 | 1.197097 | 1.182246 | | -1.2 | 20 |
| Fluorene | A | 5.000 | 5.001 | 0.7884623 | 0.7886655 | | 0.03 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.248 | 1.067942 | 0.9072291 | | -15.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.586 | 0.8735331 | 0.8012969 | | -8.3 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.575 | 0.8753044 | 0.8009544 | | -8.5 | 20 |
| Naphthalene | A | 5.000 | 4.386 | 1.363682 | 1.196311 | | -12.3 | 20 |
| Phenanthrene | A | 5.000 | 4.980 | 1.17432 | 1.169713 | | -0.4 | 20 |
| Pyrene | A | 5.000 | 5.166 | 1.206692 | 1.246698 | | 3.3 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.904 | 0.8894126 | 0.8723796 | | -1.9 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.267 | 0.7416898 | 0.7813099 | | 5.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09607-TUN1 | SEQ-TUN1.D | 04/05/11 11:10 |
| Calibration Check | 1D09607-CCV1 | SEQ-CCV1.D | 04/05/11 11:31 |
| Blank | 1C28023-BLK1 | C2823B1R.D | 04/05/11 12:27 |
| 05-SS-020-0204 | 1103228-01 | 0322801.D | 04/05/11 13:23 |
| 05-SS-021-0204 | 1103228-03 | 0322803.D | 04/05/11 13:51 |
| 05-SS-022-0204 | 1103228-04 | 0322804.D | 04/05/11 14:19 |
| 05-SS-023-0204 | 1103228-05 | 0322805.D | 04/05/11 14:47 |
| 05-SS-024-0204 | 1103228-06 | 0322806.D | 04/05/11 15:16 |
| 05-SS-025-0204 | 1103228-07 | 0322807.D | 04/05/11 15:44 |
| 05-SS-026-0204 | 1103228-08 | 0322808.D | 04/05/11 16:12 |
| 05-SS-020-0204 | 1D04013-MS2 | 0322801M.D | 04/05/11 20:48 |
| 05-SS-020-0204 | 1D04013-MSD2 | 0322801S.D | 04/05/11 21:16 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/05/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 11:10 |
| Sequence: | 1D09607 | Lab Sample ID: | 1D09607-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 50 | PASS |
| 68 | Less than 2% of 69 | 1.5 | PASS |
| 69 | Less than 200% of 198 | 48.8 | PASS |
| 70 | Less than 2% of 69 | 0.489 | PASS |
| 127 | 40 - 60% of 198 | 53.7 | PASS |
| 197 | Less than 1% of 198 | 0.662 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.71 | PASS |
| 275 | 10 - 30% of 198 | 28.6 | PASS |
| 365 | 1 - 200% of 198 | 4.25 | PASS |
| 441 | 0.001 - 100% of 443 | 79.5 | PASS |
| 442 | 40 - 200% of 198 | 158 | PASS |
| 443 | 17 - 23% of 442 | 20.2 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D09607 | Injection Date: | 04/05/11 |
| Lab Sample ID: | 1D09607-CCV1 | Injection Time: | 11:31 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.338 | 0.8277096 | 0.8836884 | | 6.8 | 20 |
| Acenaphthylene | A | 5.000 | 5.421 | 1.235702 | 1.339664 | | 8.4 | 20 |
| Anthracene | A | 5.000 | 5.089 | 1.13295 | 1.15306 | | 1.8 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.367 | 0.8691476 | 0.798171 | | -12.7 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.273 | 1.056815 | 1.114439 | | 5.5 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.726 | 1.338014 | 1.264827 | | -5.5 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.006 | 0.9482109 | 0.7597075 | | -19.9 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.778 | 1.2951 | 1.496596 | | 15.6 | 20 |
| Chrysene | A | 5.000 | 4.490 | 0.8791148 | 0.7895147 | | -10.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.711 | 0.8237431 | 0.7761675 | | -5.8 | 20 |
| Fluoranthene | A | 5.000 | 4.886 | 1.197097 | 1.169874 | | -2.3 | 20 |
| Fluorene | A | 5.000 | 5.469 | 0.7884623 | 0.8624296 | | 9.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.497 | 1.067942 | 0.9604564 | | -10.1 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.043 | 0.8735331 | 0.8810955 | | 0.9 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.005 | 0.8753044 | 0.8761927 | | 0.1 | 20 |
| Naphthalene | A | 5.000 | 4.793 | 1.363682 | 1.307124 | | -4.1 | 20 |
| Phenanthrene | A | 5.000 | 5.178 | 1.17432 | 1.216239 | | 3.6 | 20 |
| Pyrene | A | 5.000 | 5.048 | 1.206692 | 1.218342 | | 1.0 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.292 | 0.8894126 | 0.9412943 | | 5.8 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.088 | 0.7416898 | 0.7548253 | | 1.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C25007 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-013-0204 | 1103220-02 | 03/30/11 18:45 | 15.30 | 1.00 |
| 05-SS-013-0204-D | 1103220-04 | 03/30/11 18:45 | 15.40 | 1.00 |
| 05-SS-014-0204 | 1103220-05 | 03/30/11 18:45 | 15.00 | 1.00 |
| 05-SS-015-0204 | 1103220-07 | 03/30/11 18:45 | 15.30 | 1.00 |
| 05-SS-016-0204 | 1103220-08 | 03/30/11 18:45 | 15.10 | 1.00 |
| 05-SS-017-0204 | 1103220-09 | 03/30/11 18:45 | 15.00 | 1.00 |
| 05-SS-018-1520 | 1103220-10 | 03/30/11 18:45 | 15.00 | 1.00 |
| 05-SS-019-0204 | 1103220-11 | 03/30/11 18:45 | 15.30 | 1.00 |
| Blank | 1C25007-BLK1 | 03/30/11 18:45 | 15.00 | 1.00 |
| LCS | 1C25007-BS1 | 03/30/11 18:45 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C25007-BLK1 | File ID: | C25007B1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/31/11 14:10 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1C25007 Sequence: 1D09412 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.174 | 95.2 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 3.228 | 96.9 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1C25007 | Laboratory ID: | 1C25007-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.06901 | 104 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.05890 | 88.4 | 23 - 126 |
| Anthracene | 0.06667 | 0.06961 | 104 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.07368 | 111 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.06241 | 93.6 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.06207 | 93.1 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.06425 | 96.4 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.07668 | 115 | 42 - 129 |
| Chrysene | 0.06667 | 0.06897 | 103 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.06667 | 0.06148 | 92.2 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.06977 | 105 | 30 - 142 |
| Fluorene | 0.06667 | 0.06925 | 104 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.06041 | 90.6 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.06203 | 93.1 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.06164 | 92.5 | 30 - 111 |
| Naphthalene | 0.06667 | 0.06016 | 90.2 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.07146 | 107 | 32 - 127 |
| Pyrene | 0.06667 | 0.07215 | 108 | 28 - 130 |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: ~~Tetra Tech~~ NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C28023

Batch Matrix: Water

Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 01 | 1103220-01 | 03/29/11 13:24 | 1,070.00 | 1.00 |
| 05-MW-014 | 1103220-06 | 03/29/11 13:24 | 1,000.00 | 1.00 |
| Blank | 1C28023-BLK1 | 03/29/11 13:24 | 1,000.00 | 1.00 |
| LCS | 1C28023-BS1 | 03/29/11 13:24 | 1,000.00 | 1.00 |
| LCS Dup | 1C28023-BSD1 | 03/29/11 13:24 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C28023-BLK1 | File ID: | C2823B1R.D |
| Sampled: | | Prepared: | | Analyzed: | 04/05/11 12:27 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1C28023 Sequence: 1D09607 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 41.87 | 83.7 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 46.74 | 93.5 | 34 - 167 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C28023 | Laboratory ID: | 1C28023-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 1.000 | 0.8038 | 80.4 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.7138 | 71.4 | 43 - 140 |
| Anthracene | 1.000 | 0.8148 | 81.5 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 0.7708 | 77.1 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.7252 | 72.5 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.8684 | 86.8 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.9522 | 95.2 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 1.012 | 101 | 49 - 165 |
| Chrysene | 1.000 | 0.6463 | 64.6 | 51 - 155 |
| Dibenz(a,h)anthracene | 1.000 | 0.9661 | 96.6 | 28 - 153 |
| Fluoranthene | 1.000 | 0.8167 | 81.7 | 47 - 158 |
| Fluorene | 1.000 | 0.8670 | 86.7 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.9529 | 95.3 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.7799 | 78.0 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.8341 | 83.4 | 36 - 121 |
| Naphthalene | 1.000 | 0.7833 | 78.3 | 39 - 125 |
| Phenanthrene | 1.000 | 0.8996 | 90.0 | 46 - 144 |
| Pyrene | 1.000 | 0.7874 | 78.7 | 39 - 158 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 1.000 | 1.110 | 111 | 32.0 * | 30 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.9293 | 92.9 | 26.2 | 30 | 43 - 140 |
| Anthracene | 1.000 | 1.031 | 103 | 23.5 | 30 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 0.8625 | 86.2 | 11.2 | 30 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.8694 | 86.9 | 18.1 | 30 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.9893 | 98.9 | 13.0 | 30 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.9479 | 94.8 | 0.458 | 30 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 1.134 | 113 | 11.4 | 30 | 49 - 165 |
| Chrysene | 1.000 | 0.7561 | 75.6 | 15.7 | 30 | 51 - 155 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C28023 | Laboratory ID: | 1C28023-BSD1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 1.000 | 1.072 | 107 | 10.4 | 30 | 28 - 153 |
| Fluoranthene | 1.000 | 0.9880 | 98.8 | 19.0 | 30 | 47 - 158 |
| Fluorene | 1.000 | 1.118 | 112 | 25.3 | 30 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 1.000 | 100 | 4.81 | 30 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 1.012 | 101 | 25.9 | 30 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 1.043 | 104 | 22.2 | 30 | 36 - 121 |
| Naphthalene | 1.000 | 0.9910 | 99.1 | 23.4 | 30 | 39 - 125 |
| Phenanthrene | 1.000 | 1.090 | 109 | 19.1 | 30 | 46 - 144 |
| Pyrene | 1.000 | 0.9844 | 98.4 | 22.2 | 30 | 39 - 158 |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D04013 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-020-0204 | 1103228-01 | 04/04/11 14:55 | 15.20 | 1.00 |
| 05-SS-021-0204 | 1103228-03 | 04/04/11 14:55 | 15.40 | 1.00 |
| 05-SS-022-0204 | 1103228-04 | 04/04/11 14:55 | 15.00 | 1.00 |
| 05-SS-023-0204 | 1103228-05 | 04/04/11 14:55 | 15.40 | 1.00 |
| 05-SS-024-0204 | 1103228-06 | 04/04/11 14:55 | 15.50 | 1.00 |
| 05-SS-025-0204 | 1103228-07 | 04/04/11 14:55 | 15.20 | 1.00 |
| 05-SS-026-0204 | 1103228-08 | 04/04/11 14:55 | 15.70 | 1.00 |
| Blank | 1D04013-BLK1 | 04/04/11 14:55 | 15.00 | 1.00 |
| LCS | 1D04013-BS1 | 04/04/11 14:55 | 15.00 | 1.00 |
| 05-SS-020-0204 | 1D04013-MS2 | 04/04/11 14:55 | 15.30 | 1.00 |
| 05-SS-020-0204 | 1D04013-MSD2 | 04/04/11 14:55 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D04013-BLK1 | File ID: | D04013B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/04/11 20:41 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |
| Batch: | 1D04013 | Sequence: | 1D09509 | Calibration: | 1061004 |
| Instrument: | MS-BNA4 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg wet) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.689 | 80.7 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 2.747 | 82.4 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D04013 | Laboratory ID: | 1D04013-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.05829 | 87.4 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.04838 | 72.6 | 23 - 126 |
| Anthracene | 0.06667 | 0.05527 | 82.9 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.05642 | 84.6 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.05503 | 82.5 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.05950 | 89.3 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.05200 | 78.0 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.05682 | 85.2 | 42 - 129 |
| Chrysene | 0.06667 | 0.04570 | 68.5 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.06667 | 0.05630 | 84.5 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.05800 | 87.0 | 30 - 142 |
| Fluorene | 0.06667 | 0.05810 | 87.1 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.05384 | 80.8 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.05310 | 79.6 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.05322 | 79.8 | 30 - 111 |
| Naphthalene | 0.06667 | 0.04934 | 74.0 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.05848 | 87.7 | 32 - 127 |
| Pyrene | 0.06667 | 0.05745 | 86.2 | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

**05-SS-020-0204**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D04013

% Solids: 88.45

Source Sample Name: **1103228-01**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 0.07390 | ND | 0.05831 | 78.9 | | 28 - 110 |
| Acenaphthylene | 0.07390 | ND | 0.04830 | 65.4 | | 23 - 126 |
| Anthracene | 0.07390 | ND | 0.06208 | 84.0 | | 28 - 136 |
| Benzo(a)anthracene | 0.07390 | ND | 0.06886 | 93.2 | | 31 - 146 |
| Benzo(a)pyrene | 0.07390 | ND | 0.05919 | 80.1 | | 28 - 128 |
| Benzo(b)fluoranthene | 0.07390 | ND | 0.06262 | 84.7 | | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07390 | ND | 0.04908 | 66.4 | | 21 - 149 |
| Benzo(k)fluoranthene | 0.07390 | ND | 0.07330 | 99.2 | | 42 - 129 |
| Chrysene | 0.07390 | ND | 0.06026 | 81.5 | | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07390 | ND | 0.05862 | 79.3 | | 30 - 138 |
| Fluoranthene | 0.07390 | ND | 0.06343 | 85.8 | | 30 - 142 |
| Fluorene | 0.07390 | ND | 0.06415 | 86.8 | | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07390 | ND | 0.05127 | 69.4 | | 17 - 164 |
| 1-Methylnaphthalene | 0.07390 | ND | 0.05225 | 70.7 | | 30 - 111 |
| 2-Methylnaphthalene | 0.07390 | ND | 0.05566 | 75.3 | | 30 - 111 |
| Naphthalene | 0.07390 | ND | 0.05276 | 71.4 | | 29 - 106 |
| Phenanthrene | 0.07390 | ND | 0.06522 | 88.3 | | 32 - 127 |
| Pyrene | 0.07390 | ND | 0.06381 | 86.3 | | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

05-SS-020-0204

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D04013

% Solids: 88.45

Source Sample Name: **1103228-01**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.07538 | 0.06150 | 81.6 | 5.32 | | 30 | 28 - 110 |
| Acenaphthylene | 0.07538 | 0.05247 | 69.6 | 8.28 | | 30 | 23 - 126 |
| Anthracene | 0.07538 | 0.06430 | 85.3 | 3.53 | | 30 | 28 - 136 |
| Benzo(a)anthracene | 0.07538 | 0.07041 | 93.4 | 2.22 | | 30 | 31 - 146 |
| Benzo(a)pyrene | 0.07538 | 0.05871 | 77.9 | 0.815 | | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 0.07538 | 0.06266 | 83.1 | 0.0680 | | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07538 | 0.04542 | 60.3 | 7.75 | | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 0.07538 | 0.06980 | 92.6 | 4.88 | | 30 | 42 - 129 |
| Chrysene | 0.07538 | 0.06237 | 82.7 | 3.44 | | 30 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07538 | 0.05326 | 70.7 | 9.58 | | 30 | 30 - 138 |
| Fluoranthene | 0.07538 | 0.06597 | 87.5 | 3.93 | | 30 | 30 - 142 |
| Fluorene | 0.07538 | 0.06753 | 89.6 | 5.14 | | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07538 | 0.04832 | 64.1 | 5.91 | | 30 | 17 - 164 |
| 1-Methylnaphthalene | 0.07538 | 0.05590 | 74.2 | 6.75 | | 30 | 30 - 111 |
| 2-Methylnaphthalene | 0.07538 | 0.06004 | 79.7 | 7.57 | | 30 | 30 - 111 |
| Naphthalene | 0.07538 | 0.05473 | 72.6 | 3.67 | | 30 | 29 - 106 |
| Phenanthrene | 0.07538 | 0.06779 | 89.9 | 3.87 | | 30 | 32 - 127 |
| Pyrene | 0.07538 | 0.06511 | 86.4 | 2.02 | | 30 | 28 - 130 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09412 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09412-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 03/31/11 13:15 | | |
| 2-Fluorobiphenyl | 5.000 | 104 | 80 - 120 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 110 | 80 - 120 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |
| **LCS (1C25007-BS1 ) mg/Kg wet** | | | | Lab File ID: C25007L1.D | | Analyzed: 03/31/11 13:43 | | |
| 2-Fluorobiphenyl | 3.333 | 83.3 | 14 - 129 | 8.434 | 8.435 | -0.0010 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 101 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **Blank (1C25007-BLK1 ) mg/Kg wet** | | | | Lab File ID: C25007B1.D | | Analyzed: 03/31/11 14:10 | | |
| 2-Fluorobiphenyl | 3.333 | 95.2 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 96.9 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-013-0204 (1103220-02 ) mg/Kg dry** | | | | Lab File ID: 0322002.D | | Analyzed: 03/31/11 19:38 | | |
| 2-Fluorobiphenyl | 3.511 | 89.7 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.511 | 91.4 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-013-0204-D (1103220-04 ) mg/Kg dry** | | | | Lab File ID: 0322004.D | | Analyzed: 03/31/11 20:05 | | |
| 2-Fluorobiphenyl | 3.845 | 84.4 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.845 | 95.4 | 14 - 129 | 14.142 | 14.124 | 0.0180 | +/-0.500 | |
| **05-SS-014-0204 (1103220-05 ) mg/Kg dry** | | | | Lab File ID: 0322005.D | | Analyzed: 03/31/11 20:32 | | |
| 2-Fluorobiphenyl | 3.544 | 88.1 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.544 | 91.0 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-016-0204 (1103220-08 ) mg/Kg dry** | | | | Lab File ID: 0322008.D | | Analyzed: 03/31/11 20:59 | | |
| 2-Fluorobiphenyl | 3.555 | 95.0 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.555 | 91.2 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-018-1520 (1103220-10 ) mg/Kg dry** | | | | Lab File ID: 0322010.D | | Analyzed: 03/31/11 21:27 | | |
| 2-Fluorobiphenyl | 4.174 | 87.4 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 4.174 | 95.8 | 14 - 129 | 14.142 | 14.124 | 0.0180 | +/-0.500 | |
| **05-SS-019-0204 (1103220-11 ) mg/Kg dry** | | | | Lab File ID: 0322011.D | | Analyzed: 03/31/11 21:54 | | |
| 2-Fluorobiphenyl | 3.445 | 94.5 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.445 | 89.7 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-015-0204 (1103220-07 ) mg/Kg dry** | | | | Lab File ID: 0322007.D | | Analyzed: 03/31/11 23:17 | | |
| 2-Fluorobiphenyl | 3.841 | 90.2 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.841 | 92.9 | 14 - 129 | 14.143 | 14.124 | 0.0190 | +/-0.500 | |
| **05-SS-017-0204 (1103220-09 ) mg/Kg dry** | | | | Lab File ID: 0322009.D | | Analyzed: 03/31/11 23:45 | | |
| 2-Fluorobiphenyl | 3.579 | 90.4 | 14 - 129 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.579 | 90.9 | 14 - 129 | 14.142 | 14.124 | 0.0180 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09509-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/04/11 14:11 | | |
| 2-Fluorobiphenyl | 5.000 | 98.1 | 80 - 120 | 8.434 | 8.434 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 105 | 80 - 120 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |
| **LCS (1C28023-BS1 ) ug/L** | | | | Lab File ID: C28023L1.D | | Analyzed: 04/04/11 14:39 | | |
| 2-Fluorobiphenyl | 50.00 | 81.9 | 34 - 167 | 8.435 | 8.434 | 0.0010 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 90.1 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **LCS Dup (1C28023-BSD1 ) ug/L** | | | | Lab File ID: C28023L2.D | | Analyzed: 04/04/11 15:07 | | |
| 2-Fluorobiphenyl | 50.00 | 65.6 | 34 - 167 | 8.435 | 8.434 | 0.0010 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 89.3 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **EQUIP BLANK 01 (1103220-01 ) ug/L** | | | | Lab File ID: 0322001.D | | Analyzed: 04/04/11 16:32 | | |
| 2-Fluorobiphenyl | 46.73 | 78.3 | 34 - 167 | 8.434 | 8.434 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 46.73 | 73.0 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-MW-014 (1103220-06 ) ug/L** | | | | Lab File ID: 0322006.D | | Analyzed: 04/04/11 16:59 | | |
| 2-Fluorobiphenyl | 50.00 | 66.2 | 34 - 167 | 8.435 | 8.434 | 0.0010 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 45.5 | 34 - 167 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |
| **LCS (1D04013-BS1 ) mg/Kg wet** | | | | Lab File ID: D04013L1.D | | Analyzed: 04/04/11 20:14 | | |
| 2-Fluorobiphenyl | 3.333 | 70.9 | 14 - 129 | 8.434 | 8.434 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 77.3 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **Blank (1D04013-BLK1 ) mg/Kg wet** | | | | Lab File ID: D04013B1.D | | Analyzed: 04/04/11 20:41 | | |
| 2-Fluorobiphenyl | 3.333 | 80.7 | 14 - 129 | 8.434 | 8.434 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 82.4 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09607-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/05/11 11:31 | | |
| 2-Fluorobiphenyl | 5.000 | 106 | 80 - 120 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 102 | 80 - 120 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |
| **Blank (1C28023-BLK1 ) ug/L** | | | | Lab File ID: C2823B1R.D | | Analyzed: 04/05/11 12:27 | | |
| 2-Fluorobiphenyl | 50.00 | 83.7 | 34 - 167 | 8.444 | 8.435 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 93.5 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-020-0204 (1103228-01 ) mg/Kg dry** | | | | Lab File ID: 0322801.D | | Analyzed: 04/05/11 13:23 | | |
| 2-Fluorobiphenyl | 3.719 | 67.3 | 14 - 129 | 8.434 | 8.435 | -0.0010 | +/-0.500 | |
| Terphenyl-d14 | 3.719 | 82.9 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-021-0204 (1103228-03 ) mg/Kg dry** | | | | Lab File ID: 0322803.D | | Analyzed: 04/05/11 13:51 | | |
| 2-Fluorobiphenyl | 3.502 | 69.5 | 14 - 129 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.502 | 81.4 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-022-0204 (1103228-04 ) mg/Kg dry** | | | | Lab File ID: 0322804.D | | Analyzed: 04/05/11 14:19 | | |
| 2-Fluorobiphenyl | 4.001 | 67.5 | 14 - 129 | 8.434 | 8.435 | -0.0010 | +/-0.500 | |
| Terphenyl-d14 | 4.001 | 78.7 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-023-0204 (1103228-05 ) mg/Kg dry** | | | | Lab File ID: 0322805.D | | Analyzed: 04/05/11 14:47 | | |
| 2-Fluorobiphenyl | 3.621 | 69.3 | 14 - 129 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.621 | 78.5 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-024-0204 (1103228-06 ) mg/Kg dry** | | | | Lab File ID: 0322806.D | | Analyzed: 04/05/11 15:16 | | |
| 2-Fluorobiphenyl | 3.471 | 75.9 | 14 - 129 | 8.434 | 8.435 | -0.0010 | +/-0.500 | |
| Terphenyl-d14 | 3.471 | 89.3 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-025-0204 (1103228-07 ) mg/Kg dry** | | | | Lab File ID: 0322807.D | | Analyzed: 04/05/11 15:44 | | |
| 2-Fluorobiphenyl | 3.566 | 65.9 | 14 - 129 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.566 | 75.6 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-SS-026-0204 (1103228-08 ) mg/Kg dry** | | | | Lab File ID: 0322808.D | | Analyzed: 04/05/11 16:12 | | |
| 2-Fluorobiphenyl | 3.477 | 82.5 | 14 - 129 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.477 | 95.8 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **Matrix Spike (1D04013-MS2 ) mg/Kg dry** | | | | Lab File ID: 0322801M.D | | Analyzed: 04/05/11 20:48 | | |
| 2-Fluorobiphenyl | 3.695 | 68.5 | 14 - 129 | 8.434 | 8.435 | -0.0010 | +/-0.500 | |
| Terphenyl-d14 | 3.695 | 80.7 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **Matrix Spike Dup (1D04013-MSD2 ) mg/Kg dry** | | | | Lab File ID: 0322801S.D | | Analyzed: 04/05/11 21:16 | | |
| 2-Fluorobiphenyl | 3.769 | 72.5 | 14 - 129 | 8.434 | 8.435 | -0.0010 | +/-0.500 | |
| Terphenyl-d14 | 3.769 | 83.0 | 14 - 129 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09412 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09412-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 03/31/11 13:15 | | | |
| Phenanthrene-d10 | 114736 | 11.661 | 106904 | 11.432 | 107 | 50 - 200 | 0.2290 | +/-0.50 | |
| Perylene-d12 | 75801 | 17.722 | 80420 | 16.536 | 94 | 50 - 200 | 1.1860 | +/-0.50 | |
| **LCS (1C25007-BS1 )** | | | Lab File ID: C25007L1.D | | | Analyzed: 03/31/11 13:43 | | | |
| Phenanthrene-d10 | 96758 | 11.66 | 114736 | 11.661 | 84 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 58192 | 17.722 | 75801 | 17.722 | 77 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1C25007-BLK1 )** | | | Lab File ID: C25007B1.D | | | Analyzed: 03/31/11 14:10 | | | |
| Phenanthrene-d10 | 102894 | 11.67 | 114736 | 11.661 | 90 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 46479 | 17.722 | 75801 | 17.722 | 61 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-013-0204 (1103220-02 )** | | | Lab File ID: 0322002.D | | | Analyzed: 03/31/11 19:38 | | | |
| Phenanthrene-d10 | 117864 | 11.66 | 114736 | 11.661 | 103 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 51628 | 17.722 | 75801 | 17.722 | 68 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-013-0204-D (1103220-04 )** | | | Lab File ID: 0322004.D | | | Analyzed: 03/31/11 20:05 | | | |
| Phenanthrene-d10 | 127758 | 11.66 | 114736 | 11.661 | 111 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 68261 | 17.722 | 75801 | 17.722 | 90 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-014-0204 (1103220-05 )** | | | Lab File ID: 0322005.D | | | Analyzed: 03/31/11 20:32 | | | |
| Phenanthrene-d10 | 114676 | 11.66 | 114736 | 11.661 | 100 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 52742 | 17.722 | 75801 | 17.722 | 70 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-016-0204 (1103220-08 )** | | | Lab File ID: 0322008.D | | | Analyzed: 03/31/11 20:59 | | | |
| Phenanthrene-d10 | 109170 | 11.66 | 114736 | 11.661 | 95 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 46169 | 17.721 | 75801 | 17.722 | 61 | 50 - 200 | -0.0010 | +/-0.50 | |
| **05-SS-018-1520 (1103220-10 )** | | | Lab File ID: 0322010.D | | | Analyzed: 03/31/11 21:27 | | | |
| Phenanthrene-d10 | 128116 | 11.66 | 114736 | 11.661 | 112 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 82752 | 17.721 | 75801 | 17.722 | 109 | 50 - 200 | -0.0010 | +/-0.50 | |
| **05-SS-019-0204 (1103220-11 )** | | | Lab File ID: 0322011.D | | | Analyzed: 03/31/11 21:54 | | | |
| Phenanthrene-d10 | 113919 | 11.66 | 114736 | 11.661 | 99 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 47314 | 17.722 | 75801 | 17.722 | 62 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-015-0204 (1103220-07 )** | | | Lab File ID: 0322007.D | | | Analyzed: 03/31/11 23:17 | | | |
| Phenanthrene-d10 | 124121 | 11.66 | 114736 | 11.661 | 108 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 67719 | 17.722 | 75801 | 17.722 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-017-0204 (1103220-09 )** | | | Lab File ID: 0322009.D | | | Analyzed: 03/31/11 23:45 | | | |
| Phenanthrene-d10 | 119046 | 11.66 | 114736 | 11.661 | 104 | 50 - 200 | -0.0010 | +/-0.50 | |
| Perylene-d12 | 60103 | 17.722 | 75801 | 17.722 | 79 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09509-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/04/11 14:11 | | | |
| Phenanthrene-d10 | 120288 | 11.66 | 106904 | 11.432 | 113 | 50 - 200 | 0.2280 | +/-0.50 | |
| Phenanthrene-d10 | 120288 | 11.66 | 106904 | 11.432 | 113 | 50 - 200 | 0.2280 | +/-0.50 | |
| Perylene-d12 | 74767 | 17.712 | 80420 | 16.536 | 93 | 50 - 200 | 1.1760 | +/-0.50 | |
| Perylene-d12 | 74767 | 17.712 | 80420 | 16.536 | 93 | 50 - 200 | 1.1760 | +/-0.50 | |
| **LCS (1C28023-BS1 )** | | | Lab File ID: C28023L1.D | | | Analyzed: 04/04/11 14:39 | | | |
| Phenanthrene-d10 | 99552 | 11.66 | 120288 | 11.66 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 99552 | 11.66 | 120288 | 11.66 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 39301 | 17.722 | 74767 | 17.712 | 53 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 39301 | 17.722 | 74767 | 17.712 | 53 | 50 - 200 | 0.0100 | +/-0.50 | |
| **LCS Dup (1C28023-BSD1 )** | | | Lab File ID: C28023L2.D | | | Analyzed: 04/04/11 15:07 | | | |
| Phenanthrene-d10 | 99762 | 11.66 | 120288 | 11.66 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 99762 | 11.66 | 120288 | 11.66 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 38607 | 17.722 | 74767 | 17.712 | 52 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 38607 | 17.722 | 74767 | 17.712 | 52 | 50 - 200 | 0.0100 | +/-0.50 | |
| **EQUIP BLANK 01 (1103220-01 )** | | | Lab File ID: 0322001.D | | | Analyzed: 04/04/11 16:32 | | | |
| Phenanthrene-d10 | 96506 | 11.66 | 120288 | 11.66 | 80 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 96506 | 11.66 | 120288 | 11.66 | 80 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 41222 | 17.731 | 74767 | 17.712 | 55 | 50 - 200 | 0.0190 | +/-0.50 | |
| Perylene-d12 | 41222 | 17.731 | 74767 | 17.712 | 55 | 50 - 200 | 0.0190 | +/-0.50 | |
| **05-MW-014 (1103220-06 )** | | | Lab File ID: 0322006.D | | | Analyzed: 04/04/11 16:59 | | | |
| Phenanthrene-d10 | 97923 | 11.66 | 120288 | 11.66 | 81 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 97923 | 11.66 | 120288 | 11.66 | 81 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 43344 | 17.722 | 74767 | 17.712 | 58 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 43344 | 17.722 | 74767 | 17.712 | 58 | 50 - 200 | 0.0100 | +/-0.50 | |
| **LCS (1D04013-BS1 )** | | | Lab File ID: D04013L1.D | | | Analyzed: 04/04/11 20:14 | | | |
| Phenanthrene-d10 | 107959 | 11.66 | 120288 | 11.66 | 90 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 107959 | 11.66 | 120288 | 11.66 | 90 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 50085 | 17.722 | 74767 | 17.712 | 67 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 50085 | 17.722 | 74767 | 17.712 | 67 | 50 - 200 | 0.0100 | +/-0.50 | |
| **Blank (1D04013-BLK1 )** | | | Lab File ID: D04013B1.D | | | Analyzed: 04/04/11 20:41 | | | |
| Phenanthrene-d10 | 119255 | 11.66 | 120288 | 11.66 | 99 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 119255 | 11.66 | 120288 | 11.66 | 99 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 43550 | 17.721 | 74767 | 17.712 | 58 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 43550 | 17.721 | 74767 | 17.712 | 58 | 50 - 200 | 0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09607-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/05/11 11:31 | | | |
| Phenanthrene-d10 | 121484 | 11.66 | 106904 | 11.432 | 114 | 50 - 200 | 0.2280 | +/-0.50 | |
| Phenanthrene-d10 | 121484 | 11.66 | 106904 | 11.432 | 114 | 50 - 200 | 0.2280 | +/-0.50 | |
| Perylene-d12 | 68092 | 17.712 | 80420 | 16.536 | 85 | 50 - 200 | 1.1760 | +/-0.50 | |
| Perylene-d12 | 68092 | 17.712 | 80420 | 16.536 | 85 | 50 - 200 | 1.1760 | +/-0.50 | |
| **Blank (1C28023-BLK1 )** | | | Lab File ID: C2823B1R.D | | | Analyzed: 04/05/11 12:27 | | | |
| Phenanthrene-d10 | 125373 | 11.661 | 121484 | 11.66 | 103 | 50 - 200 | 0.0010 | +/-0.50 | |
| Phenanthrene-d10 | 125373 | 11.661 | 121484 | 11.66 | 103 | 50 - 200 | 0.0010 | +/-0.50 | |
| Perylene-d12 | 56904 | 17.722 | 68092 | 17.712 | 84 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 56904 | 17.722 | 68092 | 17.712 | 84 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-020-0204 (1103228-01 )** | | | Lab File ID: 0322801.D | | | Analyzed: 04/05/11 13:23 | | | |
| Phenanthrene-d10 | 124153 | 11.66 | 121484 | 11.66 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 124153 | 11.66 | 121484 | 11.66 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 81749 | 17.722 | 68092 | 17.712 | 120 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 81749 | 17.722 | 68092 | 17.712 | 120 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-021-0204 (1103228-03 )** | | | Lab File ID: 0322803.D | | | Analyzed: 04/05/11 13:51 | | | |
| Phenanthrene-d10 | 125253 | 11.661 | 121484 | 11.66 | 103 | 50 - 200 | 0.0010 | +/-0.50 | |
| Phenanthrene-d10 | 125253 | 11.661 | 121484 | 11.66 | 103 | 50 - 200 | 0.0010 | +/-0.50 | |
| Perylene-d12 | 62468 | 17.722 | 68092 | 17.712 | 92 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 62468 | 17.722 | 68092 | 17.712 | 92 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-022-0204 (1103228-04 )** | | | Lab File ID: 0322804.D | | | Analyzed: 04/05/11 14:19 | | | |
| Phenanthrene-d10 | 128789 | 11.66 | 121484 | 11.66 | 106 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 128789 | 11.66 | 121484 | 11.66 | 106 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 65964 | 17.721 | 68092 | 17.712 | 97 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 65964 | 17.721 | 68092 | 17.712 | 97 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-023-0204 (1103228-05 )** | | | Lab File ID: 0322805.D | | | Analyzed: 04/05/11 14:47 | | | |
| Phenanthrene-d10 | 115135 | 11.66 | 121484 | 11.66 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 115135 | 11.66 | 121484 | 11.66 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 53355 | 17.722 | 68092 | 17.712 | 78 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 53355 | 17.722 | 68092 | 17.712 | 78 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-024-0204 (1103228-06 )** | | | Lab File ID: 0322806.D | | | Analyzed: 04/05/11 15:16 | | | |
| Phenanthrene-d10 | 125909 | 11.66 | 121484 | 11.66 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 125909 | 11.66 | 121484 | 11.66 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 66127 | 17.721 | 68092 | 17.712 | 97 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 66127 | 17.721 | 68092 | 17.712 | 97 | 50 - 200 | 0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-025-0204 (1103228-07 )** | | | Lab File ID: 0322807.D | | | Analyzed: 04/05/11 15:44 | | | |
| Phenanthrene-d10 | 117031 | 11.66 | 121484 | 11.66 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 117031 | 11.66 | 121484 | 11.66 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 55471 | 17.722 | 68092 | 17.712 | 81 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 55471 | 17.722 | 68092 | 17.712 | 81 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-026-0204 (1103228-08 )** | | | Lab File ID: 0322808.D | | | Analyzed: 04/05/11 16:12 | | | |
| Phenanthrene-d10 | 118136 | 11.66 | 121484 | 11.66 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 118136 | 11.66 | 121484 | 11.66 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 66007 | 17.722 | 68092 | 17.712 | 97 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 66007 | 17.722 | 68092 | 17.712 | 97 | 50 - 200 | 0.0100 | +/-0.50 | |
| **Matrix Spike (1D04013-MS2 )** | | | Lab File ID: 0322801M.D | | | Analyzed: 04/05/11 20:48 | | | |
| Phenanthrene-d10 | 136944 | 11.66 | 121484 | 11.66 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 136944 | 11.66 | 121484 | 11.66 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 71139 | 17.712 | 68092 | 17.712 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 71139 | 17.712 | 68092 | 17.712 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike Dup (1D04013-MSD2 )** | | | Lab File ID: 0322801S.D | | | Analyzed: 04/05/11 21:16 | | | |
| Phenanthrene-d10 | 137148 | 11.66 | 121484 | 11.66 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| Phenanthrene-d10 | 137148 | 11.66 | 121484 | 11.66 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 77200 | 17.712 | 68092 | 17.712 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 77200 | 17.712 | 68092 | 17.712 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |

# Data for FLPRO Forms

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| EQUIP BLANK 01 | 03/23/11 07:20 | 03/25/11 08:30 | 03/29/11 13:53 | 6.31 | 7.00 | 03/30/11 17:59 | 1.17 | 40.00 | |
| 05-SS-013-0204 | 03/24/11 07:55 | 03/25/11 08:30 | 03/29/11 17:00 | 5.42 | 14.00 | 03/31/11 08:46 | 1.66 | 40.00 | |
| 05-SS-013-0204-D | 03/24/11 07:55 | 03/25/11 08:30 | 03/29/11 17:00 | 5.42 | 14.00 | 03/31/11 09:28 | 1.69 | 40.00 | |
| 05-SS-014-0204 | 03/24/11 08:35 | 03/25/11 08:30 | 03/29/11 17:00 | 5.39 | 14.00 | 03/31/11 10:10 | 1.72 | 40.00 | |
| 05-MW-014 | 03/24/11 09:15 | 03/25/11 08:30 | 03/29/11 13:53 | 5.23 | 7.00 | 03/30/11 18:41 | 1.20 | 40.00 | |
| 05-SS-015-0204 | 03/24/11 10:05 | 03/25/11 08:30 | 03/29/11 17:00 | 5.33 | 14.00 | 03/31/11 10:52 | 1.74 | 40.00 | |
| 05-SS-016-0204 | 03/24/11 10:45 | 03/25/11 08:30 | 03/29/11 17:00 | 5.30 | 14.00 | 03/31/11 11:34 | 1.77 | 40.00 | |
| 05-SS-017-0204 | 03/24/11 11:20 | 03/25/11 08:30 | 03/29/11 17:00 | 5.28 | 14.00 | 03/31/11 12:16 | 1.80 | 40.00 | |
| 05-SS-018-1520 | 03/24/11 12:35 | 03/25/11 08:30 | 03/29/11 17:00 | 5.23 | 14.00 | 03/31/11 12:59 | 1.83 | 40.00 | |
| 05-SS-019-0204 | 03/24/11 13:30 | 03/25/11 08:30 | 04/06/11 11:00 | 12.94 | 14.00 | 04/07/11 17:49 | 1.28 | 40.00 | |
| 05-SS-020-0204 | 03/25/11 11:05 | 03/26/11 11:30 | 04/06/11 11:00 | 12.04 | 14.00 | 04/07/11 18:31 | 1.31 | 40.00 | |
| 05-SS-021-0204 | 03/25/11 11:57 | 03/26/11 11:30 | 04/06/11 11:00 | 12.00 | 14.00 | 04/07/11 20:38 | 1.40 | 40.00 | |
| 05-SS-022-0204 | 03/25/11 13:55 | 03/26/11 11:30 | 04/06/11 11:00 | 11.92 | 14.00 | 04/07/11 21:21 | 1.43 | 40.00 | |
| 05-SS-023-0204 | 03/25/11 14:40 | 03/26/11 11:30 | 04/06/11 11:00 | 11.89 | 14.00 | 04/07/11 22:03 | 1.46 | 40.00 | |
| 05-SS-024-0204 | 03/25/11 15:15 | 03/26/11 11:30 | 04/06/11 11:00 | 11.86 | 14.00 | 04/07/11 22:46 | 1.49 | 40.00 | |
| 05-SS-025-0204 | 03/25/11 15:45 | 03/26/11 11:30 | 04/06/11 11:00 | 11.84 | 14.00 | 04/07/11 23:28 | 1.52 | 40.00 | |
| 05-SS-026-0204 | 03/25/11 16:20 | 03/26/11 11:30 | 04/06/11 11:00 | 11.82 | 14.00 | 04/08/11 00:10 | 1.55 | 40.00 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| Cal Standard | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| Cal Standard | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| Cal Standard | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| Cal Standard | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| Cal Standard | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |
| Initial Cal Check | 1B05902-ICV1 | 002F0201.D | 02/27/11 14:40 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| 11B0727 | FLPRO CAL5 850ppm | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| 11B0726 | FLPRO CAL4 2550ppm | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| 11B0725 | FLPRO CAL3 4250ppm | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| 11B0724 | FLPRO CAL2 5950ppm | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| 11B0723 | FLPRO CAL1 8500ppm | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1059001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 2/25/11 12:08 2/25/11 15:39 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |

# INITIAL CALIBRATION DATA

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1059001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 2/25/11 12:08 2/25/11 15:39 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF |
| Petroleum Range Organics | 85 | 1001.176 | 850 | 1377.509 | 2550 | 1446.599 | 4250 | 1488.03 | 5950 | 1412.965 | 8500 | 1418.286 |
| 2-Fluorobiphenyl | 5 | 1558.6 | 10 | 1409.6 | 15 | 1829.333 | 25 | 2032.88 | 35 | 2127.686 | 50 | 2181.72 |
| o-Terphenyl | 5 | 2387.8 | 10 | 2409.2 | 15 | 2548.533 | 25 | 2526 | 35 | 2565.572 | 50 | 2515.5 |
| Petroleum Range Organics | 85 | 1001.176 | 850 | 1377.509 | 2550 | 1446.599 | 4250 | 1488.03 | 5950 | 1412.965 | 8500 | 1418.286 |
| 2-Fluorobiphenyl | 5 | 1558.6 | 10 | 1409.6 | 15 | 1829.333 | 25 | 2032.88 | 35 | 2127.686 | 50 | 2181.72 |
| o-Terphenyl | 5 | 2387.8 | 10 | 2409.2 | 15 | 2548.533 | 25 | 2526 | 35 | 2565.572 | 50 | 2515.5 |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1B05902 | Injection Date: | 02/27/11 |
| Lab Sample ID: | 1B05902-ICV1 | Injection Time: | 14:40 |

| COMPOUND | TYPE | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4130 | 1357.428 | 1401.388 | | 3.2 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C09042 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1C09042-CCV1 | 002F0201.D | 03/30/11 12:57 |
| Blank | 1C28022-BLK1 | 003F0301.D | 03/30/11 13:46 |
| LCS | 1C28022-BS1 | 004F0401.D | 03/30/11 14:28 |
| EQUIP BLANK 01 | 1103220-01 | 009F0901.D | 03/30/11 17:59 |
| 05-MW-014 | 1103220-06 | 010F1001.D | 03/30/11 18:41 |
| Calibration Check | 1C09042-CCV2 | 011F1101.D | 03/30/11 19:23 |
| Blank | 1C25006-BLK1 | 012F1201.D | 03/30/11 20:05 |
| LCS | 1C25006-BS1 | 013F1301.D | 03/30/11 20:47 |
| Calibration Check | 1C09042-CCV3 | 026F2601.D | 03/31/11 05:57 |
| 05-SS-013-0204 | 1103220-02 | 030F3001.D | 03/31/11 08:46 |
| 05-SS-013-0204-D | 1103220-04 | 031F3101.D | 03/31/11 09:28 |
| 05-SS-014-0204 | 1103220-05 | 032F3201.D | 03/31/11 10:10 |
| 05-SS-015-0204 | 1103220-07 | 033F3301.D | 03/31/11 10:52 |
| 05-SS-016-0204 | 1103220-08 | 034F3401.D | 03/31/11 11:34 |
| 05-SS-017-0204 | 1103220-09 | 035F3501.D | 03/31/11 12:16 |
| 05-SS-018-1520 | 1103220-10 | 036F3601.D | 03/31/11 12:59 |
| Calibration Check | 1C09042-CCV4 | 037F3701.D | 03/31/11 13:41 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1C09042 | Injection Date: | 03/30/11 |
| Lab Sample ID: | 1C09042-CCV1 | Injection Time: | 12:57 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4382 | 1357.428 | 1399.69 | | 3.1 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 28.34 | 1856.637 | 2104.52 | | 13.4 | 25 |
| o-Terphenyl | A | 25.00 | 25.11 | 2492.101 | 2502.68 | | 0.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 011F1101.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1C09042 | Injection Date: | 03/30/11 |
| Lab Sample ID: | 1C09042-CCV2 | Injection Time: | 19:23 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4282 | 1357.428 | 1367.658 | | 0.8 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 28.50 | 1856.637 | 2116.88 | | 14.0 | 25 |
| o-Terphenyl | A | 25.00 | 24.49 | 2492.101 | 2441.72 | | -2.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 026F2601.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1C09042 | Injection Date: | 03/31/11 |
| Lab Sample ID: | 1C09042-CCV3 | Injection Time: | 05:57 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4427 | 1357.428 | 1414.041 | | 4.2 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 29.05 | 1856.637 | 2157.52 | | 16.2 | 25 |
| o-Terphenyl | A | 25.00 | 25.73 | 2492.101 | 2564.84 | | 2.9 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 037F3701.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1C09042 | Injection Date: | 03/31/11 |
| Lab Sample ID: | 1C09042-CCV4 | Injection Time: | 13:41 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4415 | 1357.428 | 1410.123 | | 3.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 29.72 | 1856.637 | 2207.16 | | 18.9 | 25 |
| o-Terphenyl | A | 25.00 | 26.52 | 2492.101 | 2643.36 | | 6.1 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09806 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D09806-CCV1 | 013F1301.D | 04/07/11 15:34 |
| Blank | 1D04021-BLK1 | 014F1401.D | 04/07/11 16:24 |
| LCS | 1D04021-BS1 | 015F1501.D | 04/07/11 17:06 |
| 05-SS-019-0204 | 1103220-11 | 016F1601.D | 04/07/11 17:49 |
| 05-SS-020-0204 | 1103228-01 | 017F1701.D | 04/07/11 18:31 |
| 05-SS-020-0204 | 1D04021-MS1 | 018F1801.D | 04/07/11 19:14 |
| 05-SS-020-0204 | 1D04021-MSD1 | 019F1901.D | 04/07/11 19:56 |
| 05-SS-021-0204 | 1103228-03 | 020F2001.D | 04/07/11 20:38 |
| 05-SS-022-0204 | 1103228-04 | 021F2101.D | 04/07/11 21:21 |
| 05-SS-023-0204 | 1103228-05 | 022F2201.D | 04/07/11 22:03 |
| 05-SS-024-0204 | 1103228-06 | 023F2301.D | 04/07/11 22:46 |
| 05-SS-025-0204 | 1103228-07 | 024F2401.D | 04/07/11 23:28 |
| 05-SS-026-0204 | 1103228-08 | 025F2501.D | 04/08/11 00:10 |
| Calibration Check | 1D09806-CCV2 | 028F2801.D | 04/08/11 02:17 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 013F1301.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09806 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09806-CCV1 | Injection Time: | 15:34 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4030 | 1357.428 | 1287.28 | | -5.2 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.72 | 1856.637 | 1984.32 | | 6.9 | 25 |
| o-Terphenyl | A | 25.00 | 22.99 | 2492.101 | 2292.04 | | -8.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 028F2801.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09806 | Injection Date: | 04/08/11 |
| Lab Sample ID: | 1D09806-CCV2 | Injection Time: | 02:17 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3839 | 1357.428 | 1226.254 | | -9.7 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.34 | 1856.637 | 1955.92 | | 5.3 | 25 |
| o-Terphenyl | A | 25.00 | 22.62 | 2492.101 | 2255.36 | | -9.5 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C25006 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-013-0204 | 1103220-02 | 03/29/11 17:00 | 15.40 | 2.00 |
| 05-SS-013-0204-D | 1103220-04 | 03/29/11 17:00 | 15.50 | 2.00 |
| 05-SS-014-0204 | 1103220-05 | 03/29/11 17:00 | 15.40 | 2.00 |
| 05-SS-015-0204 | 1103220-07 | 03/29/11 17:00 | 15.30 | 2.00 |
| 05-SS-016-0204 | 1103220-08 | 03/29/11 17:00 | 15.50 | 2.00 |
| 05-SS-017-0204 | 1103220-09 | 03/29/11 17:00 | 15.60 | 2.00 |
| 05-SS-018-1520 | 1103220-10 | 03/29/11 17:00 | 15.20 | 2.00 |
| Blank | 1C25006-BLK1 | 03/29/11 17:00 | 15.00 | 2.00 |
| LCS | 1C25006-BS1 | 03/29/11 17:00 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C25006-BLK1 | File ID: | 012F1201.D |
| Sampled: | | Prepared: | | Analyzed: | 03/30/11 20:05 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1C25006 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.220 | 96.6 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.742 | 82.2 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1C25006 | Laboratory ID: | 1C25006-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 210.4 | 98.6 | 50 - 140 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C28022 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 01 | 1103220-01 | 03/29/11 13:53 | 1,040.00 | 2.00 |
| 05-MW-014 | 1103220-06 | 03/29/11 13:53 | 1,020.00 | 2.00 |
| Blank | 1C28022-BLK1 | 03/29/11 13:53 | 1,000.00 | 2.00 |
| LCS | 1C28022-BS1 | 03/29/11 13:53 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C28022-BLK1 | File ID: | 003F0301.D |
| Sampled: | | Prepared: | | Analyzed: | 03/30/11 13:46 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1C28022 Sequence: 1C09042 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.05395 | 108 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.04129 | 82.6 | 82 - 142 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C28022 | Laboratory ID: | 1C28022-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 2 mL |

| ANALYTE | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| .Petroleum Range Organics | 3.200 | 3.560 | 111 | 55 - 118 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D04021 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-019-0204 | 1103220-11 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-020-0204 | 1103228-01 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-021-0204 | 1103228-03 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-022-0204 | 1103228-04 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-023-0204 | 1103228-05 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-024-0204 | 1103228-06 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-025-0204 | 1103228-07 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-026-0204 | 1103228-08 | 04/06/11 11:00 | 15.00 | 2.00 |
| Blank | 1D04021-BLK1 | 04/06/11 11:00 | 15.00 | 2.00 |
| LCS | 1D04021-BS1 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-020-0204 | 1D04021-MS1 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-020-0204 | 1D04021-MSD1 | 04/06/11 11:00 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_002 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D04021-BLK1 | File ID: | 014F1401.D |
| Sampled: | | Prepared: | | Analyzed: | 04/07/11 16:24 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg wet) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.764 | 82.9 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.417 | 72.5 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D04021 | Laboratory ID: | 1D04021-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 203.0 | 95.2 | 50 - 140 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## FLPRO

**05-SS-020-0204**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D04021

% Solids: 88.45

Source Sample Name: **1103228-01**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 241.2 | 17.98 | 231.7 | 88.6 | | 50 - 140 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 241.2 | 264.3 | 102 | 13.1 | | 40 | 50 - 140 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C09042 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1C09042-CCV1 ) mg/L** | | | | Lab File ID: 002F0201.D | | Analyzed: 03/30/11 12:57 | | |
| 2-Fluorobiphenyl | 25.00 | 113 | 75 - 125 | 10.86 | 10.86 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 100 | 75 - 125 | 16.443 | 16.443 | 0.0000 | +/-0.050 | |
| **Blank (1C28022-BLK1 ) mg/L** | | | | Lab File ID: 003F0301.D | | Analyzed: 03/30/11 13:46 | | |
| 2-Fluorobiphenyl | 0.05000 | 108 | 50 - 150 | 10.866 | 10.86 | 0.0060 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 82.6 | 82 - 142 | 16.45 | 16.443 | 0.0070 | +/-0.050 | |
| **LCS (1C28022-BS1 ) mg/L** | | | | Lab File ID: 004F0401.D | | Analyzed: 03/30/11 14:28 | | |
| 2-Fluorobiphenyl | 0.05000 | 116 | 50 - 150 | 10.85 | 10.86 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 106 | 82 - 142 | 16.433 | 16.443 | -0.0100 | +/-0.050 | |
| **EQUIP BLANK 01 (1103220-01 ) mg/L** | | | | Lab File ID: 009F0901.D | | Analyzed: 03/30/11 17:59 | | |
| 2-Fluorobiphenyl | 0.04808 | 111 | 50 - 150 | 10.856 | 10.86 | -0.0040 | +/-0.050 | |
| o-Terphenyl | 0.04808 | 90.0 | 82 - 142 | 16.44 | 16.443 | -0.0030 | +/-0.050 | |
| **05-MW-014 (1103220-06 ) mg/L** | | | | Lab File ID: 010F1001.D | | Analyzed: 03/30/11 18:41 | | |
| 2-Fluorobiphenyl | 0.04902 | 121 | 50 - 150 | 10.846 | 10.86 | -0.0140 | +/-0.050 | |
| o-Terphenyl | 0.04902 | 94.5 | 82 - 142 | 16.436 | 16.443 | -0.0070 | +/-0.050 | |
| **Calibration Check (1C09042-CCV2 ) mg/L** | | | | Lab File ID: 011F1101.D | | Analyzed: 03/30/11 19:23 | | |
| 2-Fluorobiphenyl | 25.00 | 114 | 75 - 125 | 10.846 | 10.86 | -0.0140 | +/-0.050 | |
| o-Terphenyl | 25.00 | 98.0 | 75 - 125 | 16.433 | 16.443 | -0.0100 | +/-0.050 | |
| **Blank (1C25006-BLK1 ) mg/Kg wet** | | | | Lab File ID: 012F1201.D | | Analyzed: 03/30/11 20:05 | | |
| 2-Fluorobiphenyl | 3.333 | 96.6 | 50 - 150 | 10.873 | 10.86 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 3.333 | 82.2 | 35 - 140 | 16.443 | 16.443 | 0.0000 | +/-0.050 | |
| **LCS (1C25006-BS1 ) mg/Kg wet** | | | | Lab File ID: 013F1301.D | | Analyzed: 03/30/11 20:47 | | |
| 2-Fluorobiphenyl | 3.333 | 122 | 50 - 150 | 10.853 | 10.86 | -0.0070 | +/-0.050 | |
| o-Terphenyl | 3.333 | 102 | 35 - 140 | 16.43 | 16.443 | -0.0130 | +/-0.050 | |
| **Calibration Check (1C09042-CCV3 ) mg/L** | | | | Lab File ID: 026F2601.D | | Analyzed: 03/31/11 05:57 | | |
| 2-Fluorobiphenyl | 25.00 | 116 | 75 - 125 | 10.833 | 10.86 | -0.0270 | +/-0.050 | |
| o-Terphenyl | 25.00 | 103 | 75 - 125 | 16.42 | 16.443 | -0.0230 | +/-0.050 | |
| **05-SS-013-0204 (1103220-02 ) mg/Kg dry** | | | | Lab File ID: 030F3001.D | | Analyzed: 03/31/11 08:46 | | |
| 2-Fluorobiphenyl | 3.488 | 99.0 | 50 - 150 | 10.856 | 10.86 | -0.0040 | +/-0.050 | |
| o-Terphenyl | 3.488 | 101 | 35 - 140 | 16.426 | 16.443 | -0.0170 | +/-0.050 | |
| **05-SS-013-0204-D (1103220-04 ) mg/Kg dry** | | | | Lab File ID: 031F3101.D | | Analyzed: 03/31/11 09:28 | | |
| 2-Fluorobiphenyl | 3.820 | 103 | 50 - 150 | 10.85 | 10.86 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 3.820 | 95.3 | 35 - 140 | 16.426 | 16.443 | -0.0170 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C09042 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-014-0204 (1103220-05 ) mg/Kg dry** | | | | Lab File ID: 032F3201.D | | Analyzed: 03/31/11 10:10 | | |
| 2-Fluorobiphenyl | 3.452 | 101 | 50 - 150 | 10.853 | 10.86 | -0.0070 | +/-0.050 | |
| o-Terphenyl | 3.452 | 97.1 | 35 - 140 | 16.426 | 16.443 | -0.0170 | +/-0.050 | |
| **05-SS-015-0204 (1103220-07 ) mg/Kg dry** | | | | Lab File ID: 033F3301.D | | Analyzed: 03/31/11 10:52 | | |
| 2-Fluorobiphenyl | 3.841 | 102 | 50 - 150 | 10.853 | 10.86 | -0.0070 | +/-0.050 | |
| o-Terphenyl | 3.841 | 91.4 | 35 - 140 | 16.43 | 16.443 | -0.0130 | +/-0.050 | |
| **05-SS-016-0204 (1103220-08 ) mg/Kg dry** | | | | Lab File ID: 034F3401.D | | Analyzed: 03/31/11 11:34 | | |
| 2-Fluorobiphenyl | 3.463 | 113 | 50 - 150 | 10.843 | 10.86 | -0.0170 | +/-0.050 | |
| o-Terphenyl | 3.463 | 99.2 | 35 - 140 | 16.423 | 16.443 | -0.0200 | +/-0.050 | |
| **05-SS-017-0204 (1103220-09 ) mg/Kg dry** | | | | Lab File ID: 035F3501.D | | Analyzed: 03/31/11 12:16 | | |
| 2-Fluorobiphenyl | 3.442 | 118 | 50 - 150 | 10.836 | 10.86 | -0.0240 | +/-0.050 | |
| o-Terphenyl | 3.442 | 107 | 35 - 140 | 16.423 | 16.443 | -0.0200 | +/-0.050 | |
| **05-SS-018-1520 (1103220-10 ) mg/Kg dry** | | | | Lab File ID: 036F3601.D | | Analyzed: 03/31/11 12:59 | | |
| 2-Fluorobiphenyl | 4.119 | 106 | 50 - 150 | 10.843 | 10.86 | -0.0170 | +/-0.050 | |
| o-Terphenyl | 4.119 | 93.6 | 35 - 140 | 16.423 | 16.443 | -0.0200 | +/-0.050 | |
| **Calibration Check (1C09042-CCV4 ) mg/L** | | | | Lab File ID: 037F3701.D | | Analyzed: 03/31/11 13:41 | | |
| 2-Fluorobiphenyl | 25.00 | 119 | 75 - 125 | 10.833 | 10.86 | -0.0270 | +/-0.050 | |
| o-Terphenyl | 25.00 | 106 | 75 - 125 | 16.423 | 16.443 | -0.0200 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09806 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09806-CCV1 ) mg/L** | | | | Lab File ID: 013F1301.D | | Analyzed: 04/07/11 15:34 | | |
| 2-Fluorobiphenyl | 25.00 | 107 | 75 - 125 | 10.853 | 10.853 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 92.0 | 75 - 125 | 16.416 | 16.416 | 0.0000 | +/-0.050 | |
| **Blank (1D04021-BLK1 ) mg/Kg wet** | | | | Lab File ID: 014F1401.D | | Analyzed: 04/07/11 16:24 | | |
| 2-Fluorobiphenyl | 3.333 | 82.9 | 50 - 150 | 10.886 | 10.853 | 0.0330 | +/-0.050 | |
| o-Terphenyl | 3.333 | 72.5 | 35 - 140 | 16.44 | 16.416 | 0.0240 | +/-0.050 | |
| **LCS (1D04021-BS1 ) mg/Kg wet** | | | | Lab File ID: 015F1501.D | | Analyzed: 04/07/11 17:06 | | |
| 2-Fluorobiphenyl | 3.333 | 102 | 50 - 150 | 10.863 | 10.853 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.333 | 86.6 | 35 - 140 | 16.416 | 16.416 | 0.0000 | +/-0.050 | |
| **05-SS-019-0204 (1103220-11 ) mg/Kg dry** | | | | Lab File ID: 016F1601.D | | Analyzed: 04/07/11 17:49 | | |
| 2-Fluorobiphenyl | 3.514 | 96.0 | 50 - 150 | 10.866 | 10.853 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 3.514 | 89.2 | 35 - 140 | 16.426 | 16.416 | 0.0100 | +/-0.050 | |
| **05-SS-020-0204 (1103228-01 ) mg/Kg dry** | | | | Lab File ID: 017F1701.D | | Analyzed: 04/07/11 18:31 | | |
| 2-Fluorobiphenyl | 3.769 | 97.1 | 50 - 150 | 10.87 | 10.853 | 0.0170 | +/-0.050 | |
| o-Terphenyl | 3.769 | 88.9 | 35 - 140 | 16.426 | 16.416 | 0.0100 | +/-0.050 | |
| **Matrix Spike (1D04021-MS1 ) mg/Kg dry** | | | | Lab File ID: 018F1801.D | | Analyzed: 04/07/11 19:14 | | |
| 2-Fluorobiphenyl | 3.769 | 102 | 50 - 150 | 10.86 | 10.853 | 0.0070 | +/-0.050 | |
| o-Terphenyl | 3.769 | 88.0 | 35 - 140 | 16.416 | 16.416 | 0.0000 | +/-0.050 | |
| **Matrix Spike Dup (1D04021-MSD1 ) mg/Kg dry** | | | | Lab File ID: 019F1901.D | | Analyzed: 04/07/11 19:56 | | |
| 2-Fluorobiphenyl | 3.769 | 116 | 50 - 150 | 10.856 | 10.853 | 0.0030 | +/-0.050 | |
| o-Terphenyl | 3.769 | 97.7 | 35 - 140 | 16.416 | 16.416 | 0.0000 | +/-0.050 | |
| **05-SS-021-0204 (1103228-03 ) mg/Kg dry** | | | | Lab File ID: 020F2001.D | | Analyzed: 04/07/11 20:38 | | |
| 2-Fluorobiphenyl | 3.595 | 105 | 50 - 150 | 10.86 | 10.853 | 0.0070 | +/-0.050 | |
| o-Terphenyl | 3.595 | 92.5 | 35 - 140 | 16.43 | 16.416 | 0.0140 | +/-0.050 | |
| **05-SS-022-0204 (1103228-04 ) mg/Kg dry** | | | | Lab File ID: 021F2101.D | | Analyzed: 04/07/11 21:21 | | |
| 2-Fluorobiphenyl | 4.001 | 91.5 | 50 - 150 | 10.873 | 10.853 | 0.0200 | +/-0.050 | |
| o-Terphenyl | 4.001 | 84.2 | 35 - 140 | 16.426 | 16.416 | 0.0100 | +/-0.050 | |
| **05-SS-023-0204 (1103228-05 ) mg/Kg dry** | | | | Lab File ID: 022F2201.D | | Analyzed: 04/07/11 22:03 | | |
| 2-Fluorobiphenyl | 3.718 | 82.5 | 50 - 150 | 10.883 | 10.853 | 0.0300 | +/-0.050 | |
| o-Terphenyl | 3.718 | 82.0 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |
| **05-SS-024-0204 (1103228-06 ) mg/Kg dry** | | | | Lab File ID: 023F2301.D | | Analyzed: 04/07/11 22:46 | | |
| 2-Fluorobiphenyl | 3.587 | 91.7 | 50 - 150 | 10.866 | 10.853 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 3.587 | 91.9 | 35 - 140 | 16.43 | 16.416 | 0.0140 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09806 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-025-0204 (1103228-07 ) mg/Kg dry** | | | | Lab File ID: 024F2401.D | | Analyzed: 04/07/11 23:28 | | |
| 2-Fluorobiphenyl | 3.613 | 75.5 | 50 - 150 | 10.893 | 10.853 | 0.0400 | +/-0.050 | |
| o-Terphenyl | 3.613 | 74.2 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |
| **05-SS-026-0204 (1103228-08 ) mg/Kg dry** | | | | Lab File ID: 025F2501.D | | Analyzed: 04/08/11 00:10 | | |
| 2-Fluorobiphenyl | 3.639 | 83.2 | 50 - 150 | 10.88 | 10.853 | 0.0270 | +/-0.050 | |
| o-Terphenyl | 3.639 | 76.6 | 35 - 140 | 16.426 | 16.416 | 0.0100 | +/-0.050 | |
| **Calibration Check (1D09806-CCV2 ) mg/L** | | | | Lab File ID: 028F2801.D | | Analyzed: 04/08/11 02:17 | | |
| 2-Fluorobiphenyl | 25.00 | 105 | 75 - 125 | 10.86 | 10.853 | 0.0070 | +/-0.050 | |
| o-Terphenyl | 25.00 | 90.5 | 75 - 125 | 16.42 | 16.416 | 0.0040 | +/-0.050 | |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_002

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid **Instrument:** GL-GCFID2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |
| | 0.170 | 0.680 | mg/L | FLPRO |
| | 0.170 | 0.510 | mg/Kg | FLPRO |

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **May 17, 2011** |
| **FROM:** | **MEGAN CARSON** | **COPIES:** | **DV FILE** |

**SUBJECT:** **INORGANIC DATA VALIDATION – LEAD**
**CTO JM26, SAUFLEY FIELD**
**SAMPLE DELIVERY GROUP (SDG) – CTOJM26_002**

**SAMPLES:** 1/Water/
05-MW-014

Overview

The sample set for Saufley Field, CTO JM26, SDG CTOJM26_002, consists of one (1) water environmental sample. This SDG contained no field duplicate pairs.

The sample was analyzed for lead. The samples were collected by Tetra Tech NUS on March 24th, 2011 and analyzed by Empirical Laboratories LLC under Naval Facilities Engineering Service Center (NFESC) Quality Assurance / Quality Control (QA/QC) criteria. Metals analyses were conducted using method 6010C.

These data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibrations
* • Laboratory Method / Preparation Blank Analyses
* • Detection Limits

* - All quality control criteria were met for this parameter.

**METALS:**

All sample results were within quality control limits. All quality control criteria parameters reviewed above satisfied acceptance criteria.

Notes:

Positive results less the reporting limit but greater than the method detection limit were qualified as estimated (J).

Sample 05-MW-014 was analyzed at a 5X dilution.

Executive Summary

**Laboratory Performance:** None.

**Other Factors Affecting Data Quality:** None.

The data for these analyses were reviewed with reference to "National Functional Guidelines for Inorganic Review", October 2004 and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories", April, 2009.

The text of this report has been formulated to address only those problem areas affecting data quality.

Megan Carson

Tetra Tech NUS
Megan Carson
Chemist/Data Validator

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

**Data Validation Qualifier Codes:**

| | | |
|---|---|---|
| A | = | Lab Blank Contamination |
| B | = | Field Blank Contamination |
| C | = | Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.) |
| C01 | = | GC/MS Tuning Noncompliance |
| D | = | MS/MSD Recovery Noncompliance |
| E | = | LCS/LCSD Recovery Noncompliance |
| F | = | Lab Duplicate Imprecision |
| G | = | Field Duplicate Imprecision |
| H | = | Holding Time Exceedance |
| I | = | ICP Serial Dilution Noncompliance |
| J | = | GFAA PDS - GFAA MSA's $r < 0.995$ |
| K | = | ICP Interference - includes ICS % R Noncompliance |
| L | = | Instrument Calibration Range Exceedance |
| M | = | Sample Preservation Noncompliance |
| N | = | Internal Standard Noncompliance |
| N01 | = | Internal Standard Recovery Noncompliance Dioxins |
| N02 | = | Recovery Standard Noncompliance Dioxins |
| N03 | = | Clean-up Standard Noncompliance Dioxins |
| O | = | Poor Instrument Performance (e.g. base-line drifting) |
| P | = | Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics) |
| Q | = | Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.) |
| R | = | Surrogates Recovery Noncompliance |
| S | = | Pesticide/PCB Resolution |
| T | = | % Breakdown Noncompliance for DDT and Endrin |
| U | = | % Difference between columns/detectors >25% for positive results determined via GC/HPLC |
| V | = | Non-linear calibrations; correlation coefficient $r < 0.995$ |
| W | = | EMPC result |
| X | = | Signal to noise response drop |
| Y | = | Percent solids <30% |
| Z | = | Uncertainty at 2 sigma deviation is greater than sample activity |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-014 | | |
| **SDG: CTOJM26_002** | LAB_ID | 1103220-06 | | |
| **FRACTION: M** | SAMP_DATE | 3/24/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| LEAD | | 538 | | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-MW-014**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103220-06 |
| Sampled: | 03/24/11 09:15 | Received: | 03/25/11 08:30 |
| % Solids: | 0.00 | | |

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 538 | 15.0 | 30.0 | 30.0 | 5 | D | SW6010C | 1D06001 | 04/07/11 12:11 |

# APPENDIX C

## SUPPORT DOCUMENTATION

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2775 | PAGE 1 OF 1

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Soupley Field | Geoff Pope | 850 385 9899 | Empirical, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M Brock | | M. Brock | 850-294-2830 | 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 0684 5094 5769 | | Nashville TN 37228 |

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

| | DATE YEAR 2011 | 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 | PAH H2O | TRPH H2O | ~~BTEX~~ VOC H2O | EDB H2O | Total Pb H2O | PAH (soil) | TRPH (soil) | BTEX, MTBE (soil) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONTAINER TYPE PLASTIC (P) or GLASS (G) | | | | | | | | | | AG | AG | CG | CG | P | AG | AG | CG | |
| PRESERVATIVE USED | | | | | | | | | | none ice | HCL | H2O HCL | HCL | HNO3 | none ice | none ice | H2O Meth | |
| 01 | 3/23 | 0720 | Equip. Blank 01 | — | — | — | QC | G | 4 | ✓ | ✓ | — | — | — | — | — | — | 1103220-01 1mt 300 |
| -02 | 3/24 | 0755 | 05-SS-013-0204 | SB013 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -02 |
| -03 | — | — | Trip Blank 9490 | — | — | — | QC | G | 2 | — | — | ✓ | — | — | — | — | ✓ | -03 2JHy |
| -04 | 3/24 | 0755 | 05-SS-013-0204-D | SB013 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -04 Sec-01 |
| -05 | 3/24 | 0835 | 05-SS-014-0204 | SB014 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -05 |
| -06 | 3/24 | 0915 | 05-MW-014 | SB014 | tubing @ 50' | | GW | G | 9 | ✓ | ✓ | ✓ | ✓ | ✓ | — | — | — | -06 2HH+2HHy+1CUT+4JHy |
| -07 | 3/24 | 1005 | 05-SS-015-0204 | SB015 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -07 Sec-01 |
| -08 | 3/24 | 1045 | 05-SS-016-0204 | SB016 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -08 |
| -09 | 3/24 | 1120 | 05-SS-017-0204 | SB017 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -09 |
| -10 | 3/24 | 1235 | 05-SS-018-1520 | SB018 | 15 | 20 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -10 |
| -11 | 3/24 | 1330 | 05-SS-019-0204 | SB019 | 2 | 4 | SO | C | 4 | — | — | — | — | — | ✓ | ✓ | ✓ | -11 |
| | | | | | | | | | | | | | | | | | | Temp Blank in cooler |

| 1. RELINQUISHED BY | DATE | TIME | 1. RECEIVED BY | DATE | TIME |
|---|---|---|---|---|---|
| M Brock | 3.24.11 | 1600 | | | |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| | | | | | |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY | DATE | TIME |
| | | | O.T | 3-25-11 | 08:30 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

CTOJM26_002

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TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2776 | PAGE 1 OF 1

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Sautley Field | PROJECT MANAGER Geoff Pope | PHONE NUMBER 850 385 9899 | LABORATORY NAME AND CONTACT: EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) M Brock | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850 294 2830 | ADDRESS 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER 8684 5094 5758 | | CITY, STATE Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG 9G/AG
PRESERVATIVE USED: H2O methanol ice ice

| DATE YEAR 2011 | 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 | BTEX, MTBE | PAHs | TRPH | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -01 3/25 | 1105 | 05-SS-020-0204 | SB020 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | 1M+3JO |
| | 1105 | 05-SS-020-0204MS | SB020 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | |
| | 1105 | 05-SS-020-0204MSD | SB020 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | |
| -02 | — | Trip Blank 9484 | — | — | — | QC | G | 2 | ✓ | – | – | | | | | |
| -03 | 1157 | 05-SS-021-0204 | SB021 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | |
| -04 | 1355 | 05-SS-022-0204 | SB022 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | |
| -05 | 1440 | 05-SS-023-0204 | SB023 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | |
| -06 | 1515 | 05-SS-024-0204 | SB024 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | |
| -07 | 1545 | 05-SS-025-0204 | SB025 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | |
| -08 | 1620 | 05-SS-026-0204 | SB026 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | |
| | | | | | | | | | | | | | | | | temp blank in cooler |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY M Brock | 3.25.11 | 1745 | 1. RECEIVED BY | | |
| 2. RELINQUISHED BY | | | 2. RECEIVED BY | | |
| 3. RELINQUISHED BY | | | 3. RECEIVED BY 2.9°C | 3-26-11 | 11:30 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

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CTOJM26_002

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
Sample 1103220-04 exceeded criteria with a negative bias for 1,4-Dichlorobenzene-d4; however, 1,4-Dichlorobenzene-d4 is not associated to the reported compounds.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8270C:**
The batch spikes associated to batch 1C28023 exceeded relative percent difference criteria for Acenaphthene.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
No anomalies or deviations are noted.

**SW8011:**
No anomalies or deviations are noted.

**SW6010C:**
No anomalies or deviations are noted.

Sample Name: 1103220-06@5X Acquired: 4/7/2011 12:11:12 Type: Unk
Method: DuoEnviroMethodNEW(v2055) Mode: CONC Corr. Factor: 1.000000
User: rburr Custom ID1: Custom ID2: Custom ID3:
Comment: TETRA X2 X5 =X10

| Elem | Ag3280 | Al3961 | As1890 | As1972 | As2003 | B_2496 | Ba2335 |
|---|---|---|---|---|---|---|---|
| Units | ppb | ppb | ppb | ppb | ppb | ppb | ppb |
| Avg | **-.29577** | **65516.** | **93.406** | **88.058** | **98.612** | **16.940** | **232.09** |
| Stddev | .24420 | 225. | 2.392 | 4.389 | 4.950 | .057 | .46 |
| %RSD | 82.563 | .34377 | 2.5606 | 4.9837 | 5.0199 | .33734 | .19962 |
| #1 | -.15585 | 65776. | 90.721 | 82.991 | 92.974 | 16.999 | 231.99 |
| #2 | -.15373 | 65386. | 94.187 | 90.496 | 102.25 | 16.884 | 231.68 |
| #3 | -.57775 | 65386. | 95.309 | 90.686 | 100.62 | 16.936 | 232.59 |

| Elem | Be3130 | Ca3179 | Cd2144 | Co2286 | Cr2677 | Cu2199 | Cu3247 |
|---|---|---|---|---|---|---|---|
| Units | ppb | ppm | ppb | ppb | ppb | ppb | ppb |
| Avg | **1.3634** | **6.5627** | F **-5.2658** | **2.8171** | **499.97** | **117.8** | **123.01** |
| Stddev | .0094 | .0115 | .0858 | .1240 | 2.68 | .9 | .93 |
| %RSD | .68699 | .17583 | 1.6286 | 4.4020 | .53506 | .7496 | .75280 |
| #1 | 1.3540 | 6.5577 | -5.2395 | 2.9442 | 498.04 | 117.7 | 122.39 |
| #2 | 1.3636 | 6.5546 | -5.3617 | 2.8106 | 498.84 | 117.0 | 122.57 |
| #3 | 1.3727 | 6.5759 | -5.1963 | 2.6965 | 503.02 | 118.7 | 124.08 |

| Elem | Fe2611 | K_7664 | Mg2790 | Mn2576 | Mo2020 | Na5895 | Ni2316 |
|---|---|---|---|---|---|---|---|
| Units | ppb | ppm | ppm | ppb | ppb | ppm | ppb |
| Avg | **183320.** | **4.7589** | **3.8921** | **91.634** | **4.8204** | **.33985** | **216.82** |
| Stddev | 228. | .0038 | .0128 | .435 | .2036 | .00060 | 1.52 |
| %RSD | .12444 | .07982 | .32955 | .47470 | 4.2238 | .17544 | .69997 |
| #1 | 183570. | 4.7614 | 3.9065 | 91.918 | 4.5897 | .34033 | 215.17 |
| #2 | 183240. | 4.7545 | 3.8820 | 91.133 | 4.9750 | .33918 | 217.11 |
| #3 | 183140. | 4.7607 | 3.8879 | 91.850 | 4.8965 | .34003 | 218.16 |

| Elem | Pb2203 | Sb2068 | Se1960 | Sn1899 | Sr4215 | Ti3349 | Tl1908 |
|---|---|---|---|---|---|---|---|
| Units | ppb | ppb | ppb | ppb | ppb | ppb | ppb |
| Avg | **53.824** | **-.50906** | **1.0138** | **7.9811** | **104.0** | **79.581** | **-.52972** |
| Stddev | .569 | .39890 | .9817 | .4176 | .2 | .310 | .42134 |
| %RSD | 1.0568 | 78.361 | 96.834 | 5.2321 | .1893 | .39006 | 79.540 |
| #1 | 54.007 | -.06598 | 1.8674 | 8.2124 | 104.2 | 79.466 | -.56866 |
| #2 | 53.187 | -.62157 | -.05893 | 8.2319 | 104.1 | 79.932 | -.09026 |
| #3 | 54.280 | -.83962 | 1.2328 | 7.4991 | 103.8 | 79.344 | -.93024 |

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103220 Number of Coolers: 1 of 2

Client: Tetra Tech Project: Sampley Field

Date/Time Received: 3.25.11 0830 Date cooler(s) opened: 3.25.11

Opened By (print): Reginald Talley (signature): Reginald Talley

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: 5769

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 3.24.11 Seal Initials: MB

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: Initial Value: 1.0 °C Correction Factor: -0.3 °C Final Value: 0.7 °C

Dates samples were logged-in: 3-25-11

9. Initial this form to acknowledge login of sample(s): (Name): [illegible] (Initial): [illegible]
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

If Non-Conformance issues were present, list by sample ID: _____

· pH<2 for metals + FLPRO samples

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103228 Number of Coolers: 2 of 2

Client: Tetra Tech Project: Sampley Field

Date/Time Received: 3.25.11 0830 Date cooler(s) opened: 3.25.11

Opened By (print): Reginald Talley (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: 3425

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 3.24.11 Seal Initials: MB

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: Initial Value: 1.2 °C Correction Factor: -0.3 °C Final Value: 0.9 °C

Dates samples were logged-in: 3-25-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: RT 3.25

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103228 Number of Coolers: 1 of 1

Client: Tetra Tech Project: Surfay Field

Date/Time Received: 3-26-11/11:30 Date cooler(s) opened: 3-26-11

Opened By (print): Chris Donald (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: 5758

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 3-25-11 Seal Initials: MB

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: Initial Value: 3.2 °C Correction Factor: -0.3 °C Final Value: 2.9 °C

Dates samples were logged-in: 3-28-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: _____

# HOLDTIME

**SDG** CTOJM26_002

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| M | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| M | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 04/06/2011 | 04/07/2011 | 13 | 1 | 14 |
| M | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 04/06/2011 | 04/07/2011 | 14 | 1 | 15 |
| EDB | UG/L | 05-MW-005-D | 1103208-04 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| EDB | UG/L | 05-MW-005 | 1103208-03 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| EDB | UG/L | 05-MW-014 | 1103220-06 | NM | 03/24/2011 | 04/06/2011 | 04/06/2011 | 13 | 0 | 13 |
| EDB | UG/L | Equip Blank 01 | 1103208-05 | NM | 03/23/2011 | 04/06/2011 | 04/06/2011 | 14 | 0 | 14 |
| OV | MG/KG | 05-SS-011-0204 | 1103208-12 | NM | 03/23/2011 | 03/28/2011 | 03/28/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-025-0204 | 1103228-07 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-024-0204 | 1103228-06RE1 | NM | 03/25/2011 | 03/30/2011 | 03/30/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-023-0204 | 1103228-05 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-021-0204 | 1103228-03 | NM | 03/25/2011 | 03/29/2011 | 03/29/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-019-0204 | 1103220-11 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-018-1520 | 1103220-10 | NM | 03/24/2011 | 03/29/2011 | 03/29/2011 | 5 | 0 | 5 |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC
**SDG:** CTOJM26_002
**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTO JM26 Saufley
**Matrix:** Water
**Instrument:** ME-ICP

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Lead | 1.50 | 3.00 | ug/L | SW6010C |

# PREPARATION BATCH SUMMARY

## SW6010C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06001 Batch Matrix: Water Preparation: MET_3005A

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-014 | 1103220-06 | 04/06/11 07:37 | 25.00 | 50.00 |
| Blank | 1D06001-BLK1 | 04/06/11 07:37 | 50.00 | 50.00 |
| LCS | 1D06001-BS1 | 04/06/11 07:37 | 50.00 | 50.00 |

# ANALYSIS SEQUENCE SUMMARY
## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_002 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09708 | Instrument: | ME-ICP |
| Calibration: | 1097001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D09708-CAL1 | 040711A-002 | 04/07/11 08:37 |
| Cal Standard | 1D09708-CAL2 | 040711A-003 | 04/07/11 08:42 |
| Cal Standard | 1D09708-CAL3 | 040711A-004 | 04/07/11 08:46 |
| Cal Standard | 1D09708-CAL6 | 040711A-007 | 04/07/11 09:01 |
| Initial Cal Check | 1D09708-ICV1 | 040711B-001 | 04/07/11 09:46 |
| Initial Cal Blank | 1D09708-ICB1 | 040711B-002 | 04/07/11 09:53 |
| Instrument RL Check | 1D09708-CRL1 | 040711B-003 | 04/07/11 09:58 |
| Interference Check A | 1D09708-IFA1 | 040711C-001 | 04/07/11 10:21 |
| Interference Check B | 1D09708-IFB2 | 040711C-004 | 04/07/11 10:40 |
| Calibration Check | 1D09708-CCV1 | 040711C-006 | 04/07/11 10:52 |
| Calibration Blank | 1D09708-CCB1 | 040711C-007 | 04/07/11 10:59 |
| Blank | 1D06001-BLK1 | 040711C-008 | 04/07/11 11:04 |
| LCS | 1D06001-BS1 | 040711C-009 | 04/07/11 11:09 |
| 05-MW-014 | 1103220-06 | 040711C-022 | 04/07/11 12:11 |
| Calibration Check | 1D09708-CCV2 | 040711C-024 | 04/07/11 12:22 |
| Calibration Blank | 1D09708-CCB2 | 040711C-025 | 04/07/11 12:29 |

# INITIAL AND CONTINUING CALIBRATION CHECK

## SW6010C

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Instrument ID: ME-ICP

SDG: CTOJM26_002

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units | Control Limit |
|---|---|---|---|---|---|---|
| 1D09708-ICV1 | Lead | 1000 | 1028 | 103 | ug/L | +/- 10.00% |
| 1D09708-CCV1 | Lead | 1000 | 1036 | 104 | ug/L | +/- 10.00% |
| 1D09708-CCV2 | Lead | 1000 | 968.7 | 96.9 | ug/L | +/- 10.00% |

# CRDL STANDARD

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_002

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| 1D09708-CRL1 | Lead | 3.000 | 3.266 | 109 | ug/L | 80 - 120 |

# BLANKS
## SW6010C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_002
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D09708
Calibration: 1097001

| Lab Sample ID | Analyte | Found | MDL | MRL | Units | C | Method |
|---|---|---|---|---|---|---|---|
| 1D09708-ICB1 | Lead | -0.1227 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB1 | Lead | 0.0633 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D06001-BLK1 | Lead | 0.148 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB2 | Lead | 0.0883 | 1.50 | 3.00 | ug/L | U | SW6010C |

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **APRIL 25, 2011** |
| **FROM:** | **EDWARD SEDLMYER** | **COPIES:** | **DV FILE** |

**SUBJECT:** **INORGANICE AND ORGANIC DATA VALIDATION- LEAD/VOA/PAH/FLORIDA-PRO**
**CTO JM26, SAUFLEY**
**SDG CTOJM26_003**

**SAMPLES:** 3/Aqueous/LEAD/VOC/PAH/FLORIDA-PRO

| | | |
|---|---|---|
| EQUIPMENT BLANK 02 | TRIPBLANK 9488 | TRIPBLANK 9489 |

13/Soil/ VOC/PAH/FLORIDA-PRO

| | | |
|---|---|---|
| 05-SS-027-0204 | 05-SS-028-0204 | 05-SS-030-1520 |
| 05-SS-030-1520-D | 05-SS-031-0204 | 05-SS-032-0204 |
| 05-SS-033-0204 | 05-SS-034-0204 | 05-SS-035-0204 |
| 05-SS-036-0204 | 05-SS-066-0406 | 05-SS-068-0406 |
| 05-SS-069-0406 | | |

OVERVIEW

The sample set for CTO JM26, Saufley, SDG CTOJM26_003 consists of one (1) equipment blank, two (2) trip blanks, and thirteen (13) soil environmental samples. The following field duplicate pair was associated with this SDG: 05-SS-030-1520 / 05-SS-030-1520-D. The samples were analyzed for select volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and Florida-PRO as outlined above. The trip blanks were analyzed for VOCs only.

The samples were collected by TetraTech NUS on March 28, 2011 and analyzed by Empirical Laboratories. All analyses were conducted in accordance with SW-846 Method 8260B, 8270C, 8011, 6010C, and FL-PRO analysis and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
* • GC/MS Tuning
* • Initial and continuing calibration
• Blank results
* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Volatiles

No qualification of the data was necessary.

Semivolatiles

The equipment blank had detections for benzo(a)anthracene (0.208 ug/L) and naphthalene (0.0993 ug/L). No action was taken on this basis.

Florida-PRO

No qualification of the data was necessary.

Lead

No qualification of the data was necessary.

Additional Comments:

Positive results less than the reporting limit (RL) were qualified as estimated "J", due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

**Laboratory Performance Issues:** None.

**Other Factors Affecting Data Quality:** Two PAHs were detected in the equipment blank.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999), National Functional Guidelines for Inorganic Review (October 2004), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS

Edward Sedlmyer
Chemist/Data Validator

Tetra Tech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

**Data Validation Qualifier Codes:**

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

| PROJ_NO: 02748 | NSAMPLE | 05-SS-027-0204 | | | 05-SS-028-0204 | | | 05-SS-030-1520 | | | 05-SS-030-1520-D | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-01RE1 | | | 1103237-02RE1 | | | 1103237-03 | | | 1103237-04 | | |
| FRACTION: OV | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.0 | | | 93.0 | | | 85.0 | | | 87.2 | | |
| | DUP_OF | | | | | | | | | | 05-SS-030-1520 | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.0016 | U | | 0.00157 | U | | 0.00199 | U | | 0.00158 | U | |
| ETHYLBENZENE | | 0.00096 | U | | 0.000944 | U | | 0.0012 | U | | 0.000949 | U | |
| METHYL TERT-BUTYL ETHER | | 0.0016 | U | | 0.00157 | U | | 0.00199 | U | | 0.00158 | U | |
| TOLUENE | | 0.0011 | U | | 0.00108 | U | | 0.00137 | U | | 0.00109 | U | |
| TOTAL XYLENES | | 0.0048 | U | | 0.00472 | U | | 0.00598 | U | | 0.00475 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-031-0204 | | | 05-SS-032-0204 | | | 05-SS-033-0204 | | | 05-SS-034-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-05 | | | 1103237-07 | | | 1103237-08 | | | 1103237-09 | | |
| FRACTION: OV | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 89.2 | | | 90.2 | | | 92.6 | | | 85.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00214 | U | | 0.0016 | U | | 0.00172 | U | | 0.00175 | U | |
| ETHYLBENZENE | | 0.00128 | U | | 0.000958 | U | | 0.00103 | U | | 0.00105 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00214 | U | | 0.0016 | U | | 0.00172 | U | | 0.00175 | U | |
| TOLUENE | | 0.00147 | U | | 0.0011 | U | | 0.00118 | U | | 0.0012 | U | |
| TOTAL XYLENES | | 0.00641 | U | | 0.00479 | U | | 0.00516 | U | | 0.00525 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-035-0204 | | | 05-SS-036-0204 | | | 05-SS-066-0406 | | | 05-SS-068-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-10 | | | 1103237-11 | | | 1103237-12 | | | 1103237-13 | | |
| FRACTION: OV | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 84.1 | | | 84.2 | | | 93.0 | | | 85.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00165 | U | | 0.00167 | U | | 0.00159 | U | | 0.00147 | U | |
| ETHYLBENZENE | | 0.000991 | U | | 0.001 | U | | 0.000955 | U | | 0.000881 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00165 | U | | 0.00167 | U | | 0.00159 | U | | 0.00147 | U | |
| TOLUENE | | 0.00114 | U | | 0.00115 | U | | 0.0011 | U | | 0.00101 | U | |
| TOTAL XYLENES | | 0.00495 | U | | 0.00502 | U | | 0.00478 | U | | 0.00441 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-069-0406 | | |
| **SDG: CTOJM26_003** | LAB_ID | 1103237-14 | | |
| **FRACTION: OV** | SAMP_DATE | 3/28/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | MG/KG | | |
| | PCT_SOLIDS | 93.4 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| BENZENE | | 0.00148 | U | |
| ETHYLBENZENE | | 0.000887 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00148 | U | |
| TOLUENE | | 0.00102 | U | |
| TOTAL XYLENES | | 0.00443 | U | |

| PROJ_NO: 02748 | NSAMPLE | EQUIPMENT BLANK 02 | | | TRIPBLANK 9488 | | | TRIPBLANK 9489 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-15 | | | 1103237-06 | | | 1103237-16 | | |
| FRACTION: OV | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1,2-DIBROMOETHANE | | 0.00812 | U | | | | | | | |
| BENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| ETHYLBENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TOLUENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TOTAL XYLENES | | 0.75 | U | | 0.75 | U | | 0.75 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-027-0204 | | | 05-SS-028-0204 | | | 05-SS-030-1520 | | | 05-SS-030-1520-D | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-01 | | | 1103237-02 | | | 1103237-03 | | | 1103237-04 | | |
| FRACTION: PAH | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.0 | | | 93.0 | | | 85.0 | | | 87.2 | | |
| | DUP_OF | | | | | | | | | | 05-SS-030-1520 | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| 2-METHYLNAPHTHALENE | | 0.00184 | U | | 0.00178 | U | | 0.00196 | J | P | 0.00189 | U | |
| ACENAPHTHENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| ACENAPHTHYLENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| ANTHRACENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| BENZO(A)ANTHRACENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| BENZO(A)PYRENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| BENZO(B)FLUORANTHENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| BENZO(K)FLUORANTHENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| CHRYSENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| FLUORANTHENE | | 0.00184 | U | | 0.00178 | U | | 0.00259 | J | P | 0.00189 | U | |
| FLUORENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| NAPHTHALENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |
| PHENANTHRENE | | 0.00184 | U | | 0.00178 | U | | 0.00492 | J | P | 0.00304 | J | P |
| PYRENE | | 0.00184 | U | | 0.00178 | U | | 0.00193 | U | | 0.00189 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-031-0204 | | | 05-SS-032-0204 | | | 05-SS-033-0204 | | | 05-SS-034-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-05 | | | 1103237-07 | | | 1103237-08 | | | 1103237-09 | | |
| FRACTION: PAH | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 89.2 | | | 90.2 | | | 92.6 | | | 85.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| 2-METHYLNAPHTHALENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| ACENAPHTHENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| ACENAPHTHYLENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| ANTHRACENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| BENZO(A)ANTHRACENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| BENZO(A)PYRENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| BENZO(B)FLUORANTHENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| BENZO(K)FLUORANTHENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| CHRYSENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| FLUORANTHENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| FLUORENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| NAPHTHALENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| PHENANTHRENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |
| PYRENE | | 0.00185 | U | | 0.0018 | U | | 0.00178 | U | | 0.00185 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-035-0204 | | | 05-SS-036-0204 | | | 05-SS-066-0406 | | | 05-SS-068-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-10 | | | 1103237-11 | | | 1103237-12 | | | 1103237-13 | | |
| FRACTION: PAH | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 84.1 | | | 84.2 | | | 93.0 | | | 85.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00188 | U | | 0.00196 | U | | 0.00179 | U | | 0.00191 | U | |
| 2-METHYLNAPHTHALENE | | 0.00188 | U | | 0.00196 | U | | 0.00179 | U | | 0.00191 | U | |
| ACENAPHTHENE | | 0.00188 | U | | 0.00196 | U | | 0.00179 | U | | 0.00191 | U | |
| ACENAPHTHYLENE | | 0.00188 | U | | 0.00196 | U | | 0.00179 | U | | 0.00191 | U | |
| ANTHRACENE | | 0.00188 | U | | 0.00196 | U | | 0.00179 | U | | 0.0155 | | |
| BENZO(A)ANTHRACENE | | 0.00188 | U | | 0.00196 | U | | 0.0172 | | | 0.325 | | |
| BENZO(A)PYRENE | | 0.00188 | U | | 0.00196 | U | | 0.0101 | J | P | 0.289 | | |
| BENZO(B)FLUORANTHENE | | 0.00188 | U | | 0.00196 | U | | 0.00706 | J | P | 0.506 | | |
| BENZO(G,H,I)PERYLENE | | 0.00188 | U | | 0.00196 | U | | 0.00378 | J | P | 0.176 | | |
| BENZO(K)FLUORANTHENE | | 0.00188 | U | | 0.00196 | U | | 0.00259 | J | P | 0.221 | | |
| CHRYSENE | | 0.00188 | U | | 0.00196 | U | | 0.00468 | J | P | 0.387 | | |
| DIBENZO(A,H)ANTHRACENE | | 0.00188 | U | | 0.00196 | U | | 0.00179 | U | | 0.058 | | |
| FLUORANTHENE | | 0.00188 | U | | 0.00196 | U | | 0.00642 | J | P | 0.439 | | |
| FLUORENE | | 0.00188 | U | | 0.00196 | U | | 0.00179 | U | | 0.00191 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00188 | U | | 0.00196 | U | | 0.00297 | J | P | 0.151 | | |
| NAPHTHALENE | | 0.00188 | U | | 0.00196 | U | | 0.00179 | U | | 0.00266 | J | P |
| PHENANTHRENE | | 0.00188 | U | | 0.00196 | U | | 0.00229 | J | P | 0.0459 | | |
| PYRENE | | 0.00188 | U | | 0.00196 | U | | 0.00577 | J | P | 0.424 | | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-069-0406 | | |
| **SDG: CTOJM26_003** | LAB_ID | 1103237-14 | | |
| **FRACTION: PAH** | SAMP_DATE | 3/28/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | MG/KG | | |
| | PCT_SOLIDS | 93.4 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00179 | U | |
| 2-METHYLNAPHTHALENE | | 0.00179 | U | |
| ACENAPHTHENE | | 0.00179 | U | |
| ACENAPHTHYLENE | | 0.00179 | U | |
| ANTHRACENE | | 0.00179 | U | |
| BENZO(A)ANTHRACENE | | 0.00179 | U | |
| BENZO(A)PYRENE | | 0.00179 | U | |
| BENZO(B)FLUORANTHENE | | 0.00179 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00179 | U | |
| BENZO(K)FLUORANTHENE | | 0.00179 | U | |
| CHRYSENE | | 0.00179 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00179 | U | |
| FLUORANTHENE | | 0.00179 | U | |
| FLUORENE | | 0.00179 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00179 | U | |
| NAPHTHALENE | | 0.00179 | U | |
| PHENANTHRENE | | 0.00179 | U | |
| PYRENE | | 0.00179 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | EQUIPMENT BLANK 02 | | |
| **SDG: CTOJM26_003** | LAB_ID | 1103237-15 | | |
| **FRACTION: PAH** | SAMP_DATE | 3/28/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0472 | U | |
| 2-METHYLNAPHTHALENE | | 0.0472 | U | |
| ACENAPHTHENE | | 0.0472 | U | |
| ACENAPHTHYLENE | | 0.0472 | U | |
| ANTHRACENE | | 0.0472 | U | |
| BENZO(A)ANTHRACENE | | 0.208 | | |
| BENZO(A)PYRENE | | 0.0472 | U | |
| BENZO(B)FLUORANTHENE | | 0.0472 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0472 | U | |
| BENZO(K)FLUORANTHENE | | 0.0472 | U | |
| CHRYSENE | | 0.0472 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0472 | U | |
| FLUORANTHENE | | 0.0472 | U | |
| FLUORENE | | 0.0472 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0472 | U | |
| NAPHTHALENE | | 0.0993 | J | P |
| PHENANTHRENE | | 0.0472 | U | |
| PYRENE | | 0.0472 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-027-0204 | | | 05-SS-028-0204 | | | 05-SS-030-1520 | | | 05-SS-030-1520-D | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-01 | | | 1103237-02 | | | 1103237-03 | | | 1103237-04 | | |
| FRACTION: PET | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.0 | | | 93.0 | | | 85.0 | | | 87.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.2 | U | | 11.8 | U | | 58.4 | | | 33.3 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-031-0204 | | | 05-SS-032-0204 | | | 05-SS-033-0204 | | | 05-SS-034-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-05 | | | 1103237-07 | | | 1103237-08 | | | 1103237-09 | | |
| FRACTION: PET | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 89.2 | | | 90.2 | | | 92.6 | | | 85.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.3 | U | | 12.2 | U | | 11.9 | U | | 12.8 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-035-0204 | | | 05-SS-036-0204 | | | 05-SS-066-0406 | | | 05-SS-068-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_003 | LAB_ID | 1103237-10 | | | 1103237-11 | | | 1103237-12 | | | 1103237-13 | | |
| FRACTION: PET | SAMP_DATE | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | | 3/28/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 84.1 | | | 84.2 | | | 93.0 | | | 85.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 13.1 | U | | 13.1 | U | | 11.8 | U | | 50.6 | J | P |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-069-0406 | | |
| **SDG: CTOJM26_003** | LAB_ID | 1103237-14 | | |
| **FRACTION: PET** | SAMP_DATE | 3/28/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | MG/KG | | |
| | PCT_SOLIDS | 93.4 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.6 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | EQUIPMENT BLANK 02 | | |
| **SDG: CTOJM26_003** | LAB_ID | 1103237-15 | | |
| **FRACTION: PET** | SAMP_DATE | 3/28/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | MG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.163 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | EQUIPMENT BLANK 02 | | |
| **SDG: CTOJM26_003** | LAB_ID | 1103237-15 | | |
| **FRACTION: M** | SAMP_DATE | 3/28/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| LEAD | | 1.5 | U | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-SS-027-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103237-01RE1 | File ID: | 0323701.D |
| Sampled: | 03/28/11 07:05 | Prepared: | 04/04/11 00:00 | Analyzed: | 04/04/11 13:44 |
| Solids: | 90.04 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D04008 Sequence: 1D09501 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00160 | 0.00320 | 0.00640 | U |
| 100-41-4 | Ethylbenzene | | 0.000960 | 0.00320 | 0.00640 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00160 | 0.00320 | 0.00640 | U |
| 108-88-3 | Toluene | | 0.00110 | 0.00320 | 0.00640 | U |
| 1330-20-7 | Xylenes (total) | | 0.00480 | 0.00960 | 0.0192 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03838 | 0.03789 | 98.7 | 85 - 120 | |
| Dibromofluoromethane | 0.03838 | 0.03894 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03838 | 0.03890 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03838 | 0.03860 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-028-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103237-02RE1 | File ID: | 0323702.D |
| Sampled: | 03/28/11 07:35 | Prepared: | 04/04/11 00:00 | Analyzed: | 04/04/11 14:09 |
| Solids: | 93.00 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D04008 Sequence: 1D09501 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00157 | 0.00315 | 0.00630 | U |
| 100-41-4 | Ethylbenzene | | 0.000944 | 0.00315 | 0.00630 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00157 | 0.00315 | 0.00630 | U |
| 108-88-3 | Toluene | | 0.00108 | 0.00315 | 0.00630 | U |
| 1330-20-7 | Xylenes (total) | | 0.00472 | 0.00944 | 0.0189 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03777 | 0.03780 | 100 | 85 - 120 | |
| Dibromofluoromethane | 0.03777 | 0.03872 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03777 | 0.03867 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03777 | 0.03961 | 105 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-030-1520**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-03 | File ID: | 0323703.D |
| Sampled: | 03/28/11 08:32 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/01/11 21:02 |
| Solids: | 85.04 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00199 | 0.00398 | 0.00797 | U |
| 100-41-4 | Ethylbenzene | | 0.00120 | 0.00398 | 0.00797 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00199 | 0.00398 | 0.00797 | U |
| 108-88-3 | Toluene | | 0.00137 | 0.00398 | 0.00797 | U |
| 1330-20-7 | Xylenes (total) | | 0.00598 | 0.0120 | 0.0239 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04780 | 0.04527 | 94.7 | 85 - 120 | X |
| Dibromofluoromethane | 0.04780 | 0.05163 | 108 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04780 | 0.05036 | 105 | 75 - 140 | |
| Toluene-d8 | 0.04780 | 0.05138 | 107 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-030-1520-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-04 | File ID: | 0323704.D |
| Sampled: | 03/28/11 08:32 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/01/11 21:26 |
| Solids: | 87.22 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00158 | 0.00316 | 0.00633 | U |
| 100-41-4 | Ethylbenzene | | 0.000949 | 0.00316 | 0.00633 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00158 | 0.00316 | 0.00633 | U |
| 108-88-3 | Toluene | | 0.00109 | 0.00316 | 0.00633 | U |
| 1330-20-7 | Xylenes (total) | | 0.00475 | 0.00949 | 0.0190 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03797 | 0.03779 | 99.5 | 85 - 120 | X |
| Dibromofluoromethane | 0.03797 | 0.03987 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03797 | 0.04076 | 107 | 75 - 140 | |
| Toluene-d8 | 0.03797 | 0.03894 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-031-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-05 | File ID: | 0323705.D |
| Sampled: | 03/28/11 08:50 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/01/11 21:50 |
| Solids: | 89.22 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00214 | 0.00427 | 0.00854 | U |
| 100-41-4 | Ethylbenzene | | 0.00128 | 0.00427 | 0.00854 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00214 | 0.00427 | 0.00854 | U |
| 108-88-3 | Toluene | | 0.00147 | 0.00427 | 0.00854 | U |
| 1330-20-7 | Xylenes (total) | | 0.00641 | 0.0128 | 0.0256 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.05126 | 0.05224 | 102 | 85 - 120 | X |
| Dibromofluoromethane | 0.05126 | 0.05397 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.05126 | 0.05514 | 108 | 75 - 140 | |
| Toluene-d8 | 0.05126 | 0.05254 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-032-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-07 | File ID: | 0323707.D |
| Sampled: | 03/28/11 09:15 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/01/11 22:14 |
| Solids: | 90.16 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00160 | 0.00319 | 0.00639 | U |
| 100-41-4 | Ethylbenzene | | 0.000958 | 0.00319 | 0.00639 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00160 | 0.00319 | 0.00639 | U |
| 108-88-3 | Toluene | | 0.00110 | 0.00319 | 0.00639 | U |
| 1330-20-7 | Xylenes (total) | | 0.00479 | 0.00958 | 0.0192 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03833 | 0.03766 | 98.2 | 85 - 120 | X |
| Dibromofluoromethane | 0.03833 | 0.04028 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03833 | 0.03912 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03833 | 0.03894 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-033-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-08 | File ID: | 0323708.D |
| Sampled: | 03/28/11 09:45 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/01/11 22:38 |
| Solids: | 92.62 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00172 | 0.00344 | 0.00689 | U |
| 100-41-4 | Ethylbenzene | | 0.00103 | 0.00344 | 0.00689 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00172 | 0.00344 | 0.00689 | U |
| 108-88-3 | Toluene | | 0.00118 | 0.00344 | 0.00689 | U |
| 1330-20-7 | Xylenes (total) | | 0.00516 | 0.0103 | 0.0207 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04131 | 0.04021 | 97.3 | 85 - 120 | X |
| Dibromofluoromethane | 0.04131 | 0.04392 | 106 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04131 | 0.04281 | 104 | 75 - 140 | |
| Toluene-d8 | 0.04131 | 0.04239 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-034-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-09 | File ID: | 0323709.D |
| Sampled: | 03/28/11 10:10 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/01/11 23:03 |
| Solids: | 85.84 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00175 | 0.00350 | 0.00700 | U |
| 100-41-4 | Ethylbenzene | | 0.00105 | 0.00350 | 0.00700 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00175 | 0.00350 | 0.00700 | U |
| 108-88-3 | Toluene | | 0.00120 | 0.00350 | 0.00700 | U |
| 1330-20-7 | Xylenes (total) | | 0.00525 | 0.0105 | 0.0210 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04200 | 0.04112 | 97.9 | 85 - 120 | X |
| Dibromofluoromethane | 0.04200 | 0.04500 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04200 | 0.04331 | 103 | 75 - 140 | |
| Toluene-d8 | 0.04200 | 0.04269 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-035-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-10 | File ID: | 0323710.D |
| Sampled: | 03/28/11 10:25 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/01/11 23:27 |
| Solids: | 84.13 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00165 | 0.00330 | 0.00660 | U |
| 100-41-4 | Ethylbenzene | | 0.000991 | 0.00330 | 0.00660 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00165 | 0.00330 | 0.00660 | U |
| 108-88-3 | Toluene | | 0.00114 | 0.00330 | 0.00660 | U |
| 1330-20-7 | Xylenes (total) | | 0.00495 | 0.00991 | 0.0198 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03962 | 0.04030 | 102 | 85 - 120 | X |
| Dibromofluoromethane | 0.03962 | 0.04124 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03962 | 0.04033 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03962 | 0.04127 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-036-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-11 | File ID: | 0323711.D |
| Sampled: | 03/28/11 10:55 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/01/11 23:52 |
| Solids: | 84.23 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00167 | 0.00335 | 0.00670 | U |
| 100-41-4 | Ethylbenzene | | 0.00100 | 0.00335 | 0.00670 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00167 | 0.00335 | 0.00670 | U |
| 108-88-3 | Toluene | | 0.00115 | 0.00335 | 0.00670 | U |
| 1330-20-7 | Xylenes (total) | | 0.00502 | 0.0100 | 0.0201 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04020 | 0.04114 | 102 | 85 - 120 | X |
| Dibromofluoromethane | 0.04020 | 0.04123 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04020 | 0.04043 | 101 | 75 - 140 | |
| Toluene-d8 | 0.04020 | 0.04151 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-066-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-12 | File ID: | 0323712.D |
| Sampled: | 03/28/11 14:20 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/02/11 00:16 |
| Solids: | 93.04 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00159 | 0.00318 | 0.00637 | U |
| 100-41-4 | Ethylbenzene | | 0.000955 | 0.00318 | 0.00637 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00159 | 0.00318 | 0.00637 | U |
| 108-88-3 | Toluene | | 0.00110 | 0.00318 | 0.00637 | U |
| 1330-20-7 | Xylenes (total) | | 0.00478 | 0.00955 | 0.0191 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03820 | 0.03939 | 103 | 85 - 120 | X |
| Dibromofluoromethane | 0.03820 | 0.03890 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03820 | 0.03777 | 98.9 | 75 - 140 | |
| Toluene-d8 | 0.03820 | 0.03873 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-068-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-13 | File ID: | 0323713.D |
| Sampled: | 03/28/11 15:45 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/02/11 00:40 |
| Solids: | 85.29 | Preparation: | 5035 | Dilution: | 1 |
| Batch: | 1D01020 | Sequence: | 1D09404 | Calibration: | 1081001 |
| Instrument: | MS-VOA6 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00147 | 0.00294 | 0.00587 | U |
| 100-41-4 | Ethylbenzene | | 0.000881 | 0.00294 | 0.00587 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00147 | 0.00294 | 0.00587 | U |
| 108-88-3 | Toluene | | 0.00101 | 0.00294 | 0.00587 | U |
| 1330-20-7 | Xylenes (total) | | 0.00441 | 0.00881 | 0.0176 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03525 | 0.03406 | 96.6 | 85 - 120 | X |
| Dibromofluoromethane | 0.03525 | 0.03687 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03525 | 0.03639 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03525 | 0.03734 | 106 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-069-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-14 | File ID: | 0323714.D |
| Sampled: | 03/28/11 16:10 | Prepared: | 04/01/11 00:00 | Analyzed: | 04/02/11 01:05 |
| Solids: | 93.36 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00148 | 0.00296 | 0.00591 | U |
| 100-41-4 | Ethylbenzene | | 0.000887 | 0.00296 | 0.00591 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00148 | 0.00296 | 0.00591 | U |
| 108-88-3 | Toluene | | 0.00102 | 0.00296 | 0.00591 | U |
| 1330-20-7 | Xylenes (total) | | 0.00443 | 0.00887 | 0.0177 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03547 | 0.03671 | 103 | 85 - 120 | X |
| Dibromofluoromethane | 0.03547 | 0.03555 | 100 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03547 | 0.03578 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03547 | 0.03553 | 100 | 85 - 115 | |

# ANALYSIS DATA SHEET

**EQUIPMENT BLANK 02**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103237-15 | File ID: | 0323715.D |
| Sampled: | 03/28/11 16:30 | Prepared: | 03/31/11 00:00 | Analyzed: | 03/31/11 09:47 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C31007 Sequence: 1D09109 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.56 | 105 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 32.25 | 108 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.00 | 103 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.83 | 106 | 85 - 120 | |

# ANALYSIS DATA SHEET

**TRIPBLANK 9488**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103237-06 | File ID: | 0323706.D |
| Sampled: | 03/28/11 00:00 | Prepared: | 03/31/11 00:00 | Analyzed: | 03/31/11 08:46 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C31007 Sequence: 1D09109 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.20 | 104 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.65 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 29.62 | 98.7 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.18 | 104 | 85 - 120 | |

# ANALYSIS DATA SHEET

**TRIPBLANK 9489**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103237-16 | File ID: | 0323716.D |
| Sampled: | 03/28/11 00:00 | Prepared: | 03/31/11 00:00 | Analyzed: | 03/31/11 09:16 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1C31007 Sequence: 1D09109 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.71 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.79 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 29.64 | 98.8 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.66 | 102 | 85 - 120 | |

# ANALYSIS DATA SHEET

**EQUIPMENT BLANK 02**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103237-15 | File ID: | 011R0201.D |
| Sampled: | 03/28/11 16:30 | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 23:44 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00812 | 0.0162 | 0.0244 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

05-SS-027-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103237-01 | File ID: | 0323701.D |
| Sampled: | 03/28/11 07:05 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/08/11 21:00 |
| Solids: | 90.04 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00184 | 0.00367 | 0.0147 | U |
| 208-96-8 | Acenaphthylene | | 0.00184 | 0.00367 | 0.0147 | U |
| 120-12-7 | Anthracene | | 0.00184 | 0.00367 | 0.0147 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00184 | 0.00367 | 0.0147 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00184 | 0.00367 | 0.0147 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00184 | 0.00367 | 0.0147 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00184 | 0.00367 | 0.0147 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00184 | 0.00367 | 0.0147 | U |
| 218-01-9 | Chrysene | | 0.00184 | 0.00367 | 0.0147 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00184 | 0.00367 | 0.0147 | U |
| 206-44-0 | Fluoranthene | | 0.00184 | 0.00367 | 0.0147 | U |
| 86-73-7 | Fluorene | | 0.00184 | 0.00367 | 0.0147 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00184 | 0.00367 | 0.0147 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00184 | 0.00367 | 0.0147 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00184 | 0.00367 | 0.0147 | U |
| 91-20-3 | Naphthalene | | 0.00184 | 0.00367 | 0.0147 | U |
| 85-01-8 | Phenanthrene | | 0.00184 | 0.00367 | 0.0147 | U |
| 129-00-0 | Pyrene | | 0.00184 | 0.00367 | 0.0147 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.677 | 3.334 | 90.7 | 14 - 129 | |
| Terphenyl-d14 | 3.677 | 3.390 | 92.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-028-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103237-02 | File ID: | 0323702.D |
| Sampled: | 03/28/11 07:35 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/08/11 21:28 |
| Solids: | 93.00 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00178 | 0.00356 | 0.0142 | U |
| 208-96-8 | Acenaphthylene | | 0.00178 | 0.00356 | 0.0142 | U |
| 120-12-7 | Anthracene | | 0.00178 | 0.00356 | 0.0142 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00178 | 0.00356 | 0.0142 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00178 | 0.00356 | 0.0142 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00178 | 0.00356 | 0.0142 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00178 | 0.00356 | 0.0142 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00178 | 0.00356 | 0.0142 | U |
| 218-01-9 | Chrysene | | 0.00178 | 0.00356 | 0.0142 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00178 | 0.00356 | 0.0142 | U |
| 206-44-0 | Fluoranthene | | 0.00178 | 0.00356 | 0.0142 | U |
| 86-73-7 | Fluorene | | 0.00178 | 0.00356 | 0.0142 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00178 | 0.00356 | 0.0142 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00178 | 0.00356 | 0.0142 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00178 | 0.00356 | 0.0142 | U |
| 91-20-3 | Naphthalene | | 0.00178 | 0.00356 | 0.0142 | U |
| 85-01-8 | Phenanthrene | | 0.00178 | 0.00356 | 0.0142 | U |
| 129-00-0 | Pyrene | | 0.00178 | 0.00356 | 0.0142 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.560 | 3.420 | 96.0 | 14 - 129 | |
| Terphenyl-d14 | 3.560 | 3.343 | 93.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-030-1520**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103237-03 | File ID: | 0323703.D |
| Sampled: | 03/28/11 08:32 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/09/11 03:00 |
| Solids: | 85.04 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00193 | 0.00384 | 0.0153 | U |
| 208-96-8 | Acenaphthylene | | 0.00193 | 0.00384 | 0.0153 | U |
| 120-12-7 | Anthracene | | 0.00193 | 0.00384 | 0.0153 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00193 | 0.00384 | 0.0153 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00193 | 0.00384 | 0.0153 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00193 | 0.00384 | 0.0153 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00193 | 0.00384 | 0.0153 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00193 | 0.00384 | 0.0153 | U |
| 218-01-9 | Chrysene | | 0.00193 | 0.00384 | 0.0153 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00193 | 0.00384 | 0.0153 | U |
| 206-44-0 | Fluoranthene | 0.00259 | 0.00193 | 0.00384 | 0.0153 | 1 |
| 86-73-7 | Fluorene | | 0.00193 | 0.00384 | 0.0153 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00193 | 0.00384 | 0.0153 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00193 | 0.00384 | 0.0153 | U |
| 91-57-6 | 2-Methylnaphthalene | 0.00196 | 0.00193 | 0.00384 | 0.0153 | I |
| 91-20-3 | Naphthalene | | 0.00193 | 0.00384 | 0.0153 | U |
| 85-01-8 | Phenanthrene | 0.00492 | 0.00193 | 0.00384 | 0.0153 | 1 |
| 129-00-0 | Pyrene | | 0.00193 | 0.00384 | 0.0153 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.843 | 3.652 | 95.0 | 14 - 129 | |
| Terphenyl-d14 | 3.843 | 3.446 | 89.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-030-1520-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-04 | File ID: | 0323704.D |
| Sampled: | 03/28/11 08:32 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/09/11 03:27 |
| Solids: | 87.22 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00189 | 0.00377 | 0.0150 | U |
| 208-96-8 | Acenaphthylene | | 0.00189 | 0.00377 | 0.0150 | U |
| 120-12-7 | Anthracene | | 0.00189 | 0.00377 | 0.0150 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00189 | 0.00377 | 0.0150 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00189 | 0.00377 | 0.0150 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00189 | 0.00377 | 0.0150 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00189 | 0.00377 | 0.0150 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00189 | 0.00377 | 0.0150 | U |
| 218-01-9 | Chrysene | | 0.00189 | 0.00377 | 0.0150 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00189 | 0.00377 | 0.0150 | U |
| 206-44-0 | Fluoranthene | | 0.00189 | 0.00377 | 0.0150 | U |
| 86-73-7 | Fluorene | | 0.00189 | 0.00377 | 0.0150 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00189 | 0.00377 | 0.0150 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00189 | 0.00377 | 0.0150 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00189 | 0.00377 | 0.0150 | U |
| 91-20-3 | Naphthalene | | 0.00189 | 0.00377 | 0.0150 | U |
| 85-01-8 | Phenanthrene | 0.00304 | 0.00189 | 0.00377 | 0.0150 | I |
| 129-00-0 | Pyrene | | 0.00189 | 0.00377 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.772 | 3.482 | 92.3 | 14 - 129 | |
| Terphenyl-d14 | 3.772 | 3.661 | 97.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-031-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-05 | File ID: | 0323705.D |
| Sampled: | 03/28/11 08:50 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/09/11 03:55 |
| Solids: | 89.22 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00185 | 0.00368 | 0.0147 | U |
| 208-96-8 | Acenaphthylene | | 0.00185 | 0.00368 | 0.0147 | U |
| 120-12-7 | Anthracene | | 0.00185 | 0.00368 | 0.0147 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00185 | 0.00368 | 0.0147 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00185 | 0.00368 | 0.0147 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00185 | 0.00368 | 0.0147 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00185 | 0.00368 | 0.0147 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00185 | 0.00368 | 0.0147 | U |
| 218-01-9 | Chrysene | | 0.00185 | 0.00368 | 0.0147 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00185 | 0.00368 | 0.0147 | U |
| 206-44-0 | Fluoranthene | | 0.00185 | 0.00368 | 0.0147 | U |
| 86-73-7 | Fluorene | | 0.00185 | 0.00368 | 0.0147 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00185 | 0.00368 | 0.0147 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00185 | 0.00368 | 0.0147 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00185 | 0.00368 | 0.0147 | U |
| 91-20-3 | Naphthalene | | 0.00185 | 0.00368 | 0.0147 | U |
| 85-01-8 | Phenanthrene | | 0.00185 | 0.00368 | 0.0147 | U |
| 129-00-0 | Pyrene | | 0.00185 | 0.00368 | 0.0147 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.687 | 3.179 | 86.2 | 14 - 129 | |
| Terphenyl-d14 | 3.687 | 3.230 | 87.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-032-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-07 | File ID: | 0323707.D |
| Sampled: | 03/28/11 09:15 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/12/11 19:58 |
| Solids: | 90.16 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00180 | 0.00360 | 0.0144 | U |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00360 | 0.0144 | U |
| 120-12-7 | Anthracene | | 0.00180 | 0.00360 | 0.0144 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00180 | 0.00360 | 0.0144 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00180 | 0.00360 | 0.0144 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00180 | 0.00360 | 0.0144 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00180 | 0.00360 | 0.0144 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00180 | 0.00360 | 0.0144 | U |
| 218-01-9 | Chrysene | | 0.00180 | 0.00360 | 0.0144 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00180 | 0.00360 | 0.0144 | U |
| 206-44-0 | Fluoranthene | | 0.00180 | 0.00360 | 0.0144 | U |
| 86-73-7 | Fluorene | | 0.00180 | 0.00360 | 0.0144 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00180 | 0.00360 | 0.0144 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00180 | 0.00360 | 0.0144 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00180 | 0.00360 | 0.0144 | U |
| 91-20-3 | Naphthalene | | 0.00180 | 0.00360 | 0.0144 | U |
| 85-01-8 | Phenanthrene | | 0.00180 | 0.00360 | 0.0144 | U |
| 129-00-0 | Pyrene | | 0.00180 | 0.00360 | 0.0144 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.601 | 3.046 | 84.6 | 14 - 129 | |
| Terphenyl-d14 | 3.601 | 3.574 | 99.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-033-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-08 | File ID: | 0323708.D |
| Sampled: | 03/28/11 09:45 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/12/11 20:26 |
| Solids: | 92.62 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00178 | 0.00355 | 0.0142 | U |
| 208-96-8 | Acenaphthylene | | 0.00178 | 0.00355 | 0.0142 | U |
| 120-12-7 | Anthracene | | 0.00178 | 0.00355 | 0.0142 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00178 | 0.00355 | 0.0142 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00178 | 0.00355 | 0.0142 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00178 | 0.00355 | 0.0142 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00178 | 0.00355 | 0.0142 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00178 | 0.00355 | 0.0142 | U |
| 218-01-9 | Chrysene | | 0.00178 | 0.00355 | 0.0142 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00178 | 0.00355 | 0.0142 | U |
| 206-44-0 | Fluoranthene | | 0.00178 | 0.00355 | 0.0142 | U |
| 86-73-7 | Fluorene | | 0.00178 | 0.00355 | 0.0142 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00178 | 0.00355 | 0.0142 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00178 | 0.00355 | 0.0142 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00178 | 0.00355 | 0.0142 | U |
| 91-20-3 | Naphthalene | | 0.00178 | 0.00355 | 0.0142 | U |
| 85-01-8 | Phenanthrene | | 0.00178 | 0.00355 | 0.0142 | U |
| 129-00-0 | Pyrene | | 0.00178 | 0.00355 | 0.0142 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.552 | 3.170 | 89.3 | 14 - 129 | |
| Terphenyl-d14 | 3.552 | 3.471 | 97.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-034-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-09 | File ID: | 0323709.D |
| Sampled: | 03/28/11 10:10 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/12/11 20:53 |
| Solids: | 85.84 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00185 | 0.00368 | 0.0147 | U |
| 208-96-8 | Acenaphthylene | | 0.00185 | 0.00368 | 0.0147 | U |
| 120-12-7 | Anthracene | | 0.00185 | 0.00368 | 0.0147 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00185 | 0.00368 | 0.0147 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00185 | 0.00368 | 0.0147 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00185 | 0.00368 | 0.0147 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00185 | 0.00368 | 0.0147 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00185 | 0.00368 | 0.0147 | U |
| 218-01-9 | Chrysene | | 0.00185 | 0.00368 | 0.0147 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00185 | 0.00368 | 0.0147 | U |
| 206-44-0 | Fluoranthene | | 0.00185 | 0.00368 | 0.0147 | U |
| 86-73-7 | Fluorene | | 0.00185 | 0.00368 | 0.0147 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00185 | 0.00368 | 0.0147 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00185 | 0.00368 | 0.0147 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00185 | 0.00368 | 0.0147 | U |
| 91-20-3 | Naphthalene | | 0.00185 | 0.00368 | 0.0147 | U |
| 85-01-8 | Phenanthrene | | 0.00185 | 0.00368 | 0.0147 | U |
| 129-00-0 | Pyrene | | 0.00185 | 0.00368 | 0.0147 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.687 | 3.188 | 86.5 | 14 - 129 | |
| Terphenyl-d14 | 3.687 | 3.387 | 91.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-035-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-10 | File ID: | 0323710.D |
| Sampled: | 03/28/11 10:25 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/12/11 21:21 |
| Solids: | 84.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00188 | 0.00376 | 0.0150 | U |
| 208-96-8 | Acenaphthylene | | 0.00188 | 0.00376 | 0.0150 | U |
| 120-12-7 | Anthracene | | 0.00188 | 0.00376 | 0.0150 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00188 | 0.00376 | 0.0150 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00188 | 0.00376 | 0.0150 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00188 | 0.00376 | 0.0150 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00188 | 0.00376 | 0.0150 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00188 | 0.00376 | 0.0150 | U |
| 218-01-9 | Chrysene | | 0.00188 | 0.00376 | 0.0150 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00188 | 0.00376 | 0.0150 | U |
| 206-44-0 | Fluoranthene | | 0.00188 | 0.00376 | 0.0150 | U |
| 86-73-7 | Fluorene | | 0.00188 | 0.00376 | 0.0150 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00188 | 0.00376 | 0.0150 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00188 | 0.00376 | 0.0150 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00188 | 0.00376 | 0.0150 | U |
| 91-20-3 | Naphthalene | | 0.00188 | 0.00376 | 0.0150 | U |
| 85-01-8 | Phenanthrene | | 0.00188 | 0.00376 | 0.0150 | U |
| 129-00-0 | Pyrene | | 0.00188 | 0.00376 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.762 | 3.339 | 88.8 | 14 - 129 | |
| Terphenyl-d14 | 3.762 | 3.470 | 92.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-036-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-11 | File ID: | 0323711.D |
| Sampled: | 03/28/11 10:55 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/08/11 21:55 |
| Solids: | 84.23 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00196 | 0.00390 | 0.0156 | U |
| 208-96-8 | Acenaphthylene | | 0.00196 | 0.00390 | 0.0156 | U |
| 120-12-7 | Anthracene | | 0.00196 | 0.00390 | 0.0156 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00196 | 0.00390 | 0.0156 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00196 | 0.00390 | 0.0156 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00196 | 0.00390 | 0.0156 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00196 | 0.00390 | 0.0156 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00196 | 0.00390 | 0.0156 | U |
| 218-01-9 | Chrysene | | 0.00196 | 0.00390 | 0.0156 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00196 | 0.00390 | 0.0156 | U |
| 206-44-0 | Fluoranthene | | 0.00196 | 0.00390 | 0.0156 | U |
| 86-73-7 | Fluorene | | 0.00196 | 0.00390 | 0.0156 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00196 | 0.00390 | 0.0156 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00196 | 0.00390 | 0.0156 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00196 | 0.00390 | 0.0156 | U |
| 91-20-3 | Naphthalene | | 0.00196 | 0.00390 | 0.0156 | U |
| 85-01-8 | Phenanthrene | | 0.00196 | 0.00390 | 0.0156 | U |
| 129-00-0 | Pyrene | | 0.00196 | 0.00390 | 0.0156 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.905 | 3.591 | 92.0 | 14 - 129 | |
| Terphenyl-d14 | 3.905 | 3.586 | 91.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-066-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-12 | File ID: | 0323712.D |
| Sampled: | 03/28/11 14:20 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/08/11 22:23 |
| Solids: | 93.04 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00358 | 0.0143 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00358 | 0.0143 | U |
| 56-55-3 | Benzo(a)anthracene | 0.0172 | 0.00179 | 0.00358 | 0.0143 | |
| 50-32-8 | Benzo(a)pyrene | 0.0101 | 0.00179 | 0.00358 | 0.0143 | I |
| 205-99-2 | Benzo(b)fluoranthene | 0.00706 | 0.00179 | 0.00358 | 0.0143 | I |
| 191-24-2 | Benzo(g,h,i)perylene | 0.00378 | 0.00179 | 0.00358 | 0.0143 | I |
| 207-08-9 | Benzo(k)fluoranthene | 0.00259 | 0.00179 | 0.00358 | 0.0143 | I |
| 218-01-9 | Chrysene | 0.00468 | 0.00179 | 0.00358 | 0.0143 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00358 | 0.0143 | U |
| 206-44-0 | Fluoranthene | 0.00642 | 0.00179 | 0.00358 | 0.0143 | I |
| 86-73-7 | Fluorene | | 0.00179 | 0.00358 | 0.0143 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00297 | 0.00179 | 0.00358 | 0.0143 | I |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 85-01-8 | Phenanthrene | 0.00229 | 0.00179 | 0.00358 | 0.0143 | I |
| 129-00-0 | Pyrene | 0.00577 | 0.00179 | 0.00358 | 0.0143 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.583 | 3.090 | 86.3 | 14 - 129 | |
| Terphenyl-d14 | 3.583 | 3.330 | 92.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-068-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-13 | File ID: | 0323713.D |
| Sampled: | 03/28/11 15:45 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/12/11 21:49 |
| Solids: | 85.29 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00191 | 0.00380 | 0.0152 | U |
| 208-96-8 | Acenaphthylene | | 0.00191 | 0.00380 | 0.0152 | U |
| 120-12-7 | Anthracene | 0.0155 | 0.00191 | 0.00380 | 0.0152 | |
| 56-55-3 | Benzo(a)anthracene | 0.325 | 0.00191 | 0.00380 | 0.0152 | |
| 50-32-8 | Benzo(a)pyrene | 0.289 | 0.00191 | 0.00380 | 0.0152 | |
| 205-99-2 | Benzo(b)fluoranthene | 0.506 | 0.00191 | 0.00380 | 0.0152 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.176 | 0.00191 | 0.00380 | 0.0152 | |
| 207-08-9 | Benzo(k)fluoranthene | 0.221 | 0.00191 | 0.00380 | 0.0152 | |
| 218-01-9 | Chrysene | 0.387 | 0.00191 | 0.00380 | 0.0152 | |
| 53-70-3 | Dibenz(a,h)anthracene | 0.0580 | 0.00191 | 0.00380 | 0.0152 | |
| 206-44-0 | Fluoranthene | 0.439 | 0.00191 | 0.00380 | 0.0152 | |
| 86-73-7 | Fluorene | | 0.00191 | 0.00380 | 0.0152 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.151 | 0.00191 | 0.00380 | 0.0152 | |
| 90-12-0 | 1-Methylnaphthalene | | 0.00191 | 0.00380 | 0.0152 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00191 | 0.00380 | 0.0152 | U |
| 91-20-3 | Naphthalene | 0.00266 | 0.00191 | 0.00380 | 0.0152 | I |
| 85-01-8 | Phenanthrene | 0.0459 | 0.00191 | 0.00380 | 0.0152 | |
| 129-00-0 | Pyrene | 0.424 | 0.00191 | 0.00380 | 0.0152 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.807 | 3.269 | 85.9 | 14 - 129 | |
| Terphenyl-d14 | 3.807 | 3.426 | 90.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-069-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-14 | File ID: | 0323714.D |
| Sampled: | 03/28/11 16:10 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/08/11 22:51 |
| Solids: | 93.36 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00357 | 0.0142 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00357 | 0.0142 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00357 | 0.0142 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00179 | 0.00357 | 0.0142 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00179 | 0.00357 | 0.0142 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00179 | 0.00357 | 0.0142 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00179 | 0.00357 | 0.0142 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00179 | 0.00357 | 0.0142 | U |
| 218-01-9 | Chrysene | | 0.00179 | 0.00357 | 0.0142 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00357 | 0.0142 | U |
| 206-44-0 | Fluoranthene | | 0.00179 | 0.00357 | 0.0142 | U |
| 86-73-7 | Fluorene | | 0.00179 | 0.00357 | 0.0142 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00179 | 0.00357 | 0.0142 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00357 | 0.0142 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00357 | 0.0142 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00357 | 0.0142 | U |
| 85-01-8 | Phenanthrene | | 0.00179 | 0.00357 | 0.0142 | U |
| 129-00-0 | Pyrene | | 0.00179 | 0.00357 | 0.0142 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.570 | 2.956 | 82.8 | 14 - 129 | |
| Terphenyl-d14 | 3.570 | 3.456 | 96.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**EQUIPMENT BLANK 02**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103237-15 | File ID: | 0323715.D |
| Sampled: | 03/28/11 16:30 | Prepared: | 04/01/11 11:25 | Analyzed: | 04/04/11 18:51 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C31016 Sequence: 1D09509 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0472 | 0.0943 | 0.189 | U |
| 208-96-8 | Acenaphthylene | | 0.0472 | 0.0943 | 0.189 | U |
| 120-12-7 | Anthracene | | 0.0472 | 0.0943 | 0.189 | U |
| 56-55-3 | Benzo(a)anthracene | 0.208 | 0.0472 | 0.0943 | 0.189 | |
| 50-32-8 | Benzo(a)pyrene | | 0.0472 | 0.0943 | 0.189 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0472 | 0.0943 | 0.189 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0472 | 0.0943 | 0.189 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0472 | 0.0943 | 0.189 | U |
| 218-01-9 | Chrysene | | 0.0472 | 0.0943 | 0.189 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0472 | 0.0943 | 0.189 | U |
| 206-44-0 | Fluoranthene | | 0.0472 | 0.0943 | 0.189 | U |
| 86-73-7 | Fluorene | | 0.0472 | 0.0943 | 0.189 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0472 | 0.0943 | 0.189 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0472 | 0.0943 | 0.189 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0472 | 0.0943 | 0.189 | U |
| 91-20-3 | Naphthalene | 0.0993 | 0.0472 | 0.0943 | 0.189 | I |
| 85-01-8 | Phenanthrene | | 0.0472 | 0.0943 | 0.189 | U |
| 129-00-0 | Pyrene | | 0.0472 | 0.0943 | 0.189 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 47.17 | 32.55 | 69.0 | 34 - 167 | |
| Terphenyl-d14 | 47.17 | 27.33 | 57.9 | 34 - 167 | |

# ANALYSIS DATA SHEET

05-SS-027-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-01 | File ID: | 026F2601.D |
| Sampled: | 03/28/11 07:05 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 00:52 |
| Solids: | 90.04 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.2 | 24.4 | 48.9 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.702 | 2.852 | 77.0 | 50 - 150 | |
| o-Terphenyl | 3.702 | 2.913 | 78.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-028-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-02 | File ID: | 027F2701.D |
| Sampled: | 03/28/11 07:35 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 01:34 |
| Solids: | 93.00 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.7 | 47.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.584 | 3.058 | 85.3 | 50 - 150 | |
| o-Terphenyl | 3.584 | 2.852 | 79.6 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-030-1520**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103237-03 | File ID: | 029F2901.D |
| Sampled: | 03/28/11 08:32 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 02:59 |
| Solids: | 85.04 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 58.4 | 12.9 | 25.9 | 51.7 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.920 | 3.130 | 79.8 | 50 - 150 | |
| o-Terphenyl | 3.920 | 2.676 | 68.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-030-1520-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-04 | File ID: | 030F3001.D |
| Sampled: | 03/28/11 08:32 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 03:41 |
| Solids: | 87.22 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 33.3 | 12.6 | 25.2 | 50.4 | 1 |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.822 | 3.189 | 83.4 | 50 - 150 | |
| o-Terphenyl | 3.822 | 2.747 | 71.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-031-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103237-05 | File ID: | 031F3101.D |
| Sampled: | 03/28/11 08:50 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 04:23 |
| Solids: | 89.22 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.3 | 24.7 | 49.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.736 | 2.912 | 77.9 | 50 - 150 | |
| o-Terphenyl | 3.736 | 2.881 | 77.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-032-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-07 | File ID: | 032F3201.D |
| Sampled: | 03/28/11 09:15 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 05:06 |
| Solids: | 90.16 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.2 | 24.4 | 48.8 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.697 | 3.372 | 91.2 | 50 - 150 | |
| o-Terphenyl | 3.697 | 3.042 | 82.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-033-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-08 | File ID: | 033F3301.D |
| Sampled: | 03/28/11 09:45 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 05:48 |
| Solids: | 92.62 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.599 | 2.722 | 75.6 | 50 - 150 | |
| o-Terphenyl | 3.599 | 2.451 | 68.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-034-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-09 | File ID: | 034F3401.D |
| Sampled: | 03/28/11 10:10 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 06:30 |
| Solids: | 85.84 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.8 | 25.6 | 51.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.883 | 3.819 | 98.4 | 50 - 150 | |
| o-Terphenyl | 3.883 | 3.491 | 89.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-035-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-10 | File ID: | 035F3501.D |
| Sampled: | 03/28/11 10:25 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 07:12 |
| Solids: | 84.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 13.1 | 26.2 | 52.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.962 | 2.986 | 75.4 | 50 - 150 | |
| o-Terphenyl | 3.962 | 2.834 | 71.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-036-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-11 | File ID: | 036F3601.D |
| Sampled: | 03/28/11 10:55 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 07:55 |
| Solids: | 84.23 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 13.1 | 26.1 | 52.2 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.957 | 3.190 | 80.6 | 50 - 150 | |
| o-Terphenyl | 3.957 | 2.997 | 75.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-066-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-12 | File ID: | 037F3701.D |
| Sampled: | 03/28/11 14:20 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 08:37 |
| Solids: | 93.04 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.6 | 47.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.583 | 2.429 | 67.8 | 50 - 150 | |
| o-Terphenyl | 3.583 | 2.434 | 67.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-068-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103237-13 | File ID: | 038F3801.D |
| Sampled: | 03/28/11 15:45 | Prepared: | 04/06/11 11:00 | Analyzed: | 04/08/11 09:19 |
| Solids: | 85.29 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 50.6 | 12.9 | 25.8 | 51.6 | 1 |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.908 | 3.877 | 99.2 | 50 - 150 | |
| o-Terphenyl | 3.908 | 3.175 | 81.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-069-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103237-14 | File ID: | 005F0501.D |
| Sampled: | 03/28/11 16:10 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 14:39 |
| Solids: | 93.36 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.6 | 23.1 | 46.2 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.500 | 2.596 | 74.1 | 50 - 150 | |
| o-Terphenyl | 3.500 | 2.372 | 67.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

**EQUIPMENT BLANK 02**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1103237-15 | File ID: | 033F3301.D |
| Sampled: | 03/28/11 16:30 | Prepared: | 04/01/11 11:40 | Analyzed: | 04/05/11 05:03 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C31015 Sequence: 1D09506 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.163 | 0.327 | 0.654 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04808 | 0.03610 | 75.1 | 50 - 150 | |
| o-Terphenyl | 0.04808 | 0.02960 | 61.6 | 82 - 142 | * |

# ANALYSIS DATA SHEET

**EQUIPMENT BLANK 02**

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Water
Sampled: 03/28/11 16:30
% Solids: 0.00

SDG: CTOJM26_003
Project: NAS Pensacola CTO JM26 Saufley
Laboratory ID: 1103237-15
Received: 03/29/11 08:45

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | | 1.50 | 3.00 | 3.00 | 1 | U | SW6010C | 1D06001 | 04/07/11 12:40 |

# APPENDIX C

## SUPPORT DOCUMENTATION

# HOLDTIME

**SDG** CTOJM26_003

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/06/2011 | 04/07/2011 | 8 | 1 | 9 |
| M | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 04/06/2011 | 04/07/2011 | 9 | 1 | 10 |
| EDB | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 04/06/2011 | 04/06/2011 | 9 | 0 | 9 |
| EDB | UG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/06/2011 | 04/07/2011 | 8 | 1 | 9 |
| OV | MG/KG | 05-SS-084-0406 | 1103257-12 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-073-0406-D | 1103257-02 | NM | 03/29/2011 | 04/04/2011 | 04/05/2011 | 6 | 1 | 7 |
| OV | MG/KG | 05-SS-074-0406 | 1103257-04RE1 | NM | 03/29/2011 | 04/06/2011 | 04/06/2011 | 8 | 0 | 8 |
| OV | MG/KG | 05-SS-078-0406 | 1103257-06 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-079-0406 | 1103257-07 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-080-0406 | 1103257-08RE1 | NM | 03/29/2011 | 04/06/2011 | 04/06/2011 | 8 | 0 | 8 |
| OV | MG/KG | 05-SS-081-0406 | 1103257-09 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-073-0406 | 1103257-03 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-083-0406 | 1103257-11 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-086-0406-D | 1103257-16 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-085-0406 | 1103257-14 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | MG/KG | 05-SS-086-0406 | 1103257-15 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-087-0406 | 1103257-17 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-082-0406 | 1103257-10 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-033-0204 | 1103237-08 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-070-0406 | 1103257-01 | NM | 03/29/2011 | 04/04/2011 | 04/05/2011 | 6 | 1 | 7 |
| OV | MG/KG | 05-SS-027-0204 | 1103237-01RE1 | NM | 03/28/2011 | 04/04/2011 | 04/04/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-028-0204 | 1103237-02RE1 | NM | 03/28/2011 | 04/04/2011 | 04/04/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-030-1520 | 1103237-03 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-030-1520-D | 1103237-04 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-032-0204 | 1103237-07 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-034-0204 | 1103237-09 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-035-0204 | 1103237-10 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-036-0204 | 1103237-11 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-066-0406 | 1103237-12 | NM | 03/28/2011 | 04/01/2011 | 04/02/2011 | 4 | 1 | 5 |
| OV | MG/KG | 05-SS-068-0406 | 1103237-13 | NM | 03/28/2011 | 04/01/2011 | 04/02/2011 | 4 | 1 | 5 |
| OV | MG/KG | 05-SS-069-0406 | 1103237-14 | NM | 03/28/2011 | 04/01/2011 | 04/02/2011 | 4 | 1 | 5 |
| OV | MG/KG | 05-SS-031-0204 | 1103237-05 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 03/31/2011 | 03/31/2011 | 3 | 0 | 3 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | UG/L | TRIPBLANK 9489 | 1103237-16 | NM | 03/28/2011 | 03/31/2011 | 03/31/2011 | 3 | 0 | 3 |
| OV | UG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/01/2011 | 04/01/2011 | 3 | 0 | 3 |
| OV | UG/L | TRIP BLANK 9486 | 1103257-05 | NM | 03/29/2011 | 04/01/2011 | 04/01/2011 | 3 | 0 | 3 |
| OV | UG/L | TRIPBLANK 9488 | 1103237-06 | NM | 03/28/2011 | 03/31/2011 | 03/31/2011 | 3 | 0 | 3 |
| SIM | MG/KG | 05-SS-033-0204 | 1103237-08 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-068-0406 | 1103237-13 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-068-0406 | 1103237-13 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-028-0204 | 1103237-02 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-066-0406 | 1103237-12 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-069-0406 | 1103237-14 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-066-0406 | 1103237-12 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-036-0204 | 1103237-11 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-036-0204 | 1103237-11 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-035-0204 | 1103237-10 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-035-0204 | 1103237-10 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-034-0204 | 1103237-09 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-034-0204 | 1103237-09 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-033-0204 | 1103237-08 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-032-0204 | 1103237-07 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-032-0204 | 1103237-07 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-031-0204 | 1103237-05 | SUR | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-031-0204 | 1103237-05 | NM | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-030-1520-D | 1103237-04 | SUR | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-030-1520-D | 1103237-04 | NM | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-030-1520 | 1103237-03 | SUR | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-028-0204 | 1103237-02 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-027-0204 | 1103237-01 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-027-0204 | 1103237-01 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-070-0406 | 1103257-01 | SUR | 03/29/2011 | 04/07/2011 | 04/08/2011 | 9 | 1 | 10 |
| SIM | MG/KG | 05-SS-030-1520 | 1103237-03 | NM | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-081-0406 | 1103257-09 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-087-0406 | 1103257-17 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-087-0406 | 1103257-17 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-086-0406-D | 1103257-16 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-086-0406-D | 1103257-16 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-086-0406 | 1103257-15 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-086-0406 | 1103257-15 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-085-0406 | 1103257-14 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-085-0406 | 1103257-14 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-084-0406 | 1103257-12 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-084-0406 | 1103257-12 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-083-0406 | 1103257-11 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-083-0406 | 1103257-11 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-070-0406 | 1103257-01 | NM | 03/29/2011 | 04/07/2011 | 04/08/2011 | 9 | 1 | 10 |
| SIM | MG/KG | 05-SS-082-0406 | 1103257-10 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-078-0406 | 1103257-06 | NM | 03/29/2011 | 04/07/2011 | 04/12/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-069-0406 | 1103237-14 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-073-0406 | 1103257-03 | NM | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-073-0406 | 1103257-03 | SUR | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-073-0406-D | 1103257-02 | NM | 03/29/2011 | 04/07/2011 | 04/08/2011 | 9 | 1 | 10 |
| SIM | MG/KG | 05-SS-073-0406-D | 1103257-02 | SUR | 03/29/2011 | 04/07/2011 | 04/08/2011 | 9 | 1 | 10 |
| SIM | MG/KG | 05-SS-082-0406 | 1103257-10 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-074-0406 | 1103257-04 | SUR | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-078-0406 | 1103257-06 | SUR | 03/29/2011 | 04/07/2011 | 04/12/2011 | 9 | 5 | 14 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-079-0406 | 1103257-07 | NM | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-079-0406 | 1103257-07 | SUR | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-080-0406 | 1103257-08 | NM | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-080-0406 | 1103257-08 | SUR | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-081-0406 | 1103257-09 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-074-0406 | 1103257-04 | NM | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | UG/L | 05-MW-084 | 1103257-13 | SUR | 03/29/2011 | 04/01/2011 | 04/04/2011 | 3 | 3 | 6 |
| SIM | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 04/01/2011 | 04/04/2011 | 4 | 3 | 7 |
| SIM | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | SUR | 03/28/2011 | 04/01/2011 | 04/04/2011 | 4 | 3 | 7 |
| SIM | UG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/01/2011 | 04/04/2011 | 3 | 3 | 6 |
| TPH | MG/KG | 05-SS-082-0406 | 1103257-10 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-073-0406 | 1103257-03 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-074-0406 | 1103257-04 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-078-0406 | 1103257-06 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-079-0406 | 1103257-07 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-081-0406 | 1103257-09 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-070-0406 | 1103257-01 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-083-0406 | 1103257-11 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-084-0406 | 1103257-12 | NM | 03/29/2011 | 04/08/2011 | 04/11/2011 | 10 | 3 | 13 |
| TPH | MG/KG | 05-SS-085-0406 | 1103257-14 | NM | 03/29/2011 | 04/08/2011 | 04/11/2011 | 10 | 3 | 13 |
| TPH | MG/KG | 05-SS-086-0406 | 1103257-15 | NM | 03/29/2011 | 04/08/2011 | 04/11/2011 | 10 | 3 | 13 |
| TPH | MG/KG | 05-SS-086-0406-D | 1103257-16 | NM | 03/29/2011 | 04/08/2011 | 04/11/2011 | 10 | 3 | 13 |
| TPH | MG/KG | 05-SS-087-0406 | 1103257-17 | NM | 03/29/2011 | 04/13/2011 | 04/15/2011 | 15 | 2 | 17 |
| TPH | MG/KG | 05-SS-080-0406 | 1103257-08 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-032-0204 | 1103237-07 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-027-0204 | 1103237-01 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-028-0204 | 1103237-02 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-030-1520 | 1103237-03 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-073-0406-D | 1103257-02 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-031-0204 | 1103237-05 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-069-0406 | 1103237-14 | NM | 03/28/2011 | 04/08/2011 | 04/10/2011 | 11 | 2 | 13 |
| TPH | MG/KG | 05-SS-033-0204 | 1103237-08 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-034-0204 | 1103237-09 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-035-0204 | 1103237-10 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-036-0204 | 1103237-11 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-066-0406 | 1103237-12 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-068-0406 | 1103237-13 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-030-1520-D | 1103237-04 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 04/01/2011 | 04/05/2011 | 4 | 4 | 8 |
| TPH | MG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/01/2011 | 04/05/2011 | 3 | 4 | 7 |

# SAUFLEY FIELD
# SOIL DATA
# CTOJM26_003

| FRACTION | CHEMICAL | 05-SS-030-1520 | UNITS | 05-SS-030-1520-D | RPD | D | |
|---|---|---|---|---|---|---|---|
| PAH | 2-METHYLNAPHTHALENE | 0.00196 J | MG/KG | ND | 200.00 | 0.00 | OK <2x RL |
| PAH | FLUORANTHENE | 0.00259 J | MG/KG | ND | 200.00 | 0.00 | 1 |
| PAH | PHENANTHRENE | 0.00492 J | MG/KG | 0.00304 J | 47.24 | 0.00 | |
| PET | TPH (C08-C40) | 58.4 | MG/KG | 33.3 J | 54.74 | 25.10 | OK<2x RL |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

*ANALYTICAL SUMMARY DATA PACKAGE*
SDG # CTOJM26_003

**PROJECT NAME:** NAS PENSACOLA CTO JM26 SAUFLEY
**PROJECT LOCATION:** PENSACOLA, FL
**CONTRACT #:** N62470-08-D-1001

**SUBMITTAL TO:**
Tobrena Sedlmeyer
Tetra Tech NUS, Inc.
Foster Plaza 7
661 Andersen Drive
Pittsburgh, PA 15220

**SUBMITTAL BY:**
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

**LABORATORY CONTACT PERSON:**
Project Manager: Brian Richard
Tel (615)345-1115
Fax (866)417-0548
Email: brichard@empirlabs.com

Original Report Date: April 19, 2011
Report Revision #: N/A
Revision Date: N/A
Total # of Pages: 257

**THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS**

*The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.*

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
The batch spike associated to batch 1D01020 exceeded criteria with a positive bias for Ethylbenzene and Xylene (total).

The continuing calibration verification 1D09404-CCV1 exceeded criteria with a positive bias for Bromofluorobenzene.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8270C:**
No anomalies or deviations are noted.

**FLPRO:**
The surrogate o-Terphenyl exceeded criteria with a negative bias in 1C31015-BLK1 and 1103237-15. The surrogates o-Terphenyl and 2-Fluorobiphenyl exceeded the retention time window in 1D05022-BLK1 and 1103237-14. The result bias due to the retention time shift was determined to be negligible for all affected samples and QC.

No anomalies or deviations are noted. No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8011:**
No anomalies or deviations are noted.

**SW6010C:**
No anomalies or deviations are noted.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

**Analytical Report Terms and Qualifiers**

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.1 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.1 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.1 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE**" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2777 | PAGE 1 OF 2

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Sawfley Field | PROJECT MANAGER Geoff Pope | PHONE NUMBER 850-385-9899 | LABORATORY NAME AND CONTACT: EMPIRICAL Brian Richard |
| SAMPLERS (SIGNATURE) M Brock | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850-294-2830 | ADDRESS 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER 8684 5094 5574 | | CITY, STATE Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG AG AG
PRESERVATIVE USED: MeOH H2O none ice none ice

| | DATE YEAR 2011 | 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 | BTEX | MTBE | PAH | TRPH | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -01 | 3/28 | 0705 | 05-SS-027-0204 | SB027 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | 1m+300 |
| -02 | | 0735 | 05-SS-028-0204 | SB028 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -03 | | 0832 | 05-SS-030-1520 | SB030 | 15 | 20 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| 04 | | 0832 | 05-SS-030-1520-D | SB030 | 15 | 20 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| 05 | | 0850 | 05-SS-031-0204 | SB031 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -06 | | — | TripBlank 9488 | — | | | QC | G | 2 | ✓ | — | — | | | | | | 20Hg |
| -07 | | 0915 | 05-SS-032-0204 | SB032 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | see -01 |
| -08 | | 0945 | 05-SS-033-0204 | SB033 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -09 | | 1010 | 05-SS-034-0204 | SB034 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -10 | | 1025 | 05-SS-035-0204 | SB035 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -11 | | 1055 | 05-SS-036-0204 | SB036 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| ~~-12~~ | ~~3-29-11~~ | | ~~05-SS-029~~ | ~~SB029~~ | | | ~~SO~~ | ~~C~~ | ~~4~~ | ~~✓~~ | ~~✓~~ | ~~✓~~ | ~~ms~~ | | | | | |
| -13 | | 1420 | 05-SS-066-0406 | SB066 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -12 | | | | | | | | | | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY Brock | DATE 3.28.11 | TIME 1700 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY 3.30 | DATE 3-29-11 | TIME 08:45 |

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 2778 | PAGE 2 OF 2

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Saufley Field | PROJECT MANAGER Geoff Pope | PHONE NUMBER 850 385-9899 | LABORATORY NAME AND CONTACT: Empirical, Brian Richard |
| SAMPLERS (SIGNATURE) M Brock | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850 294 2830 | ADDRESS 621 Mainstream Dr STE 270 |
| | | CARRIER/WAYBILL NUMBER 8684 5094 5574 | | CITY, STATE Nashville TN 37228 |

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

| DATE YEAR 2011 | 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 | BTEX, MTBE | PAH | TRPH | EDB | TRPH | PAH | VOCs | Total Pb | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONTAINER TYPE PLASTIC (P) or GLASS (G) | | | | | | | | | CG | AG | AG | CG | AG | AG | CG | P | |
| PRESERVATIVE USED | | | | | | | | | MeOH | $H_2O$ | ice | ice | HCL | HCL | ice | HCL | $HNO_3$ |
| TYPE OF ANALYSIS | | | | | | | | | soil | soil | soil | $H_2O$ | $H_2O$ | $H_2O$ | $H_2O$ | $H_2O$ | $H_2O$ |
| -13 3/28 | 1545 | 05-SS-068-0406 | SB068 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | See -01 |
| -14 3/28 | 1610 | 05-SS-069-0406 | SB069 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| -15 3/28 | 1630 | Equipment Blank 02 | — | — | — | QC | G | 9 | – | – | – | ✓ | ✓ | ✓ | ✓ | ✓ | 4ZJHg+1CUI+2H+2HHg |
| -16 — | — | Trip Blank 9489 | — | — | — | QC | G | 2 | – | – | – | – | – | – | ✓ | Co 3-29-11 | 2JHg |
| | | | | | | | | | | | | | | | | | Temp Blank in coolers |

| | | | | | | |
|---|---|---|---|---|---|---|
| 1. RELINQUISHED BY M Brock | DATE 3.28.11 | TIME 1700 | 1. RECEIVED BY | | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY | 3.5C | DATE 3-29-11 | TIME 08:45 |

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 4/02R

FORM NO. TtNUS-001

10

CTOJM26_003 Summ Package

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103237 Number of Coolers: 1 of 2

Client: Tetra Tech Nus Project: Sanfley Fields

Date/Time Received: 3.29.11 0845 Date cooler(s) opened: 3.29.11

Opened By (print): Reginald Talley (signature): Reginald Talley

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: 9960

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 3.28.11 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: Initial Value: 3.6 °C Correction Factor: -0.3 °C Final Value: 3.3 °C

Dates samples were logged-in: 3-29-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [initials]

| | | | |
|---|---|---|---|
| 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 |

If Non-Conformance issues were present, list by sample ID: _____

· pH 12 overall FLPRO & metals

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103237 Number of Coolers: 2 of 2

Client: Tetra Tech Nus Project: Sanfley Fields

Date/Time Received: 3.29.11 0845 Date cooler(s) opened: 3.29.11

Opened By (print): Reginald Talley (signature): Reginald Talley

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: 5574

2. Were custody seals on outside of cooler(s)? ..... (Yes) No

How many: 2 Seal date: 3.28.11 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: Initial Value: 2.9 °C Correction Factor: -0.3 °C Final Value: 2.6 °C

Dates samples were logged-in:

9. Initial this form to acknowledge login of sample(s): (Name): _____ (Initial): _____
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

If Non-Conformance issues were present, list by sample ID: _____

See 1 of 2

# HOLDING TIME SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-027-0204 | 03/28/11 07:05 | 03/29/11 08:45 | 04/04/11 00:00 | N/A | 14.00 | 04/04/11 13:44 | 7.32 | 14.00 | |
| 05-SS-028-0204 | 03/28/11 07:35 | 03/29/11 08:45 | 04/04/11 00:00 | N/A | 14.00 | 04/04/11 14:09 | 7.32 | 14.00 | |
| 05-SS-030-1520 | 03/28/11 08:32 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/01/11 21:02 | 4.56 | 14.00 | |
| 05-SS-030-1520-D | 03/28/11 08:32 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/01/11 21:26 | 4.58 | 14.00 | |
| 05-SS-031-0204 | 03/28/11 08:50 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/01/11 21:50 | 4.58 | 14.00 | |
| TRIPBLANK 9488 | 03/28/11 00:00 | 03/29/11 08:45 | 03/31/11 00:00 | N/A | 14.00 | 03/31/11 08:46 | 3.41 | 14.00 | |
| 05-SS-032-0204 | 03/28/11 09:15 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/01/11 22:14 | 4.58 | 14.00 | |
| 05-SS-033-0204 | 03/28/11 09:45 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/01/11 22:38 | 4.58 | 14.00 | |
| 05-SS-034-0204 | 03/28/11 10:10 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/01/11 23:03 | 4.58 | 14.00 | |
| 05-SS-035-0204 | 03/28/11 10:25 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/01/11 23:27 | 4.58 | 14.00 | |
| 05-SS-036-0204 | 03/28/11 10:55 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/01/11 23:52 | 4.58 | 14.00 | |
| 05-SS-066-0406 | 03/28/11 14:20 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/02/11 00:16 | 4.46 | 14.00 | |
| 05-SS-068-0406 | 03/28/11 15:45 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/02/11 00:40 | 4.41 | 14.00 | |
| 05-SS-069-0406 | 03/28/11 16:10 | 03/29/11 08:45 | 04/01/11 00:00 | N/A | 14.00 | 04/02/11 01:05 | 4.41 | 14.00 | |
| EQUIPMENT BLANK 02 | 03/28/11 16:30 | 03/29/11 08:45 | 03/31/11 00:00 | N/A | 14.00 | 03/31/11 09:47 | 2.76 | 14.00 | |
| TRIPBLANK 9489 | 03/28/11 00:00 | 03/29/11 08:45 | 03/31/11 00:00 | N/A | 14.00 | 03/31/11 09:16 | 3.43 | 14.00 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09109 | Instrument: | MS-VOA5 |
| | | Calibration: | 1078001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09109-CCV1 ) ug/L** | | | | Lab File ID: 0331CC1.D | | Analyzed: 03/31/11 06:17 | | |
| Bromofluorobenzene | 30.00 | 93.9 | 80 - 120 | 17.657 | 17.657 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 90.4 | 80 - 120 | 11.223 | 11.223 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 92.8 | 80 - 120 | 12.021 | 12.021 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 90.4 | 80 - 120 | 15.341 | 15.341 | 0.0000 | +/-1.000 | |
| **LCS (1C31007-BS1 ) ug/L** | | | | Lab File ID: 0331LS1.D | | Analyzed: 03/31/11 06:48 | | |
| Bromofluorobenzene | 30.00 | 101 | 75 - 120 | 17.663 | 17.657 | 0.0060 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 95.6 | 85 - 115 | 11.228 | 11.223 | 0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 100 | 70 - 120 | 12.017 | 12.021 | -0.0040 | +/-1.000 | |
| Toluene-d8 | 30.00 | 102 | 85 - 120 | 15.338 | 15.341 | -0.0030 | +/-1.000 | |
| **Blank (1C31007-BLK1 ) ug/L** | | | | Lab File ID: 0331BL1.D | | Analyzed: 03/31/11 08:16 | | |
| Bromofluorobenzene | 30.00 | 108 | 75 - 120 | 17.659 | 17.657 | 0.0020 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 103 | 85 - 115 | 11.225 | 11.223 | 0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 100 | 70 - 120 | 12.033 | 12.021 | 0.0120 | +/-1.000 | |
| Toluene-d8 | 30.00 | 106 | 85 - 120 | 15.344 | 15.341 | 0.0030 | +/-1.000 | |
| **TRIPBLANK 9488 (1103237-06 ) ug/L** | | | | Lab File ID: 0323706.D | | Analyzed: 03/31/11 08:46 | | |
| Bromofluorobenzene | 30.00 | 104 | 75 - 120 | 17.658 | 17.657 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 106 | 85 - 115 | 11.223 | 11.223 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 98.7 | 70 - 120 | 12.021 | 12.021 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 104 | 85 - 120 | 15.342 | 15.341 | 0.0010 | +/-1.000 | |
| **TRIPBLANK 9489 (1103237-16 ) ug/L** | | | | Lab File ID: 0323716.D | | Analyzed: 03/31/11 09:16 | | |
| Bromofluorobenzene | 30.00 | 102 | 75 - 120 | 17.659 | 17.657 | 0.0020 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 106 | 85 - 115 | 11.225 | 11.223 | 0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 98.8 | 70 - 120 | 12.023 | 12.021 | 0.0020 | +/-1.000 | |
| Toluene-d8 | 30.00 | 102 | 85 - 120 | 15.344 | 15.341 | 0.0030 | +/-1.000 | |
| **EQUIPMENT BLANK 02 (1103237-15 ) ug/L** | | | | Lab File ID: 0323715.D | | Analyzed: 03/31/11 09:47 | | |
| Bromofluorobenzene | 30.00 | 105 | 75 - 120 | 17.657 | 17.657 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 108 | 85 - 115 | 11.223 | 11.223 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 103 | 70 - 120 | 12.021 | 12.021 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 106 | 85 - 120 | 15.342 | 15.341 | 0.0010 | +/-1.000 | |
| **LCS Dup (1C31007-BSD1 ) ug/L** | | | | Lab File ID: 0331LD1.D | | Analyzed: 03/31/11 17:21 | | |
| Bromofluorobenzene | 30.00 | 102 | 75 - 120 | 17.66 | 17.657 | 0.0030 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 99.8 | 85 - 115 | 11.225 | 11.223 | 0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 99.6 | 70 - 120 | 12.023 | 12.021 | 0.0020 | +/-1.000 | |
| Toluene-d8 | 30.00 | 96.6 | 85 - 120 | 15.344 | 15.341 | 0.0030 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09404 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09404-CCV1 ) ug/L** | | | | Lab File ID: 0401CCVE.D | | Analyzed: 04/01/11 19:01 | | |
| Bromofluorobenzene | 30.00 | 120 | 80 - 120 | 12.246 | 12.246 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 107 | 80 - 120 | 6.925 | 6.925 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 106 | 80 - 120 | 7.417 | 7.417 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 118 | 80 - 120 | 9.63 | 9.63 | 0.0000 | +/-1.000 | |
| **LCS (1D01020-BS1 ) mg/Kg wet** | | | | Lab File ID: 0401LS1E.D | | Analyzed: 04/01/11 19:25 | | |
| Bromofluorobenzene | 0.03000 | 113 | 85 - 120 | 12.245 | 12.246 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 105 | 80 - 125 | 6.924 | 6.925 | -0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 99.3 | 75 - 140 | 7.416 | 7.417 | -0.0010 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 109 | 85 - 115 | 9.629 | 9.63 | -0.0010 | +/-1.000 | |
| **Blank (1D01020-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0401BL1E.D | | Analyzed: 04/01/11 20:38 | | |
| Bromofluorobenzene | 0.03000 | 104 | 85 - 120 | 12.234 | 12.246 | -0.0120 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 107 | 80 - 125 | 6.923 | 6.925 | -0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 115 | 75 - 140 | 7.415 | 7.417 | -0.0020 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 101 | 85 - 115 | 9.628 | 9.63 | -0.0020 | +/-1.000 | |
| **05-SS-030-1520 (1103237-03 ) mg/Kg dry** | | | | Lab File ID: 0323703.D | | Analyzed: 04/01/11 21:02 | | |
| Bromofluorobenzene | 0.04780 | 94.7 | 85 - 120 | 12.242 | 12.246 | -0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.04780 | 108 | 80 - 125 | 6.921 | 6.925 | -0.0040 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04780 | 105 | 75 - 140 | 7.413 | 7.417 | -0.0040 | +/-1.000 | |
| Toluene-d8 | 0.04780 | 107 | 85 - 115 | 9.626 | 9.63 | -0.0040 | +/-1.000 | |
| **05-SS-030-1520-D (1103237-04 ) mg/Kg dry** | | | | Lab File ID: 0323704.D | | Analyzed: 04/01/11 21:26 | | |
| Bromofluorobenzene | 0.03797 | 99.5 | 85 - 120 | 12.241 | 12.246 | -0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03797 | 105 | 80 - 125 | 6.92 | 6.925 | -0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03797 | 107 | 75 - 140 | 7.412 | 7.417 | -0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03797 | 103 | 85 - 115 | 9.625 | 9.63 | -0.0050 | +/-1.000 | |
| **05-SS-031-0204 (1103237-05 ) mg/Kg dry** | | | | Lab File ID: 0323705.D | | Analyzed: 04/01/11 21:50 | | |
| Bromofluorobenzene | 0.05126 | 102 | 85 - 120 | 12.236 | 12.246 | -0.0100 | +/-1.000 | |
| Dibromofluoromethane | 0.05126 | 105 | 80 - 125 | 6.915 | 6.925 | -0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.05126 | 108 | 75 - 140 | 7.417 | 7.417 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.05126 | 103 | 85 - 115 | 9.62 | 9.63 | -0.0100 | +/-1.000 | |
| **05-SS-032-0204 (1103237-07 ) mg/Kg dry** | | | | Lab File ID: 0323707.D | | Analyzed: 04/01/11 22:14 | | |
| Bromofluorobenzene | 0.03833 | 98.2 | 85 - 120 | 12.24 | 12.246 | -0.0060 | +/-1.000 | |
| Dibromofluoromethane | 0.03833 | 105 | 80 - 125 | 6.92 | 6.925 | -0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03833 | 102 | 75 - 140 | 7.411 | 7.417 | -0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03833 | 102 | 85 - 115 | 9.624 | 9.63 | -0.0060 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09404 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-033-0204 (1103237-08 ) mg/Kg dry** | | | | Lab File ID: 0323708.D | | Analyzed: 04/01/11 22:38 | | |
| Bromofluorobenzene | 0.04131 | 97.3 | 85 - 120 | 12.242 | 12.246 | -0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.04131 | 106 | 80 - 125 | 6.931 | 6.925 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04131 | 104 | 75 - 140 | 7.422 | 7.417 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 0.04131 | 103 | 85 - 115 | 9.625 | 9.63 | -0.0050 | +/-1.000 | |
| **05-SS-034-0204 (1103237-09 ) mg/Kg dry** | | | | Lab File ID: 0323709.D | | Analyzed: 04/01/11 23:03 | | |
| Bromofluorobenzene | 0.04200 | 97.9 | 85 - 120 | 12.237 | 12.246 | -0.0090 | +/-1.000 | |
| Dibromofluoromethane | 0.04200 | 107 | 80 - 125 | 6.936 | 6.925 | 0.0110 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04200 | 103 | 75 - 140 | 7.428 | 7.417 | 0.0110 | +/-1.000 | |
| Toluene-d8 | 0.04200 | 102 | 85 - 115 | 9.631 | 9.63 | 0.0010 | +/-1.000 | |
| **05-SS-035-0204 (1103237-10 ) mg/Kg dry** | | | | Lab File ID: 0323710.D | | Analyzed: 04/01/11 23:27 | | |
| Bromofluorobenzene | 0.03962 | 102 | 85 - 120 | 12.235 | 12.246 | -0.0110 | +/-1.000 | |
| Dibromofluoromethane | 0.03962 | 104 | 80 - 125 | 6.924 | 6.925 | -0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03962 | 102 | 75 - 140 | 7.416 | 7.417 | -0.0010 | +/-1.000 | |
| Toluene-d8 | 0.03962 | 104 | 85 - 115 | 9.629 | 9.63 | -0.0010 | +/-1.000 | |
| **05-SS-036-0204 (1103237-11 ) mg/Kg dry** | | | | Lab File ID: 0323711.D | | Analyzed: 04/01/11 23:52 | | |
| Bromofluorobenzene | 0.04020 | 102 | 85 - 120 | 12.237 | 12.246 | -0.0090 | +/-1.000 | |
| Dibromofluoromethane | 0.04020 | 103 | 80 - 125 | 6.926 | 6.925 | 0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04020 | 101 | 75 - 140 | 7.418 | 7.417 | 0.0010 | +/-1.000 | |
| Toluene-d8 | 0.04020 | 103 | 85 - 115 | 9.631 | 9.63 | 0.0010 | +/-1.000 | |
| **05-SS-066-0406 (1103237-12 ) mg/Kg dry** | | | | Lab File ID: 0323712.D | | Analyzed: 04/02/11 00:16 | | |
| Bromofluorobenzene | 0.03820 | 103 | 85 - 120 | 12.237 | 12.246 | -0.0090 | +/-1.000 | |
| Dibromofluoromethane | 0.03820 | 102 | 80 - 125 | 6.916 | 6.925 | -0.0090 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03820 | 98.9 | 75 - 140 | 7.418 | 7.417 | 0.0010 | +/-1.000 | |
| Toluene-d8 | 0.03820 | 101 | 85 - 115 | 9.621 | 9.63 | -0.0090 | +/-1.000 | |
| **05-SS-068-0406 (1103237-13 ) mg/Kg dry** | | | | Lab File ID: 0323713.D | | Analyzed: 04/02/11 00:40 | | |
| Bromofluorobenzene | 0.03525 | 96.6 | 85 - 120 | 12.241 | 12.246 | -0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03525 | 105 | 80 - 125 | 6.92 | 6.925 | -0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03525 | 103 | 75 - 140 | 7.422 | 7.417 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03525 | 106 | 85 - 115 | 9.625 | 9.63 | -0.0050 | +/-1.000 | |
| **05-SS-069-0406 (1103237-14 ) mg/Kg dry** | | | | Lab File ID: 0323714.D | | Analyzed: 04/02/11 01:05 | | |
| Bromofluorobenzene | 0.03547 | 103 | 85 - 120 | 12.235 | 12.246 | -0.0110 | +/-1.000 | |
| Dibromofluoromethane | 0.03547 | 100 | 80 - 125 | 6.924 | 6.925 | -0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03547 | 101 | 75 - 140 | 7.416 | 7.417 | -0.0010 | +/-1.000 | |
| Toluene-d8 | 0.03547 | 100 | 85 - 115 | 9.628 | 9.63 | -0.0020 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09404 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **LCS Dup (1D01020-BSD1 ) mg/Kg wet** | | | | Lab File ID: 0401LD1E.D | | Analyzed: 04/02/11 01:28 | | |
| Bromofluorobenzene | 0.03000 | 105 | 85 - 120 | 12.241 | 12.246 | -0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 104 | 80 - 125 | 6.92 | 6.925 | -0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 101 | 75 - 140 | 7.412 | 7.417 | -0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 103 | 85 - 115 | 9.625 | 9.63 | -0.0050 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09501 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09501-CCV1 ) ug/L** | | | | Lab File ID: 0404CCV1.D | | Analyzed: 04/04/11 08:31 | | |
| Bromofluorobenzene | 30.00 | 118 | 80 - 120 | 12.252 | 12.252 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 102 | 80 - 120 | 6.931 | 6.931 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 95.5 | 80 - 120 | 7.423 | 7.423 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 116 | 80 - 120 | 9.636 | 9.636 | 0.0000 | +/-1.000 | |
| **LCS (1D04008-BS1 ) mg/Kg wet** | | | | Lab File ID: 0404LS1.D | | Analyzed: 04/04/11 09:08 | | |
| Bromofluorobenzene | 0.03000 | 106 | 85 - 120 | 12.246 | 12.252 | -0.0060 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 102 | 80 - 125 | 6.926 | 6.931 | -0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 98.1 | 75 - 140 | 7.427 | 7.423 | 0.0040 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 108 | 85 - 115 | 9.63 | 9.636 | -0.0060 | +/-1.000 | |
| **Blank (1D04008-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0404BL1.D | | Analyzed: 04/04/11 10:22 | | |
| Bromofluorobenzene | 0.03000 | 103 | 85 - 120 | 12.247 | 12.252 | -0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 104 | 80 - 125 | 6.927 | 6.931 | -0.0040 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 119 | 75 - 140 | 7.428 | 7.423 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 101 | 85 - 115 | 9.631 | 9.636 | -0.0050 | +/-1.000 | |
| **05-SS-027-0204 (1103237-01RE1 ) mg/Kg dry** | | | | Lab File ID: 0323701.D | | Analyzed: 04/04/11 13:44 | | |
| Bromofluorobenzene | 0.03838 | 98.7 | 85 - 120 | 12.251 | 12.252 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03838 | 101 | 80 - 125 | 6.941 | 6.931 | 0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03838 | 101 | 75 - 140 | 7.432 | 7.423 | 0.0090 | +/-1.000 | |
| Toluene-d8 | 0.03838 | 101 | 85 - 115 | 9.635 | 9.636 | -0.0010 | +/-1.000 | |
| **05-SS-028-0204 (1103237-02RE1 ) mg/Kg dry** | | | | Lab File ID: 0323702.D | | Analyzed: 04/04/11 14:09 | | |
| Bromofluorobenzene | 0.03777 | 100 | 85 - 120 | 12.243 | 12.252 | -0.0090 | +/-1.000 | |
| Dibromofluoromethane | 0.03777 | 103 | 80 - 125 | 6.923 | 6.931 | -0.0080 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03777 | 102 | 75 - 140 | 7.424 | 7.423 | 0.0010 | +/-1.000 | |
| Toluene-d8 | 0.03777 | 105 | 85 - 115 | 9.627 | 9.636 | -0.0090 | +/-1.000 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C07710 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C07710-TUN1 | 0307TU1.D | 03/07/11 12:22 |
| Cal Standard | 1C07710-CAL1 | 0307CAL1.D | 03/07/11 12:53 |
| Cal Standard | 1C07710-CAL2 | 0307CAL2.D | 03/07/11 13:23 |
| Cal Standard | 1C07710-CAL3 | 0307CAL3.D | 03/07/11 13:53 |
| Cal Standard | 1C07710-CAL4 | 0307CAL4.D | 03/07/11 14:23 |
| Cal Standard | 1C07710-CAL5 | 0307CAL5.D | 03/07/11 14:54 |
| Cal Standard | 1C07710-CAL6 | 0307CAL6.D | 03/07/11 15:24 |
| Cal Standard | 1C07710-CAL7 | 0307CAL7.D | 03/07/11 15:54 |
| Cal Standard | 1C07710-CAL8 | 0307CAL8.D | 03/07/11 16:24 |
| Cal Standard | 1C07710-CAL9 | 0307CAL9.D | 03/07/11 16:54 |
| Initial Cal Check | 1C07710-ICV1 | 0307ICV1.D | 03/07/11 17:25 |
| Initial Cal Check | 1C07710-ICV2 | 0307ICV2.D | 03/07/11 17:55 |
| MS Tune | 1C07710-TUN2 | 0317TU2.D | 03/17/11 18:43 |
| Cal Standard | 1C07710-CALB | 0317CAL2.D | 03/17/11 19:13 |
| Cal Standard | 1C07710-CALC | 0317CAL3.D | 03/17/11 20:14 |
| Cal Standard | 1C07710-CALD | 0317CAL4.D | 03/17/11 20:44 |
| Cal Standard | 1C07710-CALE | 0317CAL5.D | 03/17/11 21:14 |
| Cal Standard | 1C07710-CALF | 0317CAL6.D | 03/17/11 21:44 |
| Cal Standard | 1C07710-CALG | 0317CAL7.D | 03/17/11 22:14 |
| Cal Standard | 1C07710-CALH | 0317CAL8.D | 03/17/11 22:44 |
| Cal Standard | 1C07710-CALI | 0317CAL9.D | 03/17/11 23:15 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0307TU1.D | Injection Date: | 03/07/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 12:22 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 29.7 | PASS |
| 75 | 30 - 60% of 95 | 59.7 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.36 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 73.4 | PASS |
| 175 | 5 - 9% of 174 | 8.34 | PASS |
| 176 | 95 - 101% of 174 | 99.3 | PASS |
| 177 | 5 - 9% of 176 | 6.54 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TU2.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 18:43 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.7 | PASS |
| 75 | 30 - 60% of 95 | 50.9 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.95 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 97.6 | PASS |
| 175 | 5 - 9% of 174 | 8.17 | PASS |
| 176 | 95 - 101% of 174 | 96.9 | PASS |
| 177 | 5 - 9% of 176 | 5.26 | PASS |

# INITIAL CALIBRATION DATA
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 2.501 | 4.202849E-02 | 5.002 | 4.912805E-02 | 10 | 4.589774E-02 | 25.01 | 3.251549E-02 | 50.02 | 3.552824E-02 | 250.1 | 4.184221E-02 |
| Acrylonitrile | 2.499 | 5.545187E-02 | 4.998 | 7.451654E-02 | 9.996 | 7.106185E-02 | 24.99 | 0.0682373 | 49.98 | 6.828281E-02 | 249.9 | 8.161908E-02 |
| Benzene | 0.5 | 0.6530366 | 1 | 0.7225063 | 2 | 0.7201156 | 5 | 0.6816376 | 10 | 0.6954858 | 50 | 0.7910287 |
| Bromobenzene | 0.5 | 0.549701 | 1 | 0.5653215 | 2 | 0.6257115 | 5 | 0.5303183 | 10 | 0.5647184 | 50 | 0.6361531 |
| Bromochloromethane | 0.5 | 0.1057606 | 1 | 0.123257 | 2 | 0.1190287 | 5 | 0.127271 | 10 | 0.1148693 | 50 | 0.1302114 |
| Tert-Amyl Methyl Ether | 0.5 | ~~1.598608~~ | 1 | 1.090158 | 2 | 0.8260847 | 5 | 0.6332337 | 10 | 0.6008392 | 50 | 0.6896912 |
| Bromodichloromethane | 0.5 | 0.3473567 | 1 | 0.3738296 | 2 | 0.4274612 | 5 | 0.3744141 | 10 | 0.3729374 | 50 | 0.4197135 |
| Bromoform | 0.5 | 0.3395406 | 1 | 0.3933789 | 2 | 0.3827047 | 5 | 0.3585994 | 10 | 0.3668502 | 50 | 0.4494797 |
| Bromomethane | 0.5 | ~~0.3339126~~ | 1 | 0.2608612 | 2 | 0.2028232 | 5 | 0.1894378 | 10 | 0.188385 | 50 | 0.2209556 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 0.5 | 1.255296 | 1 | 1.157849 | 2 | 1.426318 | 5 | 1.157857 | 10 | 1.335827 | 50 | 1.584764 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 0.5 | 1.605971 | 1 | 1.719527 | 2 | 1.893229 | 5 | 1.688532 | 10 | 1.794192 | 50 | 2.06856 |
| tert-Butylbenzene | 0.5 | 1.605971 | 1 | 1.7606 | 2 | 1.746774 | 5 | 1.451504 | 10 | 1.473921 | 50 | 1.700813 |
| Carbon disulfide | 0.5 | 0.567741 | 1 | 0.6859014 | 2 | 0.6154258 | 5 | 0.5634893 | 10 | 0.5461005 | 50 | 0.6585375 |
| Carbon tetrachloride | 0.5 | 0.3372985 | 1 | 0.3758977 | 2 | 0.3952787 | 5 | 0.3632524 | 10 | 0.3650022 | 50 | 0.4153075 |
| Chlorobenzene | 0.5 | 1.111502 | 1 | 1.209113 | 2 | 1.239253 | 5 | 1.061227 | 10 | 1.066952 | 50 | 1.15929 |
| Chloroethane | 0.5 | 0.1642675 | 1 | 0.1587503 | 2 | 0.1476798 | 5 | 0.1392525 | 10 | 0.148308 | 50 | 0.1668889 |
| Chloroform | 0.5 | 0.5017652 | 1 | 0.5564144 | 2 | 0.5459435 | 5 | 0.4611848 | 10 | 0.4613822 | 50 | 0.5231686 |
| 2-Chloroethyl vinyl ether | 0.9975 | ~~5.363679E-02~~ | 1.995 | 6.752328E-02 | 3.99 | 9.076441E-02 | 9.975 | 8.626115E-02 | 19.95 | 0.1022495 | 99.75 | 0.1326303 |
| Chloromethane | 0.5 | 0.2942773 | 1 | 0.3005165 | 2 | 0.2887365 | 5 | 0.2728978 | 10 | 0.2720284 | 50 | 0.3033957 |
| 1-Chlorohexane | 0.501 | 1.097595 | 1.002 | 1.012135 | 2.004 | 0.936332 | 5.01 | 0.9217559 | 10.02 | 1.025372 | 50.1 | 1.12813 |
| 2-Chlorotoluene | 0.5 | 1.515348 | 1 | 1.397997 | 2 | 1.557541 | 5 | 1.439761 | 10 | 1.452007 | 50 | 1.635309 |
| 4-Chlorotoluene | 0.5 | 1.318388 | 1 | 1.484549 | 2 | 1.638874 | 5 | 1.516016 | 10 | 1.543591 | 50 | 1.8314 |
| Cyclohexane | 0.5 | 0.2206333 | 1 | 0.2140453 | 2 | 0.2586329 | 5 | 0.2414361 | 10 | 0.2639292 | 50 | 0.3142955 |
| Dibromochloromethane | 0.5 | 0.5052372 | 1 | 0.4633049 | 2 | 0.5005268 | 5 | 0.5110683 | 10 | 0.5275074 | 50 | 0.6261449 |
| 1,2-Dibromo-3-chloropropane | 0.5 | 6.332115E-02 | 1 | 8.807993E-02 | 2 | 0.1177169 | 5 | 0.088725 | 10 | 9.884858E-02 | 50 | 0.1336266 |
| 1,2-Dibromoethane (EDB) | 0.5 | 0.4013586 | 1 | 0.4685921 | 2 | 0.4812981 | 5 | 0.4381936 | 10 | 0.4371352 | 50 | 0.506655 |
| Dibromomethane | 0.5 | 0.1451469 | 1 | 0.1779058 | 2 | 0.2140704 | 5 | 0.1780449 | 10 | 0.1786761 | 50 | 0.2089759 |
| 1,2-Dichlorobenzene | 0.5 | 0.8423319 | 1 | 0.9380307 | 2 | 1.049278 | 5 | 0.8604472 | 10 | 0.9217492 | 50 | 1.049516 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 0.5 | 1.112479 | 1 | 1.115307 | 2 | 1.098572 | 5 | 0.956071 | 10 | 0.9729225 | 50 | 1.103796 |
| 1,4-Dichlorobenzene | 0.5 | 1.158593 | 1 | 1.099266 | 2 | 1.332311 | 5 | 1.080485 | 10 | 1.135327 | 50 | 1.20675 |
| Dichlorodifluoromethane | 0.5 | ~~0.2031559~~ | 1 | 0.2851352 | 2 | 0.2817137 | 5 | 0.2668703 | 10 | 0.3308495 | 50 | 0.3489188 |
| 1,1-Dichloroethane | 0.5 | 0.3854983 | 1 | 0.423334 | 2 | 0.4313391 | 5 | 0.3971104 | 10 | 0.3918833 | 50 | 0.4451532 |
| 1,2-Dichloroethane | 0.5 | 0.4534161 | 1 | 0.5343377 | 2 | 0.5080707 | 5 | 0.474543 | 10 | 0.4663805 | 50 | 0.5333544 |
| 1,1-Dichloroethene | 0.5 | 0.1841349 | 1 | 0.1548726 | 2 | 0.1580342 | 5 | 0.1573192 | 10 | 0.1602801 | 50 | 0.1915411 |
| cis-1,2-Dichloroethene | 0.5 | 0.1785083 | 1 | 0.2166562 | 2 | 0.2079804 | 5 | 0.2065796 | 10 | 0.2021081 | 50 | 0.2421655 |
| trans-1,2-Dichloroethene | 0.5 | 0.1889151 | 1 | 0.2033947 | 2 | 0.2079271 | 5 | 0.1753228 | 10 | 0.1818072 | 50 | 0.2186191 |
| 1,2-Dichloroethene (total) | 1 | 0.1837117 | 2 | 0.2100255 | 4 | 0.2079537 | 10 | 0.1909512 | 20 | 0.1919577 | 100 | 0.2303923 |
| 1,2-Dichloropropane | 0.5 | 0.168948 | 1 | 0.1879359 | 2 | 0.2268768 | 5 | 0.18732 | 10 | 0.2047549 | 50 | 0.2315456 |
| 1,3-Dichloropropane | 0.5 | 0.6575926 | 1 | 0.6980674 | 2 | 0.8082657 | 5 | 0.7240532 | 10 | 0.6862058 | 50 | 0.7566693 |
| 2,2-Dichloropropane | 0.5 | 0.3354064 | 1 | 0.3836529 | 2 | 0.3996096 | 5 | 0.3878091 | 10 | 0.3668844 | 50 | 0.4171759 |
| 1,1-Dichloropropene | 0.5 | 0.2865593 | 1 | 0.2785174 | 2 | 0.2981447 | 5 | 0.268573 | 10 | 0.2936362 | 50 | 0.3550121 |
| cis-1,3-Dichloropropene | 0.5 | ~~0.2853145~~ | 1 | 0.3528387 | 2 | 0.3737703 | 5 | 0.3385224 | 10 | 0.3390344 | 50 | 0.4267643 |
| trans-1,3-Dichloropropene | 0.5 | 0.4846652 | 1 | 0.5558829 | 2 | 0.573596 | 5 | 0.552392 | 10 | 0.6471858 | 50 | 0.7812347 |
| Diisopropyl Ether | 0.5 | | 1 | 0.5630839 | 2 | 0.6222887 | 5 | 0.5963593 | 10 | 0.6386277 | 50 | 0.8195299 |
| Ethylbenzene | 0.5 | 1.513777 | 1 | 1.764011 | 2 | 1.821805 | 5 | 1.720226 | 10 | 1.783079 | 50 | 2.025284 |
| Ethyl tert-Butyl Ether | 0.5 | ~~0.4837401~~ | 1 | 0.533252 | 2 | 0.5360156 | 5 | 0.5875992 | 10 | 0.6570009 | 50 | 0.77559 |
| Ethyl Methacrylate | 0.5 | ~~0.3472806~~ | 1 | 0.3283255 | 2 | 0.4147087 | 5 | 0.4343821 | 10 | 0.4829659 | 50 | 0.6092486 |
| Hexachlorobutadiene | 0.5 | ~~0.1803276~~ | 1 | 0.3610161 | 2 | 0.3366699 | 5 | 0.2756972 | 10 | 0.2860133 | 50 | 0.317731 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 0.5 | 0.2073883 | 1 | 0.2101418 | 2 | 0.269427 | 5 | 0.2611686 | 10 | 0.2970676 | 50 | 0.3910659 |
| Isopropylbenzene | 0.5 | ~~1.044897~~ | 1 | 1.245864 | 2 | 1.4504 | 5 | 1.370257 | 10 | 1.398715 | 50 | 1.667963 |
| p-Isopropyltoluene | 0.5 | 0.8871844 | 1 | 1.160669 | 2 | 1.272723 | 5 | 1.045097 | 10 | 1.229134 | 50 | 1.400642 |
| Methylene chloride | 0.5 | 0.244534 | 1 | 0.2535454 | 2 | 0.2563674 | 5 | 0.2239895 | 10 | 0.2033621 | 50 | 0.2542167 |
| Methyl Acetate | 0.5 | | 1 | 0.2345451 | 2 | 0.216629 | 5 | 0.1838885 | 10 | 0.1831722 | 50 | 0.2121993 |
| Methylcyclohexane | 0.5 | 0.1914047 | 1 | 0.2351396 | 2 | 0.2372178 | 5 | 0.2240788 | 10 | 0.2424172 | 50 | 0.286189 |
| Naphthalene | 0.5 | ~~0.8169805~~ | 1 | 0.81305 | 2 | 0.8881873 | 5 | 0.9747024 | 10 | 1.113737 | 50 | 1.41024 |
| Methyl Methacrylate | 0.5 | ~~0.1152213~~ | 1 | 0.1414302 | 2 | 0.1646306 | 5 | 0.1650073 | 10 | 0.1929139 | 50 | 0.2643784 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 0.5 | ~~0.3712574~~ | 1 | 0.5175347 | 2 | 0.5668921 | 5 | 0.5123423 | 10 | 0.5433326 | 50 | 0.6560853 |

# INITIAL CALIBRATION DATA
## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_003
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1078001
Instrument: MS-VOA5
Matrix: Water
Calibration Dates: 3/7/11 12:53 3/17/11 23:15

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 0.5 | 1.916612 | 1 | 1.97225 | 2 | 2.410713 | 5 | 2.088476 | 10 | 2.223762 | 50 | 2.522939 |
| Styrene | 0.5 | 0.6770443 | 1 | 0.7968657 | 2 | 0.9376251 | 5 | 0.9650893 | 10 | 1.043912 | 50 | 1.211562 |
| 1,1,2,2-Tetrachloroethane | 0.5 | 0.5384592 | 1 | 0.6360675 | 2 | 0.7431904 | 5 | 0.5442388 | 10 | 0.6085617 | 50 | 0.6675579 |
| 1,1,1,2-Tetrachloroethane | 0.5 | 0.45452 | 1 | 0.4771967 | 2 | 0.5059003 | 5 | 0.434704 | 10 | 0.4626439 | 50 | 0.4937243 |
| tert-Butyl alcohol | 2.5 | 1.783589E-02 | 5 | 2.238686E-02 | 10 | 2.320073E-02 | 25 | 2.129539E-02 | 50 | 2.269986E-02 | 250 | 2.659937E-02 |
| Tetrachloroethene | 0.5 | 0.4222361 | 1 | 0.4719095 | 2 | 0.4799547 | 5 | 0.4068502 | 10 | 0.4320685 | 50 | 0.4867327 |
| Toluene | 0.5 | 0.8970227 | 1 | 0.8561654 | 2 | 0.9635708 | 5 | 0.8794404 | 10 | 0.870273 | 50 | 0.9729753 |
| 1,2,3-Trichlorobenzene | 0.5 | 0.4409538 | 1 | 0.4929891 | 2 | 0.4516201 | 5 | 0.4558933 | 10 | 0.4719025 | 50 | 0.5739709 |
| 1,2,4-Trichlorobenzene | 0.5 | ~~0.4700907~~ | 1 | 0.5186668 | 2 | 0.5691586 | 5 | 0.4730288 | 10 | 0.5158334 | 50 | 0.6525275 |
| 1,1,2-Trichloroethane | 0.5 | 0.2867865 | 1 | 0.3314874 | 2 | 0.3915552 | 5 | 0.3359903 | 10 | 0.3425208 | 50 | 0.3653537 |
| 1,1,1-Trichloroethane | 0.5 | 0.3788758 | 1 | 0.4498053 | 2 | 0.4136953 | 5 | 0.3982298 | 10 | 0.4053592 | 50 | 0.4596763 |
| Tetrahydrofuran | 0.5 | | 1 | | 2 | 3.503431E-02 | 5 | 4.005893E-02 | 10 | 4.094744E-02 | 50 | 5.213498E-02 |
| Trichloroethene | 0.5 | 0.2230233 | 1 | 0.2314171 | 2 | 0.2368847 | 5 | 0.2277363 | 10 | 0.2250709 | 50 | 0.2626272 |
| Trichlorofluoromethane | 0.5 | 0.5036573 | 1 | 0.5102706 | 2 | 0.5224896 | 5 | 0.4893201 | 10 | 0.45786 | 50 | 0.512485 |
| 1,2,3-Trichloropropane | 0.5 | 0.1740477 | 1 | 0.1758257 | 2 | 0.1744547 | 5 | 0.1433401 | 10 | 0.1569296 | 50 | 0.1778811 |
| 1,3,5-Trimethylbenzene | 0.5 | 1.38515 | 1 | 1.394001 | 2 | 1.590086 | 5 | 1.488164 | 10 | 1.517113 | 50 | 1.732998 |
| 1,2,4-Trimethylbenzene | 0.5 | 1.319305 | 1 | 1.417153 | 2 | 1.589194 | 5 | 1.454183 | 10 | 1.605423 | 50 | 1.792477 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 0.5 | 0.24309 | 1 | 0.2724683 | 2 | 0.2760501 | 5 | 0.2216615 | 10 | 0.2130937 | 50 | 0.2434672 |
| Vinyl chloride | 0.5 | 0.2372642 | 1 | 0.3159495 | 2 | 0.2648295 | 5 | 0.2373792 | 10 | 0.2787096 | 50 | 0.3091784 |
| m,p-Xylene | 1 | 1.203261 | 2 | 1.345518 | 4 | 1.519229 | 10 | 1.462656 | 20 | 1.42931 | 100 | 1.589696 |
| o-Xylene | 0.5 | 1.27231 | 1 | 1.368351 | 2 | 1.604257 | 5 | 1.495059 | 10 | 1.554475 | 50 | 1.717049 |
| Vinyl acetate | 0.9995 | | 1.999 | | 3.998 | 0.1791523 | 9.995 | 0.1819274 | 19.99 | 0.2249437 | 99.95 | 0.3163395 |
| Xylenes (total) | 1.5 | 1.226277 | 3 | 1.353129 | 6 | 1.547571 | 15 | 1.473457 | 30 | 1.471032 | 150 | 1.632147 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 2.5 | | 5 | | 10 | 8.339471E-03 | 25 | 8.548847E-03 | 50 | 9.289561E-03 | 250 | 1.321119E-02 |
| tert-Amyl ethyl ether | 0.5 | ~~0.3347591~~ | 1 | 0.4084956 | 2 | 0.4769143 | 5 | 0.4622831 | 10 | 0.4859446 | 50 | 0.6251876 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | 2 | | 4 | 0.1155431 |
| Acrolein | 500.2 | 4.537999E-02 | 750.3 | 4.671631E-02 | 1000 | 4.647195E-02 | | | | | | |
| Acrylonitrile | 499.8 | 8.020876E-02 | 749.7 | 8.652166E-02 | 999.6 | 8.833622E-02 | | | | | | |
| Benzene | 100 | 0.7898222 | 150 | 0.7975283 | 200 | 0.8063745 | | | | | | |
| Bromobenzene | 100 | 0.6187025 | 150 | 0.6222701 | 200 | 0.6471744 | | | | | | |
| Bromochloromethane | 100 | 0.1294359 | 150 | 0.1325201 | 200 | 0.1344625 | | | | | | |
| Tert-Amyl Methyl Ether | 100 | 0.6948232 | 150 | 0.6950278 | 200 | 0.6956089 | | | | | | |
| Bromodichloromethane | 100 | 0.4247199 | 150 | 0.4042228 | 200 | 0.3963136 | | | | | | |
| Bromoform | 100 | 0.4154828 | 150 | 0.4102604 | 200 | 0.3871125 | | | | | | |
| Bromomethane | 100 | 0.2492772 | 150 | 0.2501447 | 200 | 0.2481988 | | | | | | |
| Bromofluorobenzene | | | | | | | | | 30 | 0.8943864 | 40 | 0.8782409 |
| n-Butylbenzene | 100 | 1.514347 | 150 | 1.485248 | 200 | 1.486304 | | | | | | |
| 2-Butanone | | | | | | | | | 2 | | 4 | 6.401813E-02 |
| sec-Butylbenzene | 100 | 1.977237 | 150 | 1.94332 | 200 | 1.912932 | | | | | | |
| tert-Butylbenzene | 100 | 1.637947 | 150 | 1.616132 | 200 | 1.587974 | | | | | | |
| Carbon disulfide | 100 | 0.6709351 | 150 | 0.6913621 | 200 | 0.7122962 | | | | | | |
| Carbon tetrachloride | 100 | 0.4094476 | 150 | 0.3886809 | 200 | 0.3728976 | | | | | | |
| Chlorobenzene | 100 | 1.03645 | 150 | 1.013713 | 200 | 0.9655527 | | | | | | |
| Chloroethane | 100 | 0.1746583 | 150 | 0.1771378 | 200 | 0.1705082 | | | | | | |
| Chloroform | 100 | 0.5251731 | 150 | 0.5097682 | 200 | 0.4914869 | | | | | | |
| 2-Chloroethyl vinyl ether | 199.5 | 0.1412735 | 299.2 | 0.1437648 | 399 | 0.1429149 | | | | | | |
| Chloromethane | 100 | 0.3297665 | 150 | 0.3154371 | 200 | 0.3056923 | | | | | | |
| 1-Chlorohexane | 100.2 | 1.026593 | 150.3 | 0.9894423 | 200.4 | 0.9174486 | | | | | | |
| 2-Chlorotoluene | 100 | 1.608016 | 150 | 1.519558 | 200 | 1.582697 | | | | | | |
| 4-Chlorotoluene | 100 | 1.719894 | 150 | 1.625306 | 200 | 1.61196 | | | | | | |
| Cyclohexane | 100 | 0.3215786 | 150 | 0.332662 | 200 | 0.331074 | | | | | | |
| Dibromochloromethane | 100 | 0.5619766 | 150 | 0.5509758 | 200 | 0.500646 | | | | | | |
| 1,2-Dibromo-3-chloropropane | 100 | 0.1349941 | 150 | 0.1374441 | 200 | 0.1449123 | | | | | | |
| 1,2-Dibromoethane (EDB) | 100 | 0.4667893 | 150 | 0.4505717 | 200 | 0.4302985 | | | | | | |
| Dibromomethane | 100 | 0.2059913 | 150 | 0.2000632 | 200 | 0.1976889 | | | | | | |
| 1,2-Dichlorobenzene | 100 | 1.031498 | 150 | 1.016431 | 200 | 1.025431 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 100 | 1.108741 | 150 | 1.130816 | 200 | 1.128786 | | | | | | |
| 1,4-Dichlorobenzene | 100 | 1.134239 | 150 | 1.118917 | 200 | 1.115377 | | | | | | |
| Dichlorodifluoromethane | 100 | 0.3528406 | 150 | 0.3374166 | 200 | 0.2987596 | | | | | | |
| 1,1-Dichloroethane | 100 | 0.4745472 | 150 | 0.4731673 | 200 | 0.4769946 | | | | | | |
| 1,2-Dichloroethane | 100 | 0.5198466 | 150 | 0.5000919 | 200 | 0.4722982 | | | | | | |
| 1,1-Dichloroethene | 100 | 0.193752 | 150 | 0.1997432 | 200 | 0.2021713 | | | | | | |
| cis-1,2-Dichloroethene | 100 | 0.2478902 | 150 | 0.248514 | 200 | 0.2531567 | | | | | | |
| trans-1,2-Dichloroethene | 100 | 0.222446 | 150 | 0.2329343 | 200 | 0.2379576 | | | | | | |
| 1,2-Dichloroethene (total) | 200 | 0.2351681 | 300 | 0.2407242 | 400 | 0.2455572 | | | | | | |
| 1,2-Dichloropropane | 100 | 0.2367122 | 150 | 0.2358734 | 200 | 0.2448404 | | | | | | |
| 1,3-Dichloropropane | 100 | 0.6937736 | 150 | 0.6752094 | 200 | 0.6407095 | | | | | | |
| 2,2-Dichloropropane | 100 | 0.4166805 | 150 | 0.3912986 | 200 | 0.3899277 | | | | | | |
| 1,1-Dichloropropene | 100 | 0.3616764 | 150 | 0.3541348 | 200 | 0.3561577 | | | | | | |
| cis-1,3-Dichloropropene | 100 | 0.4507282 | 150 | 0.4365991 | 200 | 0.4359175 | | | | | | |
| trans-1,3-Dichloropropene | 100 | 0.7237757 | 150 | 0.7100555 | 200 | 0.6640482 | | | | | | |
| Diisopropyl Ether | 100 | 0.8578372 | 150 | 0.898002 | 200 | 0.9225843 | | | | | | |
| Ethylbenzene | 100 | 1.819871 | 150 | 1.71527 | 200 | 1.537014 | | | | | | |
| Ethyl tert-Butyl Ether | 100 | 0.7863012 | 150 | 0.7939053 | 200 | 0.8125347 | | | | | | |
| Ethyl Methacrylate | 100 | 0.5617984 | 150 | 0.5650667 | 200 | 0.5395296 | | | | | | |
| Hexachlorobutadiene | 100 | 0.3289285 | 150 | 0.3234147 | 200 | 0.3372599 | | | | | | |
| 2-Hexanone | | | | | | | | | 2 | 9.931979E-02 | 4 | 0.1971067 |
| Iodomethane | 100 | 0.4042131 | 150 | 0.4078242 | 200 | 0.4056416 | | | | | | |
| Isopropylbenzene | 100 | 1.531807 | 150 | 1.427509 | 200 | 1.304044 | | | | | | |
| p-Isopropyltoluene | 100 | 1.393249 | 150 | 1.365565 | 200 | 1.374954 | | | | | | |
| Methylene chloride | 100 | 0.241731 | 150 | 0.2603899 | 200 | 0.2635829 | | | | | | |
| Methyl Acetate | 100 | 0.2061918 | 150 | 0.2117359 | 200 | 0.2189216 | | | | | | |
| Methylcyclohexane | 100 | 0.2844625 | 150 | 0.2852673 | 200 | 0.2853802 | | | | | | |
| Naphthalene | 100 | 1.448814 | 150 | 1.409495 | 200 | 1.471859 | | | | | | |
| Methyl Methacrylate | 100 | 0.2787233 | 150 | 0.272668 | 200 | 0.2706149 | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | | | 2 | | 4 | 0.1396502 |
| Methyl t-Butyl Ether | 100 | 0.6704206 | 150 | 0.6770861 | 200 | 0.698072 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 100 | 2.427719 | 150 | 2.308448 | 200 | 2.263217 | | | | | | |
| Styrene | 100 | 1.140643 | 150 | 1.106706 | 200 | 1.030568 | | | | | | |
| 1,1,2,2-Tetrachloroethane | 100 | 0.6422802 | 150 | 0.6337047 | 200 | 0.6704276 | | | | | | |
| 1,1,1,2-Tetrachloroethane | 100 | 0.4536149 | 150 | 0.44524 | 200 | 0.4120404 | | | | | | |
| tert-Butyl alcohol | 500 | 2.620594E-02 | 750 | 2.767036E-02 | 1000 | 2.705806E-02 | | | | | | |
| Tetrachloroethene | 100 | 0.4505318 | 150 | 0.4445511 | 200 | 0.429221 | | | | | | |
| Toluene | 100 | 0.9009451 | 150 | 0.9079673 | 200 | 0.8388243 | | | | | | |
| 1,2,3-Trichlorobenzene | 100 | 0.5977418 | 150 | 0.6131081 | 200 | 0.6371271 | | | | | | |
| 1,2,4-Trichlorobenzene | 100 | 0.6614652 | 150 | 0.6722719 | 200 | 0.7168659 | | | | | | |
| 1,1,2-Trichloroethane | 100 | 0.337697 | 150 | 0.3297807 | 200 | 0.3079286 | | | | | | |
| 1,1,1-Trichloroethane | 100 | 0.4583119 | 150 | 0.4384645 | 200 | 0.4238678 | | | | | | |
| Tetrahydrofuran | 100 | 5.828799E-02 | 150 | 6.028031E-02 | 200 | 6.453969E-02 | | | | | | |
| Trichloroethene | 100 | 0.2636737 | 150 | 0.2625535 | 200 | 0.2516278 | | | | | | |
| Trichlorofluoromethane | 100 | 0.5165366 | 150 | 0.4953456 | 200 | 0.4562709 | | | | | | |
| 1,2,3-Trichloropropane | 100 | 0.1575376 | 150 | 0.1524221 | 200 | 0.1404905 | | | | | | |
| 1,3,5-Trimethylbenzene | 100 | 1.708823 | 150 | 1.649211 | 200 | 1.664883 | | | | | | |
| 1,2,4-Trimethylbenzene | 100 | 1.737568 | 150 | 1.686073 | 200 | 1.68656 | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 100 | 0.2473752 | 150 | 0.2455076 | 200 | 0.2358224 | | | | | | |
| Vinyl chloride | 100 | 0.3415414 | 150 | 0.3362422 | 200 | 0.3317518 | | | | | | |
| m,p-Xylene | 200 | 1.390881 | 300 | 1.283565 | 400 | 1.071972 | | | | | | |
| o-Xylene | 100 | 1.555729 | 150 | 1.421142 | 200 | 1.29972 | | | | | | |
| Vinyl acetate | 199.9 | 0.3335789 | 299.8 | 0.3433023 | 399.8 | 0.3564856 | | | | | | |
| Xylenes (total) | 300 | 1.44583 | 450 | 1.329424 | 600 | 1.147888 | | | | | | |
| Dibromofluoromethane | | | | | | | | | 30 | 0.3730294 | 40 | 0.3738719 |
| 1,2-Dichloroethane-d4 | | | | | | | | | 30 | 6.304818E-02 | 40 | 6.610084E-02 |
| Toluene-d8 | | | | | | | | | 30 | 1.85378 | 40 | 1.798374 |
| tert-Amyl alcohol | 500 | 0.0139922 | 750 | 1.536187E-02 | 1000 | 1.609601E-02 | | | | | | |
| tert-Amyl ethyl ether | 100 | 0.6394152 | 150 | 0.6326191 | 200 | 0.6363716 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 10 | 0.1048318 | 20 | 9.745761E-02 | 100 | 0.1115843 | 200 | 0.1184698 | 300 | 0.1226784 | 400 | 0.1175419 |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 50 | 0.8294758 | 60 | 0.8149449 | 70 | 0.8209916 | 30 | 0.9150239 | 30 | 0.9047329 | 30 | 0.8621954 |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 10 | 0.0744542 | 20 | 0.0793158 | 100 | 0.112114 | 200 | 0.1218397 | 300 | 0.1308349 | 400 | 0.1304908 |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 10 | 0.2586601 | 20 | 0.2502352 | 100 | 0.3584986 | 200 | 0.3739308 | 300 | 0.3917018 | 400 | 0.3732671 |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 10 | 0.1703839 | 20 | 0.1857293 | 100 | 0.2665153 | 200 | 0.2763331 | 300 | 0.2894801 | 400 | 0.2760566 |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 50 | 0.3650414 | 60 | 0.3566546 | 70 | 0.3579211 | 30 | 0.3959409 | 30 | 0.3860029 | 30 | 0.3868698 |
| 1,2-Dichloroethane-d4 | 50 | 6.471363E-02 | 60 | 6.077214E-02 | 70 | 6.252823E-02 | 30 | 6.261071E-02 | 30 | 6.597527E-02 | 30 | 6.830528E-02 |
| Toluene-d8 | 50 | 1.680284 | 60 | 1.720643 | 70 | 1.747087 | 30 | 1.916527 | 30 | 1.804347 | 30 | 1.81239 |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.1125867 | 7.775212 | 6.244286 | 0.1071381 | | | 15 | |
| Acrolein | 4.283427E-02 | 12.92662 | 6.061 | 9.119184E-02 | | | 15 | |
| Acrylonitrile | 7.491512E-02 | 13.92187 | 7.023556 | 3.951867E-02 | | | 15 | |
| Benzene | 0.7397262 | 7.773478 | 12.87444 | 3.353187E-02 | | | 15 | |
| Bromobenzene | 0.5955634 | 7.196348 | 17.832 | 2.354569E-02 | | | 15 | |
| Bromochloromethane | 0.1240907 | 7.549579 | 10.87744 | 7.156777E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7406833 | 20.99942 | 13.17687 | 5.183132E-02 | 0.9999422 | | 0.995 | |
| Bromodichloromethane | 0.393441 | 7.099255 | 13.80056 | 3.837247E-02 | | | 15 | |
| Bromoform | 0.3892677 | 8.488098 | 17.10711 | 1.904145E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2262604 | 13.09668 | 5.114 | 0.1004568 | | | 15 | |
| Bromofluorobenzene | 0.864999 | 4.547677 | 17.648 | 1.998807E-02 | | | 15 | |
| n-Butylbenzene | 1.378201 | 11.49175 | 19.04511 | 1.294924E-02 | | | 15 | |
| 2-Butanone | 0.1018668 | 27.92435 | 10.211 | 0.2192854 | 0.9987152 | | 0.995 | |
| sec-Butylbenzene | 1.844833 | 8.220999 | 18.57544 | 1.160729E-02 | | | 15 | |
| tert-Butylbenzene | 1.620182 | 6.67833 | 18.70456 | 1.990774E-02 | | | 15 | |
| Carbon disulfide | 0.6346432 | 9.888999 | 7.626889 | 8.141692E-02 | | | 15 | |
| Carbon tetrachloride | 0.3803403 | 6.452072 | 12.83711 | 3.700651E-02 | | | 15 | |
| Chlorobenzene | 1.095895 | 8.347511 | 16.69756 | 2.251491E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.1608279 | 8.222484 | 5.294667 | 9.353293E-02 | | | 15 | |
| Chloroform | 0.5084763 | 6.591338 | 10.98578 | 4.276434E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1134227 | 26.69582 | 14.347 | 3.374881E-02 | 0.9997447 | | 0.995 | |
| Chloromethane | 0.2980831 | 6.289672 | 4.365 | 0.188516 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.006089 | 7.388747 | 16.64067 | 2.133492E-02 | | | 15 | |
| 2-Chlorotoluene | 1.523137 | 5.306558 | 18.04867 | 2.098941E-02 | | | 15 | |
| 4-Chlorotoluene | 1.587775 | 9.227864 | 18.10889 | 1.213713E-02 | | | 15 | |
| Cyclohexane | 0.2775874 | 17.23492 | 12.74089 | 2.177786E-02 | 0.9997448 | | 0.995 | |
| Dibromochloromethane | 0.5274875 | 8.943849 | 15.70911 | 2.530325E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1119632 | 25.2941 | 19.43156 | 3.067344E-02 | 0.9986619 | | 0.995 | |
| 1,2-Dibromoethane (EDB) | 0.4534325 | 6.873208 | 15.93667 | 2.316429E-02 | | | 15 | |
| Dibromomethane | 0.1896182 | 11.46889 | 13.63856 | 2.978158E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 0.9705237 | 8.407707 | 19.03511 | 2.694366E-03 | | | 15 | |
| 1,3-Dichlorobenzene | 1.080832 | 6.190879 | 18.67178 | 1.189958E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 | | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | | |
| Calibration: | 1078001 | Instrument: | MS-VOA5 | | |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 | 3/17/11 23:15 | |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.153474 | 6.60659 | 18.72089 | 8.928354E-03 | | | 15 | |
| Dichlorodifluoromethane | 0.312813 | 10.72439 | 4.119 | 9.264489E-02 | | | 15 | |
| 1,1-Dichloroethane | 0.4332253 | 8.462878 | 9.104889 | 6.797151E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.4958155 | 6.096188 | 12.131 | 3.325407E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.1779832 | 11.23937 | 6.967667 | 0.1020339 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2226177 | 11.77531 | 10.56189 | 0.0539483 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2077027 | 10.73761 | 8.525556 | 6.283411E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2151602 | 10.90176 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2138675 | 12.72516 | 13.69356 | 2.877113E-02 | 0.9994699 | | CCC (20) | |
| 1,3-Dichloropropane | 0.7045052 | 7.35678 | 15.46267 | 3.084139E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.387605 | 6.483752 | 11.15322 | 4.720791E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.3169346 | 12.22384 | 12.60622 | 4.157777E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3942719 | 12.15062 | 14.59088 | 1.900144E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.6325373 | 15.33703 | 15.05978 | 2.420188E-02 | 0.996921 | | 0.995 | |
| Diisopropyl Ether | 0.7397891 | 20.08696 | 10.34763 | 4.918967E-02 | 0.9988929 | | 0.995 | |
| Ethylbenzene | 1.744482 | 8.836318 | 16.84989 | 7.809333E-03 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.6852749 | 17.62275 | 11.194 | 5.283168E-02 | 0.9997283 | | 0.995 | |
| Ethyl Methacrylate | 0.4920032 | 19.18719 | 15.50875 | 1.084665E-02 | 0.9984347 | | 0.995 | |
| Hexachlorobutadiene | 0.3208413 | 8.710181 | 21.0895 | 1.924166E-02 | | | 15 | |
| 2-Hexanone | 0.28784 | 36.32521 | 15.62175 | 0.0320628 | 0.9989233 | | 0.995 | |
| Iodomethane | 0.3171042 | 26.94596 | 7.022444 | 9.520778E-02 | 0.9998641 | | 0.995 | |
| Isopropylbenzene | 1.42457 | 9.248017 | 17.611 | 1.726366E-02 | | | 15 | |
| p-Isopropyltoluene | 1.23658 | 14.38435 | 18.40356 | 2.441437E-02 | | | 15 | |
| Methylene chloride | 0.2446354 | 7.987041 | 7.210778 | 6.620158E-02 | | | 15 | |
| Methyl Acetate | 0.2084104 | 8.369294 | 7.26575 | 5.467954E-02 | | | 15 | |
| Methylcyclohexane | 0.2523952 | 13.64479 | 14.39522 | 2.265609E-02 | | | 15 | |
| Naphthalene | 1.191261 | 23.06464 | 21.05987 | 0.0200552 | 0.9993743 | | 0.995 | |
| Methyl Methacrylate | 0.2187958 | 26.61596 | 14.03787 | 3.704044E-02 | 0.9996399 | | 0.995 | |
| 4-Methyl-2-pentanone | 0.2291641 | 26.90628 | 14.72129 | 3.572917E-02 | 0.998877 | | 0.995 | |
| Methyl t-Butyl Ether | 0.6052207 | 12.8349 | 8.8215 | 8.072976E-02 | | | 15 | |
| n-Propylbenzene | 2.237126 | 9.337395 | 17.95567 | 1.994119E-02 | | | 15 | |
| Styrene | 0.9900017 | 17.07341 | 17.26711 | 2.496185E-02 | 0.9965055 | | 0.995 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6316098 | 10.04922 | 17.33711 | 2.899413E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.4599538 | 6.327214 | 16.63844 | 0.0277822 | | | 15 | |
| tert-Butyl alcohol | 2.388361E-02 | 13.61304 | 6.978556 | 0.1148859 | | | 15 | |
| Tetrachloroethene | 0.4471173 | 6.159571 | 16.11311 | 2.040489E-02 | | | 15 | |
| Toluene | 0.898576 | 5.037505 | 15.40022 | 1.146996E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.5261452 | 14.88703 | 21.32 | 1.886098E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.5974773 | 14.98863 | 20.7705 | 1.201415E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.3365667 | 8.950328 | 15.214 | 1.611987E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.4251429 | 6.687853 | 12.30511 | 4.576472E-02 | | | 15 | |
| Tetrahydrofuran | 5.018338E-02 | 22.93539 | 11.61686 | 9.895117E-02 | 0.9967826 | | 0.995 | |
| Trichloroethene | 0.2427349 | 7.126407 | 13.76456 | 0.0129328 | | | 15 | |
| Trichlorofluoromethane | 0.4960262 | 4.904978 | 6.104889 | 0.1074519 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1614366 | 9.000469 | 17.44544 | 3.217736E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.570048 | 8.309352 | 18.16144 | 1.721281E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.587548 | 10.03676 | 18.48033 | 3.047003E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2442818 | 8.405401 | 7.325778 | 7.810021E-02 | | | 15 | |
| Vinyl chloride | 0.2947606 | 14.0323 | 4.588555 | 0.1334175 | 0.9995107 | | CCC (20) | |
| m,p-Xylene | 1.366232 | 11.79195 | 17.00411 | 0.0168046 | | | 15 | |
| o-Xylene | 1.476455 | 10.00571 | 17.32733 | 2.448285E-02 | | | 15 | |
| Vinyl acetate | 0.2765328 | 28.3144 | 9.427714 | 0.103809 | 0.9990022 | | 0.995 | |
| Xylenes (total) | 1.402973 | 10.95705 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3744165 | 3.817796 | 11.19738 | 3.515222E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 6.425678E-02 | 3.823514 | 11.99925 | 2.523171E-02 | | | 15 | |
| Toluene-d8 | 1.791679 | 4.193785 | 15.32337 | 1.566914E-02 | | | 15 | |
| tert-Amyl alcohol | 1.211988E-02 | 27.37991 | 11.86886 | 4.178914E-02 | 0.9964038 | | 0.995 | |
| tert-Amyl ethyl ether | 0.5459039 | 17.64679 | 14.268 | 2.379276E-02 | 0.9999014 | | 0.995 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0307ICV1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV1 | Injection Time: | 17:25 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 50.00 | 59.48 | 0.7397262 | 0.8799265 | | 19.0 | 20 |
| Methyl t-Butyl Ether | A | 50.00 | 53.21 | 0.6052207 | 0.6440646 | | 6.4 | 20 |
| Xylenes (total) | A | 150.0 | 178.2 | 1.402973 | 1.666436 | | 18.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.02 | 0.864999 | 0.8654822 | | 0.06 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.13 | 0.3744165 | 0.3515641 | | -6.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.21 | 6.425678E-02 | 6.471411E-02 | | 0.7 | 20 |
| Toluene-d8 | A | 30.00 | 31.54 | 1.791679 | 1.883703 | | 5.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0307ICV2.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV2 | Injection Time: | 17:55 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Ethylbenzene | A | 100.0 | 110.5 | 1.744482 | 1.927945 | | 10.5 | 20 |
| Toluene | A | 100.0 | 114.8 | 0.898576 | 1.031524 | | 14.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09109 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09109-TUN1 | 0331TU1.D | 03/31/11 05:47 |
| Calibration Check | 1D09109-CCV1 | 0331CC1.D | 03/31/11 06:17 |
| LCS | 1C31007-BS1 | 0331LS1.D | 03/31/11 06:48 |
| Blank | 1C31007-BLK1 | 0331BL1.D | 03/31/11 08:16 |
| TRIPBLANK 9488 | 1103237-06 | 0323706.D | 03/31/11 08:46 |
| TRIPBLANK 9489 | 1103237-16 | 0323716.D | 03/31/11 09:16 |
| EQUIPMENT BLANK 02 | 1103237-15 | 0323715.D | 03/31/11 09:47 |
| LCS Dup | 1C31007-BSD1 | 0331LD1.D | 03/31/11 17:21 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C31007 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| TRIPBLANK 9488 | 1103237-06 | 03/31/11 00:00 | 5.00 | 5.00 |
| EQUIPMENT BLANK 02 | 1103237-15 | 03/31/11 00:00 | 5.00 | 5.00 |
| TRIPBLANK 9489 | 1103237-16 | 03/31/11 00:00 | 5.00 | 5.00 |
| Blank | 1C31007-BLK1 | 03/31/11 00:00 | 5.00 | 5.00 |
| LCS | 1C31007-BS1 | 03/31/11 00:00 | 5.00 | 5.00 |
| LCS Dup | 1C31007-BSD1 | 03/31/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C31007-BLK1 | File ID: | 0331BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 03/31/11 08:16 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1C31007 Sequence: 1D09109 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 32.42 | 108 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.83 | 103 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.06 | 100 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.70 | 106 | 85 - 120 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C31007 | Laboratory ID: | 1C31007-BS1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 50.00 | 57.1 | 114 | 80 - 120 |
| Ethylbenzene | 50.00 | 58.8 | 118 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 52.1 | 104 | 65 - 125 |
| Toluene | 50.00 | 58.1 | 116 | 75 - 120 |
| Xylenes (total) | 150.0 | 176 | 117 | 75 - 130 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 50.00 | 55.5 | 111 | 2.89 | 30 | 80 - 120 |
| Ethylbenzene | 50.00 | 55.5 | 111 | 5.82 | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 51.4 | 103 | 1.26 | 30 | 65 - 125 |
| Toluene | 50.00 | 53.5 | 107 | 8.38 | 30 | 75 - 120 |
| Xylenes (total) | 150.0 | 165 | 110 | 5.97 | 30 | 75 - 130 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0331TU1.D | Injection Date: | 03/31/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 05:47 |
| Sequence: | 1D09109 | Lab Sample ID: | 1D09109-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.1 | PASS |
| 75 | 30 - 60% of 95 | 55 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.45 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 97.9 | PASS |
| 175 | 5 - 9% of 174 | 8.31 | PASS |
| 176 | 95 - 101% of 174 | 97.3 | PASS |
| 177 | 5 - 9% of 176 | 8.69 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0331CC1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1D09109 | Injection Date: | 03/31/11 |
| Lab Sample ID: | 1D09109-CCV1 | Injection Time: | 06:17 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 110.6 | 0.7397262 | 0.8184784 | | 10.6 | 20 |
| Ethylbenzene | A | 100.0 | 107.3 | 1.744482 | 1.872614 | | 7.3 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 102.6 | 0.6052207 | 0.6209935 | | 2.6 | 20 |
| Toluene | A | 100.0 | 104.1 | 0.898576 | 0.935788 | | 4.1 | 20 |
| Xylenes (total) | A | 300.0 | 311.4 | 1.402973 | 1.456727 | | 3.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.18 | 0.864999 | 0.8124223 | | -6.1 | 20 |
| Dibromofluoromethane | A | 30.00 | 27.13 | 0.3744165 | 0.3390841 | | -9.4 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 27.84 | 6.425678E-02 | 5.962697E-02 | | -7.2 | 20 |
| Toluene-d8 | A | 30.00 | 27.11 | 1.791679 | 1.619039 | | -9.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08024 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08024-TUN1 | 0208TUN1.D | 02/08/11 16:12 |
| Cal Standard | 1C08024-CAL1 | 0208CAL1.D | 02/08/11 16:35 |
| Cal Standard | 1C08024-CAL2 | 0208CAL2.D | 02/08/11 16:59 |
| Cal Standard | 1C08024-CAL3 | 0208CAL3.D | 02/08/11 17:23 |
| Cal Standard | 1C08024-CAL4 | 0208CAL4.D | 02/08/11 17:47 |
| Cal Standard | 1C08024-CAL5 | 0208CAL5.D | 02/08/11 18:11 |
| Cal Standard | 1C08024-CAL7 | 0208CAL7.D | 02/08/11 18:59 |
| Cal Standard | 1C08024-CAL8 | 0208CAL8.D | 02/08/11 19:23 |
| MS Tune | 1C08024-TUN2 | 0208TUN2.D | 02/09/11 06:45 |
| Cal Standard | 1C08024-CAL6 | 208CAL6A.D | 02/09/11 07:13 |
| Initial Cal Check | 1C08024-ICV1 | 208ICV1A.D | 02/09/11 07:37 |
| MS Tune | 1C08024-TUN3 | 0208TUN3.D | 02/09/11 15:56 |
| Cal Standard | 1C08024-CALH | SEQ-CALH.D | 02/09/11 16:20 |
| Cal Standard | 1C08024-CALI | SEQ-CALI.D | 02/09/11 16:45 |
| Cal Standard | 1C08024-CALJ | SEQ-CALJ.D | 02/09/11 17:09 |
| Cal Standard | 1C08024-CALK | SEQ-CALK.D | 02/09/11 17:33 |
| Cal Standard | 1C08024-CALL | SEQ-CALL.D | 02/09/11 17:56 |
| Cal Standard | 1C08024-CALM | SEQ-CALM.D | 02/09/11 18:20 |
| Cal Standard | 1C08024-CALN | SEQ-CALN.D | 02/09/11 18:44 |
| Cal Standard | 1C08024-CALO | SEQ-CALO.D | 02/09/11 19:08 |
| MS Tune | 1C08024-TUN4 | 0211TUN4.D | 02/11/11 14:35 |
| MS Tune | 1C08024-TUN5 | 0317TUN5.D | 03/17/11 09:51 |
| Cal Standard | 1C08024-CAL9 | 0317CAL1.D | 03/17/11 12:18 |
| Cal Standard | 1C08024-CALA | 0317CAL2.D | 03/17/11 12:43 |
| Cal Standard | 1C08024-CALB | 0317CAL3.D | 03/17/11 13:07 |
| Cal Standard | 1C08024-CALC | 0317CAL4.D | 03/17/11 13:32 |
| Cal Standard | 1C08024-CALD | 0317CAL5.D | 03/17/11 13:57 |
| Cal Standard | 1C08024-CALE | 0317CAL6.D | 03/17/11 14:21 |
| Cal Standard | 1C08024-CALF | 0317CAL7.D | 03/17/11 14:46 |
| Cal Standard | 1C08024-CALG | 0317CAL8.D | 03/17/11 15:11 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN1.D | Injection Date: | 02/08/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 16:12 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 21.5 | PASS |
| 75 | 30 - 60% of 95 | 39.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.17 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 84.4 | PASS |
| 175 | 5 - 9% of 174 | 7.21 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN2.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 06:45 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 23.4 | PASS |
| 75 | 30 - 60% of 95 | 41.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.69 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 82.1 | PASS |
| 175 | 5 - 9% of 174 | 7.04 | PASS |
| 176 | 95 - 101% of 174 | 95 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN3.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 15:56 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN3 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.4 | PASS |
| 75 | 30 - 60% of 95 | 43.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.71 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 63.8 | PASS |
| 175 | 5 - 9% of 174 | 7.5 | PASS |
| 176 | 95 - 101% of 174 | 97.4 | PASS |
| 177 | 5 - 9% of 176 | 6.46 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0211TUN4.D | Injection Date: | 02/11/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 14:35 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN4 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.3 | PASS |
| 75 | 30 - 60% of 95 | 40 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.39 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 86.4 | PASS |
| 175 | 5 - 9% of 174 | 6.88 | PASS |
| 176 | 95 - 101% of 174 | 95.8 | PASS |
| 177 | 5 - 9% of 176 | 6.12 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TUN5.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 09:51 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN5 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.1 | PASS |
| 75 | 30 - 60% of 95 | 46.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.79 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 69.4 | PASS |
| 175 | 5 - 9% of 174 | 7.65 | PASS |
| 176 | 95 - 101% of 174 | 95.3 | PASS |
| 177 | 5 - 9% of 176 | 6.71 | PASS |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 10 | 3.756483E-02 | 25.01 | 3.592496E-02 | 50.02 | 3.279747E-02 | 100 | 3.027563E-02 | 250.1 | 2.616578E-02 | 500.2 | 2.836008E-02 |
| Acrylonitrile | 9.996 | 7.751938E-02 | 24.99 | 6.934293E-02 | 49.98 | 0.1036364 | 99.96 | 6.371372E-02 | 249.9 | 9.483173E-02 | 499.8 | 0.1038235 |
| Benzene | 2 | 1.061782 | 5 | 1.085753 | 10 | 1.07756 | 20 | 1.101538 | 50 | 1.062681 | 100 | 1.168729 |
| Bromobenzene | 2 | 0.7470029 | 5 | 0.690608 | 10 | 0.73579 | 20 | 0.7029826 | 50 | 0.6759098 | 100 | 0.7159262 |
| Bromochloromethane | 2 | 0.1531184 | 5 | 0.1481263 | 10 | 0.1471181 | 20 | 0.1476266 | 50 | 0.1386942 | 100 | 0.1478994 |
| Tert-Amyl Methyl Ether | 2 | 0.7507538 | 5 | 0.7660239 | 10 | 0.7592371 | 20 | 0.7607483 | 50 | 0.7115281 | 100 | 0.7910823 |
| Bromodichloromethane | 2 | 0.3104988 | 5 | 0.3071958 | 10 | 0.3190153 | 20 | 0.3117362 | 50 | 0.3116093 | 100 | 0.3449616 |
| Bromoform | 2 | ~~0.2616829~~ | 5 | 0.2798085 | 10 | 0.3012296 | 20 | 0.3115155 | 50 | 0.3087993 | 100 | 0.3759775 |
| Bromomethane | 2 | ~~7.371335E-02~~ | 5 | 7.750693E-02 | 10 | 8.466907E-02 | 20 | 8.624543E-02 | 50 | 0.0937419 | 100 | 0.1153427 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 2 | 2.785165 | 5 | 2.617003 | 10 | 2.816419 | 20 | 2.750954 | 50 | 2.622143 | 100 | 2.894858 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 2 | 3.151285 | 5 | 3.066315 | 10 | 3.323505 | 20 | 3.301126 | 50 | 3.202842 | 100 | 3.459591 |
| tert-Butylbenzene | 2 | 2.17391 | 5 | 2.031212 | 10 | 2.135985 | 20 | 2.119383 | 50 | 2.039649 | 100 | 2.229972 |
| Carbon disulfide | 2 | 0.7149891 | 5 | 0.6924307 | 10 | 0.7993255 | 20 | 0.5551867 | 50 | 0.8103692 | 100 | 0.9498407 |
| Carbon tetrachloride | 2 | 0.2889103 | 5 | 0.2860839 | 10 | 0.288463 | 20 | 0.3030137 | 50 | 0.3080328 | 100 | 0.35016 |
| Chlorobenzene | 2 | 1.875558 | 5 | 1.771786 | 10 | 1.803756 | 20 | 1.765153 | 50 | 1.690779 | 100 | 1.905895 |
| Chloroethane | 2 | 8.705562E-02 | 5 | 7.229842E-02 | 10 | 8.957504E-02 | 20 | 8.400356E-02 | 50 | 8.288075E-02 | 100 | 8.787256E-02 |
| Chloroform | 2 | 0.4898649 | 5 | 0.4751689 | 10 | 0.4707317 | 20 | 0.4865336 | 50 | 0.457359 | 100 | 0.5020879 |
| 2-Chloroethyl vinyl ether | 3.99 | 0.1848713 | 9.975 | 0.1784075 | 19.95 | 0.1770296 | 39.9 | 0.1763524 | 99.75 | 0.1619434 | 199.5 | 0.1744515 |
| Chloromethane | 2 | 0.35766 | 5 | 0.3572945 | 10 | 0.3695839 | 20 | 0.3693712 | 50 | 0.3945523 | 100 | 0.3919691 |
| 1-Chlorohexane | 2.004 | 2.22108 | 5.01 | 2.023071 | 10.02 | 2.169874 | 20.04 | 2.118177 | 50.1 | 2.018756 | 100.2 | 2.112281 |
| 2-Chlorotoluene | 2 | 2.026203 | 5 | 2.003491 | 10 | 2.116461 | 20 | 2.10787 | 50 | 1.979201 | 100 | 2.20004 |
| 4-Chlorotoluene | 2 | 2.219507 | 5 | 2.256409 | 10 | 2.307302 | 20 | 2.295402 | 50 | 2.228706 | 100 | 2.424602 |
| Cyclohexane | 2 | 0.7461476 | 5 | 0.6373068 | 10 | 0.6643557 | 20 | 0.6754938 | 50 | 0.6609604 | 100 | 0.711204 |
| Dibromochloromethane | 2 | 0.4664542 | 5 | 0.4878683 | 10 | 0.5045771 | 20 | 0.5001025 | 50 | 0.4934865 | 100 | 0.5950801 |
| 1,2-Dibromo-3-chloropropane | 2 | 0.11204 | 5 | 0.1045764 | 10 | 0.1082321 | 20 | 0.1108009 | 50 | 0.1044906 | 100 | 0.1137534 |
| 1,2-Dibromoethane (EDB) | 2 | 0.6004558 | 5 | 0.5329797 | 10 | 0.4938069 | 20 | 0.4902496 | 50 | 0.458391 | 100 | 0.515838 |
| Dibromomethane | 2 | 0.1753952 | 5 | 0.1633735 | 10 | 0.1759811 | 20 | 0.1750685 | 50 | 0.1642084 | 100 | 0.1767537 |
| 1,2-Dichlorobenzene | 2 | 1.25758 | 5 | 1.158089 | 10 | 1.202775 | 20 | 1.190451 | 50 | 1.107789 | 100 | 1.182512 |

# INITIAL CALIBRATION DATA
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 2 | 1.313197 | 5 | 1.280567 | 10 | 1.331553 | 20 | 1.320101 | 50 | 1.222079 | 100 | 1.308105 |
| 1,4-Dichlorobenzene | 2 | 1.397145 | 5 | 1.336716 | 10 | 1.321149 | 20 | 1.291749 | 50 | 1.239289 | 100 | 1.30013 |
| Dichlorodifluoromethane | 2 | 0.2899824 | 5 | 0.2433753 | 10 | 0.2462849 | 20 | 0.2339546 | 50 | 0.2969228 | 100 | 0.3137854 |
| 1,1-Dichloroethane | 2 | 0.5414735 | 5 | 0.5528414 | 10 | 0.6051287 | 20 | 0.5926146 | 50 | 0.5757458 | 100 | 0.6148422 |
| 1,2-Dichloroethane | 2 | 0.293543 | 5 | 0.2842689 | 10 | 0.2959148 | 20 | 0.2875738 | 50 | 0.2714845 | 100 | 0.3087262 |
| 1,1-Dichloroethene | 2 | ~~0.1672813~~ | 5 | 0.1708818 | 10 | 0.2138923 | 20 | 0.1881977 | 50 | 0.2206685 | 100 | 0.2484578 |
| cis-1,2-Dichloroethene | 2 | 0.3114254 | 5 | 0.3106307 | 10 | 0.3209246 | 20 | 0.3086273 | 50 | 0.3079395 | 100 | 0.3264114 |
| trans-1,2-Dichloroethene | 2 | 0.2866469 | 5 | 0.2498845 | 10 | 0.2830028 | 20 | 0.2781287 | 50 | 0.2772549 | 100 | 0.3027944 |
| 1,2-Dichloroethene (total) | 4 | 0.2990361 | 10 | 0.2802576 | 20 | 0.3019637 | 40 | 0.293378 | 100 | 0.2925972 | 200 | 0.3146029 |
| 1,2-Dichloropropane | 2 | 0.3763763 | 5 | 0.3682909 | 10 | 0.365142 | 20 | 0.3629965 | 50 | 0.3481348 | 100 | 0.3742469 |
| 1,3-Dichloropropane | 2 | 0.879273 | 5 | 0.7939543 | 10 | 0.8081485 | 20 | 0.7899708 | 50 | 0.73429 | 100 | 0.8173957 |
| 2,2-Dichloropropane | 2 | 0.3242779 | 5 | 0.3285206 | 10 | 0.3349875 | 20 | 0.3345004 | 50 | 0.3213804 | 100 | 0.3729991 |
| 1,1-Dichloropropene | 2 | 0.3884081 | 5 | 0.3484738 | 10 | 0.3805441 | 20 | 0.3847533 | 50 | 0.3792585 | 100 | 0.4104046 |
| cis-1,3-Dichloropropene | 2 | 0.4344839 | 5 | 0.4350143 | 10 | 0.4301103 | 20 | 0.4335544 | 50 | 0.4170583 | 100 | 0.4573277 |
| trans-1,3-Dichloropropene | 2 | 0.7683201 | 5 | 0.7138107 | 10 | 0.7232023 | 20 | 0.7117684 | 50 | 0.6927822 | 100 | 0.7933086 |
| Diisopropyl Ether | 2 | 1.643891 | 5 | 1.595466 | 10 | 1.621821 | 20 | 1.620216 | 50 | 1.573697 | 100 | 1.707769 |
| Ethylbenzene | 2 | 3.006193 | 5 | 2.923263 | 10 | 3.07896 | 20 | 3.067902 | 50 | 2.95293 | 100 | 3.41056 |
| Ethyl tert-Butyl Ether | 2 | 0.9974004 | 5 | 0.9712783 | 10 | 0.9963493 | 20 | 0.9846551 | 50 | 0.9564952 | 100 | 1.075788 |
| Ethyl Methacrylate | 2 | 0.8625155 | 5 | 0.8436295 | 10 | 0.7624561 | 20 | 0.7667309 | 50 | 0.7163738 | 100 | 0.8089864 |
| Hexachlorobutadiene | 2 | 0.4575836 | 5 | 0.4341365 | 10 | 0.4659515 | 20 | 0.4715648 | 50 | 0.4532541 | 100 | 0.5045612 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 2 | 0.248407 | 5 | 0.2548802 | 10 | 0.3049656 | 20 | 0.279838 | 50 | 0.3250018 | 100 | 0.3519559 |
| Isopropylbenzene | 2 | 2.294059 | 5 | 2.285611 | 10 | 2.452665 | 20 | 2.37677 | 50 | 2.275532 | 100 | 2.581928 |
| p-Isopropyltoluene | 2 | 2.309628 | 5 | 2.135441 | 10 | 2.337972 | 20 | 2.332356 | 50 | 2.269986 | 100 | 2.487688 |
| Methylene chloride | 2 | 0.7552542 | 5 | 0.4559193 | 10 | 0.3996641 | 20 | 0.2317498 | 50 | 0.2907731 | 100 | 0.3130779 |
| Methyl Acetate | 2 | 0.2236285 | 5 | 0.2514748 | 10 | 0.2597989 | 20 | 0.1718908 | 50 | 0.2310738 | 100 | 0.2529856 |
| Methylcyclohexane | 2 | 0.5012217 | 5 | 0.4741875 | 10 | 0.5071525 | 20 | 0.5214485 | 50 | 0.502103 | 100 | 0.5426753 |
| Naphthalene | 2 | 1.780473 | 5 | 1.614442 | 10 | 1.578626 | 20 | 1.557813 | 50 | 1.429284 | 100 | 1.560273 |
| Methyl Methacrylate | 2 | 0.48326 | 5 | 0.4803774 | 10 | 0.4711374 | 20 | 0.4626519 | 50 | 0.4558675 | 100 | 0.4859491 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 2 | 0.5759807 | 5 | 0.5826558 | 10 | 0.5951922 | 20 | 0.5754943 | 50 | 0.5694992 | 100 | 0.638687 |

# INITIAL CALIBRATION DATA
## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_003
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1081001
Instrument: MS-VOA6
Matrix: Water
Calibration Dates: 2/8/11 16:35 3/17/11 15:11

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 2 | 3.79603 | 5 | 3.545272 | 10 | 3.80743 | 20 | 3.780267 | 50 | 3.661068 | 100 | 4.13336 |
| Styrene | 2 | 1.927309 | 5 | 1.80957 | 10 | 1.873548 | 20 | 1.872612 | 50 | 1.750939 | 100 | 1.970078 |
| 1,1,2,2-Tetrachloroethane | 2 | 0.6828267 | 5 | 0.7255559 | 10 | 0.7090542 | 20 | 0.6776878 | 50 | 0.6315376 | 100 | 0.71698 |
| 1,1,1,2-Tetrachloroethane | 2 | 0.6138791 | 5 | 0.5872829 | 10 | 0.6046367 | 20 | 0.6078519 | 50 | 0.5767041 | 100 | 0.6580373 |
| tert-Butyl alcohol | 10 | 3.247147E-02 | 25 | 2.832816E-02 | 50 | 2.641692E-02 | 100 | 2.675249E-02 | 250 | 2.407234E-02 | 500 | 2.525515E-02 |
| Tetrachloroethene | 2 | 0.6411317 | 5 | 0.5516078 | 10 | 0.6071488 | 20 | 0.5940988 | 50 | 0.5687704 | 100 | 0.6485346 |
| Toluene | 2 | 1.653855 | 5 | 1.500784 | 10 | 1.608872 | 20 | 1.546331 | 50 | 1.509546 | 100 | 1.656163 |
| 1,2,3-Trichlorobenzene | 2 | 0.7095767 | 5 | 0.7003469 | 10 | 0.7116627 | 20 | 0.6956501 | 50 | 0.6350796 | 100 | 0.6810502 |
| 1,2,4-Trichlorobenzene | 2 | 0.8162488 | 5 | 0.7952111 | 10 | 0.7953906 | 20 | 0.7745676 | 50 | 0.7371004 | 100 | 0.7827231 |
| 1,1,2-Trichloroethane | 2 | 0.5007809 | 5 | 0.4659105 | 10 | 0.4662858 | 20 | 0.4427537 | 50 | 0.416613 | 100 | 0.4616935 |
| 1,1,1-Trichloroethane | 2 | 0.3368524 | 5 | 0.3178967 | 10 | 0.3316859 | 20 | 0.3398842 | 50 | 0.3373299 | 100 | 0.3698448 |
| Tetrahydrofuran | 2 | 0.2155278 | 5 | 0.1543103 | 10 | 0.118979 | 20 | 0.1078508 | 50 | 9.851796E-02 | 100 | 0.1062613 |
| Trichloroethene | 2 | 0.328765 | 5 | 0.2905771 | 10 | 0.2943873 | 20 | 0.3047147 | 50 | 0.2969598 | 100 | 0.3201752 |
| Trichlorofluoromethane | 2 | 0.4417375 | 5 | 0.4173432 | 10 | 0.4186727 | 20 | 0.4473662 | 50 | 0.4334278 | 100 | 0.4536805 |
| 1,2,3-Trichloropropane | 2 | 0.1627907 | 5 | 0.1329942 | 10 | 0.134935 | 20 | 0.1426108 | 50 | 0.1239256 | 100 | 0.1396684 |
| 1,3,5-Trimethylbenzene | 2 | 2.255114 | 5 | 2.173421 | 10 | 2.276182 | 20 | 2.202211 | 50 | 2.172413 | 100 | 2.372903 |
| 1,2,4-Trimethylbenzene | 2 | 2.309479 | 5 | 2.14176 | 10 | 2.199332 | 20 | 2.211839 | 50 | 2.158688 | 100 | 2.3911 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 2 | 0.268791 | 5 | 0.2260116 | 10 | 0.2709447 | 20 | 0.2430542 | 50 | 0.2542092 | 100 | 0.2843963 |
| Vinyl chloride | 2 | 0.2231652 | 5 | 0.1838824 | 10 | 0.1648936 | 20 | 0.1664933 | 50 | 0.2255206 | 100 | 0.2109722 |
| m,p-Xylene | 4 | 2.356566 | 10 | 2.201289 | 20 | 2.300586 | 40 | 2.335069 | 100 | 2.271009 | 200 | 2.481994 |
| o-Xylene | 2 | 2.296002 | 5 | 2.225227 | 10 | 2.338918 | 20 | 2.313981 | 50 | 2.173523 | 100 | 2.494403 |
| Vinyl acetate | 3.998 | 0.4521423 | 9.995 | 0.4534324 | 19.99 | 0.4418868 | 39.98 | 0.4271593 | 99.95 | 0.4198531 | 199.9 | 0.4560466 |
| Xylenes (total) | 6 | 2.336378 | 15 | 2.209268 | 30 | 2.313363 | 60 | 2.328039 | 150 | 2.238513 | 300 | 2.48613 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 10 | 2.774079E-02 | 25 | 0.0266787 | 50 | 2.668582E-02 | 100 | 2.719233E-02 | 250 | 2.468558E-02 | 500 | 2.532327E-02 |
| tert-Amyl ethyl ether | 2 | 0.8583258 | 5 | 0.850034 | 10 | 0.8687331 | 20 | 0.8675918 | 50 | 0.8495265 | 100 | 0.9293077 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | 4 | 0.1347026 | 10 | 0.1001498 | 20 | 0.1056507 | 40 | 0.1037585 |
| Acrolein | 750.3 | 2.838079E-02 | 1000 | 2.600032E-02 | | | | | | | | |
| Acrylonitrile | 749.7 | 0.1024932 | 999.6 | 9.546004E-02 | | | | | | | | |
| Benzene | 150 | 1.192145 | 200 | 1.155082 | | | | | | | | |
| Bromobenzene | 150 | 0.7302519 | 200 | 0.7329693 | | | | | | | | |
| Bromochloromethane | 150 | 0.1491289 | 200 | 0.1443947 | | | | | | | | |
| Tert-Amyl Methyl Ether | 150 | 0.807724 | 200 | 0.7867898 | | | | | | | | |
| Bromodichloromethane | 150 | 0.3531789 | 200 | 0.3510862 | | | | | | | | |
| Bromoform | 150 | 0.4028367 | 200 | ~~0.4128355~~ | | | | | | | | |
| Bromomethane | 150 | 0.1015578 | 200 | 0.1000582 | | | | | | | | |
| Bromofluorobenzene | | | | | 30 | 0.8230123 | 40 | 0.8034236 | 50 | 0.7644337 | 60 | 0.7687512 |
| n-Butylbenzene | 150 | 2.870467 | 200 | 2.722726 | | | | | | | | |
| 2-Butanone | | | | | 4 | 0.1613574 | 10 | 0.1735417 | 20 | 0.1780046 | 40 | 0.1810548 |
| sec-Butylbenzene | 150 | 3.480445 | 200 | 3.296109 | | | | | | | | |
| tert-Butylbenzene | 150 | 2.240936 | 200 | 2.192407 | | | | | | | | |
| Carbon disulfide | 150 | 0.9301783 | 200 | 0.8994057 | | | | | | | | |
| Carbon tetrachloride | 150 | 0.3521533 | 200 | 0.338749 | | | | | | | | |
| Chlorobenzene | 150 | 2.022008 | 200 | 2.042233 | | | | | | | | |
| Chloroethane | 150 | 8.393602E-02 | 200 | 8.074598E-02 | | | | | | | | |
| Chloroform | 150 | 0.5073668 | 200 | 0.4925365 | | | | | | | | |
| 2-Chloroethyl vinyl ether | 299.2 | 0.1762279 | 399 | 0.1688767 | | | | | | | | |
| Chloromethane | 150 | 0.3887158 | 200 | 0.3704813 | | | | | | | | |
| 1-Chlorohexane | 150.3 | 2.01726 | 200.4 | 1.885388 | | | | | | | | |
| 2-Chlorotoluene | 150 | 2.239528 | 200 | 2.201793 | | | | | | | | |
| 4-Chlorotoluene | 150 | 2.466821 | 200 | 2.43551 | | | | | | | | |
| Cyclohexane | 150 | 0.7164013 | 200 | 0.6757709 | | | | | | | | |
| Dibromochloromethane | 150 | 0.6469215 | 200 | 0.6589571 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 150 | 0.1180717 | 200 | 0.1164974 | | | | | | | | |
| 1,2-Dibromoethane (EDB) | 150 | 0.5513408 | 200 | 0.5571805 | | | | | | | | |
| Dibromomethane | 150 | 0.1775397 | 200 | 0.1716395 | | | | | | | | |
| 1,2-Dichlorobenzene | 150 | 1.205745 | 200 | 1.236032 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 150 | 1.326823 | 200 | 1.310985 | | | | | | | | |
| 1,4-Dichlorobenzene | 150 | 1.329174 | 200 | 1.311361 | | | | | | | | |
| Dichlorodifluoromethane | 150 | 0.294192 | 200 | 0.2759141 | | | | | | | | |
| 1,1-Dichloroethane | 150 | 0.6166086 | 200 | 0.5947691 | | | | | | | | |
| 1,2-Dichloroethane | 150 | 0.3026457 | 200 | 0.3034343 | | | | | | | | |
| 1,1-Dichloroethene | 150 | 0.1785913 | 200 | ~~0.2416956~~ | | | | | | | | |
| cis-1,2-Dichloroethene | 150 | 0.3297915 | 200 | 0.3192484 | | | | | | | | |
| trans-1,2-Dichloroethene | 150 | 0.2978576 | 200 | 0.2889025 | | | | | | | | |
| 1,2-Dichloroethene (total) | 300 | 0.3138245 | 400 | 0.3040755 | | | | | | | | |
| 1,2-Dichloropropane | 150 | 0.3778939 | 200 | 0.3725401 | | | | | | | | |
| 1,3-Dichloropropane | 150 | 0.8986319 | 200 | 0.8784469 | | | | | | | | |
| 2,2-Dichloropropane | 150 | 0.3617797 | 200 | 0.3482468 | | | | | | | | |
| 1,1-Dichloropropene | 150 | 0.4099157 | 200 | 0.3932496 | | | | | | | | |
| cis-1,3-Dichloropropene | 150 | 0.469431 | 200 | 0.4523565 | | | | | | | | |
| trans-1,3-Dichloropropene | 150 | 0.8248023 | 200 | 0.802177 | | | | | | | | |
| Diisopropyl Ether | 150 | 1.730807 | 200 | 1.694548 | | | | | | | | |
| Ethylbenzene | 150 | 3.651297 | 200 | 3.573134 | | | | | | | | |
| Ethyl tert-Butyl Ether | 150 | 1.079763 | 200 | 1.057801 | | | | | | | | |
| Ethyl Methacrylate | 150 | 0.8710207 | 200 | 0.8578263 | | | | | | | | |
| Hexachlorobutadiene | 150 | 0.4984486 | 200 | 0.5033677 | | | | | | | | |
| 2-Hexanone | | | | | 4 | 0.5968604 | 10 | 0.6295112 | 20 | 0.5805845 | 40 | 0.6497723 |
| Iodomethane | 150 | 0.3500682 | 200 | ~~0.3742377~~ | | | | | | | | |
| Isopropylbenzene | 150 | 2.784682 | 200 | 2.727285 | | | | | | | | |
| p-Isopropyltoluene | 150 | 2.44157 | 200 | 2.332893 | | | | | | | | |
| Methylene chloride | 150 | 0.309667 | 200 | 0.3027675 | | | | | | | | |
| Methyl Acetate | 150 | 0.2510632 | 200 | ~~0.223989~~ | | | | | | | | |
| Methylcyclohexane | 150 | 0.5392906 | 200 | 0.5146507 | | | | | | | | |
| Naphthalene | 150 | 1.643224 | 200 | 1.657041 | | | | | | | | |
| Methyl Methacrylate | 150 | 0.4831825 | 200 | 0.4512382 | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | 4 | 0.352703 | 10 | 0.3709348 | 20 | 0.3733009 | 40 | 0.3939664 |
| Methyl t-Butyl Ether | 150 | 0.6360249 | 200 | 0.6284265 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 150 | 4.002939 | 200 | 3.703082 | | | | | | | | |
| Styrene | 150 | 2.111887 | 200 | 2.10262 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 150 | 0.6980061 | 200 | 0.6850432 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 150 | 0.7068497 | 200 | 0.7111916 | | | | | | | | |
| tert-Butyl alcohol | 750 | 2.532031E-02 | 1000 | 2.506596E-02 | | | | | | | | |
| Tetrachloroethene | 150 | 0.6992434 | 200 | 0.6850495 | | | | | | | | |
| Toluene | 150 | 1.706061 | 200 | 1.604325 | | | | | | | | |
| 1,2,3-Trichlorobenzene | 150 | 0.7278232 | 200 | 0.7516194 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 150 | 0.8125712 | 200 | 0.8332477 | | | | | | | | |
| 1,1,2-Trichloroethane | 150 | 0.4953458 | 200 | 0.4956092 | | | | | | | | |
| 1,1,1-Trichloroethane | 150 | 0.3669203 | 200 | 0.3572786 | | | | | | | | |
| Tetrahydrofuran | 150 | 0.1030719 | 200 | 9.688072E-02 | | | | | | | | |
| Trichloroethene | 150 | 0.3226635 | 200 | 0.3110056 | | | | | | | | |
| Trichlorofluoromethane | 150 | 0.4505598 | 200 | 0.3669905 | | | | | | | | |
| 1,2,3-Trichloropropane | 150 | 0.1471629 | 200 | 0.1448242 | | | | | | | | |
| 1,3,5-Trimethylbenzene | 150 | 2.367285 | 200 | 2.354633 | | | | | | | | |
| 1,2,4-Trimethylbenzene | 150 | 2.425007 | 200 | 2.350211 | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 150 | 0.2343912 | 200 | 0.2778142 | | | | | | | | |
| Vinyl chloride | 150 | 0.1769872 | 200 | 0.1586922 | | | | | | | | |
| m,p-Xylene | 300 | 2.402223 | 400 | 2.220402 | | | | | | | | |
| o-Xylene | 150 | 2.704775 | 200 | 2.61654 | | | | | | | | |
| Vinyl acetate | 299.8 | 0.4630155 | 399.8 | 0.4347041 | | | | | | | | |
| Xylenes (total) | 450 | 2.503073 | 600 | 2.352449 | | | | | | | | |
| Dibromofluoromethane | | | | | 30 | 0.2954943 | 40 | 0.2974247 | 50 | 0.2871887 | 60 | 0.2881603 |
| 1,2-Dichloroethane-d4 | | | | | 30 | 5.690591E-02 | 40 | 5.565845E-02 | 50 | 5.399013E-02 | 60 | 5.358577E-02 |
| Toluene-d8 | | | | | 30 | 2.140235 | 40 | 2.122804 | 50 | 2.025309 | 60 | 2.088032 |
| tert-Amyl alcohol | 750 | 2.609744E-02 | 1000 | 2.452795E-02 | | | | | | | | |
| tert-Amyl ethyl ether | 150 | 0.9427317 | 200 | 0.9137197 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 100 | 6.113527E-02 | 200 | 6.789272E-02 | 300 | 7.494916E-02 | 400 | ~~5.841085E-02~~ | | | | |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 70 | 0.7834868 | 30 | 0.8046764 | 30 | 0.8182797 | 30 | 0.7949773 | | | | |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 100 | 0.1426145 | 200 | 0.1579733 | 300 | 0.1625784 | 400 | 0.1390088 | | | | |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 100 | 0.5257543 | 200 | 0.5663449 | 300 | 0.5937655 | 400 | 0.5091155 | | | | |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 100 | 0.3187762 | 200 | 0.347223 | 300 | 0.3502062 | 400 | 0.3078423 | | | | |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 70 | 0.2942664 | 30 | 0.2949058 | 30 | 0.2928709 | 30 | 0.2896504 | | | | |
| 1,2-Dichloroethane-d4 | 70 | 5.499892E-02 | 30 | 5.289629E-02 | 30 | 5.266519E-02 | 30 | 5.167637E-02 | | | | |
| Toluene-d8 | 70 | 2.099996 | 30 | 2.097625 | 30 | 2.134783 | 30 | 2.118841 | | | | |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 19 | | Level 20 | | Level 21 | | Level 22 | | Level 23 | | Level 24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 19 | | Level 20 | | Level 21 | | Level 22 | | Level 23 | | Level 24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 19 | | Level 20 | | Level 21 | | Level 22 | | Level 23 | | Level 24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 9.260554E-02 | 28.00847 | 3.792143 | 0.2505724 | | 0.9930411 | 0.99 | |
| Acrolein | 3.068373E-02 | 14.17936 | 3.687375 | 0.266829 | | | 15 | |
| Acrylonitrile | 8.885261E-02 | 18.29246 | 4.637625 | 0.1611173 | 0.9961602 | | 0.995 | |
| Benzene | 1.113159 | 4.608946 | 7.67675 | 4.449891E-02 | | | 15 | |
| Bromobenzene | 0.7164301 | 3.444919 | 12.40125 | 2.882236E-02 | | | 15 | |
| Bromochloromethane | 0.1470133 | 2.818947 | 6.77675 | 6.962075E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7667359 | 3.84088 | 7.868625 | 0.0369654 | | | 15 | |
| Bromodichloromethane | 0.3261603 | 6.110637 | 8.6565 | 0.0395075 | | | 15 | |
| Bromoform | 0.3300278 | 14.56769 | 11.81133 | 3.114238E-02 | | | SPCC (0.1) | |
| Bromomethane | 9.416029E-02 | 13.49252 | 2.841429 | 0.3399494 | | | 15 | |
| Bromofluorobenzene | 0.7951301 | 2.708642 | 12.22875 | 0.0251581 | | | 15 | |
| n-Butylbenzene | 2.759967 | 3.753642 | 13.82862 | 1.990092E-02 | | | 15 | |
| 2-Butanone | 0.1620167 | 9.544266 | 6.227 | 6.194136E-02 | | | 15 | |
| sec-Butylbenzene | 3.285152 | 4.35073 | 13.29013 | 3.345705E-02 | | | 15 | |
| tert-Butylbenzene | 2.145432 | 3.707538 | 13.05663 | 2.013395E-02 | | | 15 | |
| Carbon disulfide | 0.7939658 | 17.02013 | 4.8035 | 0.1982975 | 0.9975385 | | 0.995 | |
| Carbon tetrachloride | 0.3144458 | 8.98804 | 7.644625 | 5.435293E-02 | | | 15 | |
| Chlorobenzene | 1.859646 | 6.752518 | 11.08463 | 2.703025E-02 | | | SPCC (0.3) | |
| Chloroethane | 8.354599E-02 | 6.438411 | 2.97925 | 0.3520969 | | | 15 | |
| Chloroform | 0.4852062 | 3.430147 | 6.7485 | 5.313365E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.17477 | 3.894887 | 9.0105 | 4.037457E-02 | | | 15 | |
| Chloromethane | 0.3749535 | 3.973692 | 2.239125 | 0.4681154 | | | SPCC (0.1) | |
| 1-Chlorohexane | 2.070736 | 5.11712 | 11.051 | 3.853776E-02 | | | 15 | |
| 2-Chlorotoluene | 2.109323 | 4.700997 | 12.6225 | 3.341376E-02 | | | 15 | |
| 4-Chlorotoluene | 2.329282 | 4.243641 | 12.68525 | 2.421974E-02 | | | 15 | |
| Cyclohexane | 0.685955 | 5.186082 | 7.5735 | 5.633159E-02 | | | 15 | |
| Dibromochloromethane | 0.5441809 | 14.16857 | 10.3225 | 3.125264E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1110578 | 4.56858 | 14.43113 | 0.0227997 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5250303 | 8.57485 | 10.53375 | 2.690444E-02 | | | 15 | |
| Dibromomethane | 0.172495 | 3.274856 | 8.595125 | 3.800596E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.192622 | 3.865282 | 13.789 | 1.366507E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.301676 | 2.74033 | 13.3795 | 3.011168E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.315839 | 3.393764 | 13.47213 | 2.224884E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.2743014 | 10.74781 | 2.016625 | 0.5619011 | | | 15 | |
| 1,1-Dichloroethane | 0.586753 | 4.750245 | 5.793375 | 7.525912E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.2934489 | 4.123627 | 7.505875 | 5.038248E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2034482 | 14.48541 | 4.277667 | 0.1728932 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3168749 | 2.657418 | 6.4965 | 8.574096E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.283059 | 5.687211 | 5.419625 | 8.226152E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2999669 | 3.809693 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.3682027 | 2.627754 | 8.4795 | 4.454179E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8250139 | 6.792829 | 10.06175 | 0.0225482 | | | 15 | |
| 2,2-Dichloropropane | 0.3408366 | 5.440234 | 6.602125 | 6.320189E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.386876 | 5.080917 | 7.524375 | 0.0579442 | | | 15 | |
| cis-1,3-Dichloropropene | 0.441167 | 3.859299 | 9.22575 | 3.273881E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7537714 | 6.572131 | 9.69775 | 2.998173E-02 | | | 15 | |
| Diisopropyl Ether | 1.648527 | 3.427531 | 6.164375 | 8.144213E-02 | | | 15 | |
| Ethylbenzene | 3.20803 | 9.080474 | 11.2305 | 3.248409E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 1.014941 | 4.802987 | 6.624375 | 5.856448E-02 | | | 15 | |
| Ethyl Methacrylate | 0.8111924 | 7.03362 | 9.88475 | 3.023834E-02 | | | 15 | |
| Hexachlorobutadiene | 0.4736085 | 5.501745 | 15.78825 | 2.462656E-02 | | | 15 | |
| 2-Hexanone | 0.5814636 | 8.204247 | 9.98775 | 2.484454E-02 | | | 15 | |
| Iodomethane | 0.3021595 | 14.1237 | 4.468714 | 0.194976 | | | 15 | |
| Isopropylbenzene | 2.472317 | 8.225239 | 12.12925 | 2.846195E-02 | | | 15 | |
| p-Isopropyltoluene | 2.330942 | 4.564871 | 13.4265 | 0.02919 | | | 15 | |
| Methylene chloride | 0.3823591 | 43.34252 | 4.754375 | 0.1602236 | 0.9983757 | | 0.995 | |
| Methyl Acetate | 0.2345594 | 13.01771 | 4.628714 | 0.1631094 | | | 15 | |
| Methylcyclohexane | 0.5128412 | 4.32501 | 8.80775 | 0.0356778 | | | 15 | |
| Naphthalene | 1.602647 | 6.275391 | 15.66025 | 1.983775E-02 | | | 15 | |
| Methyl Methacrylate | 0.471708 | 2.883842 | 7.5735 | 5.633159E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.3518691 | 8.076643 | 9.140625 | 1.978248E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.6002451 | 4.891206 | 5.423375 | 0.1227064 | | | 15 | |
| n-Propylbenzene | 3.803681 | 4.930978 | 12.5375 | 2.980661E-02 | | | 15 | |
| Styrene | 1.92732 | 6.721793 | 11.704 | 2.493567E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6908364 | 4.258784 | 12.05575 | 3.119017E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6333042 | 8.281663 | 11.1275 | 3.464365E-02 | | | 15 | |
| tert-Butyl alcohol | 2.671035E-02 | 9.966665 | 4.427375 | 0.2216083 | | | 15 | |
| Tetrachloroethene | 0.6244481 | 8.506563 | 10.43312 | 3.100488E-02 | | | 15 | |
| Toluene | 1.598242 | 4.627079 | 9.70025 | 4.291451E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.7016011 | 4.889794 | 15.94525 | 2.154844E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.7933826 | 3.727781 | 15.508 | 1.845566E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.468124 | 6.206816 | 9.8525 | 3.322686E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3447116 | 5.271122 | 7.3065 | 4.409785E-02 | | | 15 | |
| Tetrahydrofuran | 0.125175 | 32.67256 | 6.962375 | 9.085995E-02 | 0.9977438 | | 0.995 | |
| Trichloroethene | 0.308656 | 4.617016 | 8.43125 | 5.007405E-02 | | | 15 | |
| Trichlorofluoromethane | 0.4287223 | 6.644425 | 3.48675 | 0.268437 | | | 15 | |
| 1,2,3-Trichloropropane | 0.141114 | 8.142237 | 12.1785 | 2.715286E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.27177 | 3.75346 | 12.7145 | 2.609472E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 2.273427 | 4.81283 | 13.08825 | 1.976355E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2574515 | 8.290995 | 4.35 | 0.1908188 | | | 15 | |
| Vinyl chloride | 0.1888258 | 14.37893 | 2.38775 | 0.3384152 | | | CCC (20) | |
| m,p-Xylene | 2.321142 | 4.033096 | 11.34387 | 3.895987E-02 | | | 15 | |
| o-Xylene | 2.395421 | 7.925602 | 11.73375 | 4.033886E-02 | | | 15 | |
| Vinyl acetate | 0.44353 | 3.427564 | 5.86575 | 0.0758661 | | | 15 | |
| Xylenes (total) | 2.345902 | 4.444014 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.2924952 | 1.275439 | 6.909375 | 4.408995E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 5.404713E-02 | 3.185261 | 7.40225 | 6.524669E-02 | | | 15 | |
| Toluene-d8 | 2.103453 | 1.736151 | 9.61275 | 2.403928E-02 | | | 15 | |
| tert-Amyl alcohol | 2.611649E-02 | 4.492563 | 7.122 | 5.407818E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.8849963 | 4.245319 | 8.745 | 4.184207E-02 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 208ICV1A.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1C08024 | Injection Date: | 02/09/11 |
| Lab Sample ID: | 1C08024-ICV1 | Injection Time: | 07:37 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 104.0 | 1.113159 | 1.157594 | | 4.0 | 20 |
| Ethylbenzene | A | 100.0 | 104.9 | 3.20803 | 3.364976 | | 4.9 | 20 |
| Methyl t-Butyl Ether | A | 200.0 | 214.0 | 0.6002451 | 0.6421448 | | 7.0 | 20 |
| Toluene | A | 100.0 | 104.5 | 1.598242 | 1.670356 | | 4.5 | 20 |
| Xylenes (total) | A | 300.0 | 315.0 | 2.345902 | 2.462529 | | 5.0 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.76 | 0.7951301 | 0.8154046 | | 2.5 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.19 | 0.2924952 | 0.2943467 | | 0.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 32.03 | 5.404713E-02 | 5.770697E-02 | | 6.8 | 20 |
| Toluene-d8 | A | 30.00 | 30.25 | 2.103453 | 2.120858 | | 0.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09404 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09404-TUN1 | 0401TUNE.D | 04/01/11 18:37 |
| Calibration Check | 1D09404-CCV1 | 0401CCVE.D | 04/01/11 19:01 |
| LCS | 1D01020-BS1 | 0401LS1E.D | 04/01/11 19:25 |
| Blank | 1D01020-BLK1 | 0401BL1E.D | 04/01/11 20:38 |
| 05-SS-030-1520 | 1103237-03 | 0323703.D | 04/01/11 21:02 |
| 05-SS-030-1520-D | 1103237-04 | 0323704.D | 04/01/11 21:26 |
| 05-SS-031-0204 | 1103237-05 | 0323705.D | 04/01/11 21:50 |
| 05-SS-032-0204 | 1103237-07 | 0323707.D | 04/01/11 22:14 |
| 05-SS-033-0204 | 1103237-08 | 0323708.D | 04/01/11 22:38 |
| 05-SS-034-0204 | 1103237-09 | 0323709.D | 04/01/11 23:03 |
| 05-SS-035-0204 | 1103237-10 | 0323710.D | 04/01/11 23:27 |
| 05-SS-036-0204 | 1103237-11 | 0323711.D | 04/01/11 23:52 |
| 05-SS-066-0406 | 1103237-12 | 0323712.D | 04/02/11 00:16 |
| 05-SS-068-0406 | 1103237-13 | 0323713.D | 04/02/11 00:40 |
| 05-SS-069-0406 | 1103237-14 | 0323714.D | 04/02/11 01:05 |
| LCS Dup | 1D01020-BSD1 | 0401LD1E.D | 04/02/11 01:28 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D01020 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-030-1520 | 1103237-03 | 04/01/11 00:00 | 3.69 | 5.00 |
| 05-SS-030-1520-D | 1103237-04 | 04/01/11 00:00 | 4.53 | 5.00 |
| 05-SS-031-0204 | 1103237-05 | 04/01/11 00:00 | 3.28 | 5.00 |
| 05-SS-032-0204 | 1103237-07 | 04/01/11 00:00 | 4.34 | 5.00 |
| 05-SS-033-0204 | 1103237-08 | 04/01/11 00:00 | 3.92 | 5.00 |
| 05-SS-034-0204 | 1103237-09 | 04/01/11 00:00 | 4.16 | 5.00 |
| 05-SS-035-0204 | 1103237-10 | 04/01/11 00:00 | 4.50 | 5.00 |
| 05-SS-036-0204 | 1103237-11 | 04/01/11 00:00 | 4.43 | 5.00 |
| 05-SS-066-0406 | 1103237-12 | 04/01/11 00:00 | 4.22 | 5.00 |
| 05-SS-068-0406 | 1103237-13 | 04/01/11 00:00 | 4.99 | 5.00 |
| 05-SS-069-0406 | 1103237-14 | 04/01/11 00:00 | 4.53 | 5.00 |
| Blank | 1D01020-BLK1 | 04/01/11 00:00 | 5.00 | 5.00 |
| LCS | 1D01020-BS1 | 04/01/11 00:00 | 5.00 | 5.00 |
| LCS Dup | 1D01020-BSD1 | 04/01/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D01020-BLK1 | File ID: | 0401BL1E.D |
| Sampled: | | Prepared: | | Analyzed: | 04/01/11 20:38 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D01020 Sequence: 1D09404 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | Q, U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | Q, U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03132 | 104 | 85 - 120 | X |
| Dibromofluoromethane | 0.03000 | 0.03209 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03453 | 115 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03032 | 101 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D01020 | Laboratory ID: | 1D01020-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.05597 | 112 | 75 - 125 |
| **Ethylbenzene** | **0.05000** | **0.06388** | **128** | **75 - 125** |
| Methyl t-Butyl Ether | 0.05000 | 0.05981 | 120 | 55 - 150 |
| Toluene | 0.05000 | 0.06217 | 124 | 70 - 125 |
| **Xylenes (total)** | **0.1500** | **0.1963** | **131** | **75 - 125** |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCSD CONCENTRATION (mg/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 0.05000 | 0.04985 | 99.7 | 11.6 | 30 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.05210 | 104 | 20.3 | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.05206 | 104 | 13.9 | 30 | 55 - 150 |
| Toluene | 0.05000 | 0.05164 | 103 | 18.5 | 30 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1603 | 107 | 20.1 | 30 | 75 - 125 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0401TUNE.D | Injection Date: | 04/01/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 18:37 |
| Sequence: | 1D09404 | Lab Sample ID: | 1D09404-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 30.8 | PASS |
| 75 | 30 - 60% of 95 | 50.3 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.13 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 51.1 | PASS |
| 175 | 5 - 9% of 174 | 8.44 | PASS |
| 176 | 95 - 101% of 174 | 96.9 | PASS |
| 177 | 5 - 9% of 176 | 7.06 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0401CCVE.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D09404 | Injection Date: | 04/01/11 |
| Lab Sample ID: | 1D09404-CCV1 | Injection Time: | 19:01 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 97.17 | 1.113159 | 1.081664 | | -2.8 | 20 |
| Ethylbenzene | A | 100.0 | 112.6 | 3.20803 | 3.612483 | | 12.6 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 114.8 | 0.6002451 | 0.6893793 | | 14.8 | 20 |
| Toluene | A | 100.0 | 107.1 | 1.598242 | 1.711973 | | 7.1 | 20 |
| Xylenes (total) | A | 300.0 | 332.4 | 2.345902 | 2.599776 | | 10.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 36.12 | 0.7951301 | 0.957395 | | 20.4 | 20 * |
| Dibromofluoromethane | A | 30.00 | 32.04 | 0.2924952 | 0.3124115 | | 6.8 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 31.78 | 5.404713E-02 | 0.0572645 | | 6.0 | 20 |
| Toluene-d8 | A | 30.00 | 35.38 | 2.103453 | 2.480868 | | 17.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09501 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09501-TUN1 | 0404TUN1.D | 04/04/11 08:07 |
| Calibration Check | 1D09501-CCV1 | 0404CCV1.D | 04/04/11 08:31 |
| LCS | 1D04008-BS1 | 0404LS1.D | 04/04/11 09:08 |
| Blank | 1D04008-BLK1 | 0404BL1.D | 04/04/11 10:22 |
| 05-SS-027-0204 | 1103237-01RE1 | 0323701.D | 04/04/11 13:44 |
| 05-SS-028-0204 | 1103237-02RE1 | 0323702.D | 04/04/11 14:09 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D04008 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-027-0204 | 1103237-01RE1 | 04/04/11 00:00 | 4.34 | 5.00 |
| 05-SS-028-0204 | 1103237-02RE1 | 04/04/11 00:00 | 4.27 | 5.00 |
| Blank | 1D04008-BLK1 | 04/04/11 00:00 | 5.00 | 5.00 |
| LCS | 1D04008-BS1 | 04/04/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D04008-BLK1 | File ID: | 0404BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/04/11 10:22 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D04008 Sequence: 1D09501 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03080 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03120 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03567 | 119 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03021 | 101 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D04008 | Laboratory ID: | 1D04008-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.04000 | 0.03442 | 86.1 | 75 - 125 |
| Ethylbenzene | 0.04000 | 0.03820 | 95.5 | 75 - 125 |
| Methyl t-Butyl Ether | 0.04000 | 0.03667 | 91.7 | 55 - 150 |
| Toluene | 0.04000 | 0.03835 | 95.9 | 70 - 125 |
| Xylenes (total) | 0.1200 | 0.1179 | 98.3 | 75 - 125 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0404TUN1.D | Injection Date: | 04/04/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 08:07 |
| Sequence: | 1D0950I | Lab Sample ID: | 1D09501-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 28.5 | PASS |
| 75 | 30 - 60% of 95 | 48.7 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.76 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 71.6 | PASS |
| 175 | 5 - 9% of 174 | 7.58 | PASS |
| 176 | 95 - 101% of 174 | 97.4 | PASS |
| 177 | 5 - 9% of 176 | 6.62 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0404CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D09501 | Injection Date: | 04/04/11 |
| Lab Sample ID: | 1D09501-CCV1 | Injection Time: | 08:31 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 86.43 | 1.113159 | 0.9620933 | | -13.6 | 20 |
| Ethylbenzene | A | 100.0 | 103.1 | 3.20803 | 3.306636 | | 3.1 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 98.72 | 0.6002451 | 0.5925547 | | -1.3 | 20 |
| Toluene | A | 100.0 | 98.10 | 1.598242 | 1.567901 | | -1.9 | 20 |
| Xylenes (total) | A | 300.0 | 305.9 | 2.345902 | 2.392587 | | 2.0 | 20 |
| Bromofluorobenzene | A | 30.00 | 35.28 | 0.7951301 | 0.934965 | | 17.6 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.49 | 0.2924952 | 0.2972408 | | 1.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 28.66 | 5.404713E-02 | 0.0516307 | | -4.5 | 20 |
| Toluene-d8 | A | 30.00 | 34.80 | 2.103453 | 2.440338 | | 16.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09109 | Instrument: | MS-VOA5 |
| | | Calibration: | 1078001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09109-CCV1 )** | | | Lab File ID: 0331CC1.D | | | Analyzed: 03/31/11 06:17 | | | |
| Fluorobenzene | 1339243 | 13.203 | 1293879 | 13.193 | 104 | 50 - 200 | 0.0100 | +/-0.50 | |
| Chlorobenzene-d5 | 788729 | 16.681 | 767535 | 16.671 | 103 | 50 - 200 | 0.0100 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 689763 | 18.711 | 652164 | 18.701 | 106 | 50 - 200 | 0.0100 | +/-0.50 | |
| **LCS (1C31007-BS1 )** | | | Lab File ID: 0331LS1.D | | | Analyzed: 03/31/11 06:48 | | | |
| Fluorobenzene | 1455718 | 13.209 | 1339243 | 13.203 | 109 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 767736 | 16.678 | 788729 | 16.681 | 97 | 50 - 200 | -0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 700653 | 18.707 | 689763 | 18.711 | 102 | 50 - 200 | -0.0040 | +/-0.50 | |
| **Blank (1C31007-BLK1 )** | | | Lab File ID: 0331BL1.D | | | Analyzed: 03/31/11 08:16 | | | |
| Fluorobenzene | 1130739 | 13.206 | 1339243 | 13.203 | 84 | 50 - 200 | 0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 562570 | 16.674 | 788729 | 16.681 | 71 | 50 - 200 | -0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 512985 | 18.704 | 689763 | 18.711 | 74 | 50 - 200 | -0.0070 | +/-0.50 | |
| **TRIPBLANK 9488 (1103237-06 )** | | | Lab File ID: 0323706.D | | | Analyzed: 03/31/11 08:46 | | | |
| Fluorobenzene | 1066699 | 13.204 | 1339243 | 13.203 | 80 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 546438 | 16.672 | 788729 | 16.681 | 69 | 50 - 200 | -0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 483963 | 18.712 | 689763 | 18.711 | 70 | 50 - 200 | 0.0010 | +/-0.50 | |
| **TRIPBLANK 9489 (1103237-16 )** | | | Lab File ID: 0323716.D | | | Analyzed: 03/31/11 09:16 | | | |
| Fluorobenzene | 997709 | 13.206 | 1339243 | 13.203 | 74 | 50 - 200 | 0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 526371 | 16.674 | 788729 | 16.681 | 67 | 50 - 200 | -0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 467141 | 18.714 | 689763 | 18.711 | 68 | 50 - 200 | 0.0030 | +/-0.50 | |
| **EQUIPMENT BLANK 02 (1103237-15 )** | | | Lab File ID: 0323715.D | | | Analyzed: 03/31/11 09:47 | | | |
| Fluorobenzene | 992776 | 13.203 | 1339243 | 13.203 | 74 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 514168 | 16.682 | 788729 | 16.681 | 65 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 466686 | 18.712 | 689763 | 18.711 | 68 | 50 - 200 | 0.0010 | +/-0.50 | |
| **LCS Dup (1C31007-BSD1 )** | | | Lab File ID: 0331LD1.D | | | Analyzed: 03/31/11 17:21 | | | |
| Fluorobenzene | 1216348 | 13.216 | 1339243 | 13.203 | 91 | 50 - 200 | 0.0130 | +/-0.50 | |
| Chlorobenzene-d5 | 685487 | 16.684 | 788729 | 16.681 | 87 | 50 - 200 | 0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 633242 | 18.714 | 689763 | 18.711 | 92 | 50 - 200 | 0.0030 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09404 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09404-CCV1 )** | | | Lab File ID: 0401CCVE.D | | | Analyzed: 04/01/11 19:01 | | | |
| Fluorobenzene | 583887 | 7.938 | 1045538 | 7.941 | 56 | 50 - 200 | -0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 218378 | 11.046 | 467017 | 11.049 | 47 | 50 - 200 | -0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 225529 | 13.446 | 451772 | 13.448 | 50 | 50 - 200 | -0.0020 | +/-0.50 | |
| **LCS (1D01020-BS1 )** | | | Lab File ID: 0401LS1E.D | | | Analyzed: 04/01/11 19:25 | | | |
| Fluorobenzene | 582914 | 7.947 | 583887 | 7.938 | 100 | 50 - 200 | 0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 229417 | 11.055 | 218378 | 11.046 | 105 | 50 - 200 | 0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 227816 | 13.445 | 225529 | 13.446 | 101 | 50 - 200 | -0.0010 | +/-0.50 | |
| **Blank (1D01020-BLK1 )** | | | Lab File ID: 0401BL1E.D | | | Analyzed: 04/01/11 20:38 | | | |
| Fluorobenzene | 560320 | 7.936 | 583887 | 7.938 | 96 | 50 - 200 | -0.0020 | +/-0.50 | |
| Chlorobenzene-d5 | 246640 | 11.044 | 218378 | 11.046 | 113 | 50 - 200 | -0.0020 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 236608 | 13.444 | 225529 | 13.446 | 105 | 50 - 200 | -0.0020 | +/-0.50 | |
| **05-SS-030-1520 (1103237-03 )** | | | Lab File ID: 0323703.D | | | Analyzed: 04/01/11 21:02 | | | |
| Fluorobenzene | 529936 | 7.934 | 583887 | 7.938 | 91 | 50 - 200 | -0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 212321 | 11.052 | 218378 | 11.046 | 97 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 168927 | 13.442 | 225529 | 13.446 | 75 | 50 - 200 | -0.0040 | +/-0.50 | |
| **05-SS-030-1520-D (1103237-04 )** | | | Lab File ID: 0323704.D | | | Analyzed: 04/01/11 21:26 | | | |
| Fluorobenzene | 294523 | 7.933 | 583887 | 7.938 | 50 | 50 - 200 | -0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 127969 | 11.051 | 218378 | 11.046 | 59 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 118242 | 13.441 | 225529 | 13.446 | 52 | 50 - 200 | -0.0050 | +/-0.50 | |
| **05-SS-031-0204 (1103237-05 )** | | | Lab File ID: 0323705.D | | | Analyzed: 04/01/11 21:50 | | | |
| Fluorobenzene | 548450 | 7.938 | 583887 | 7.938 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 233086 | 11.046 | 218378 | 11.046 | 107 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 211750 | 13.436 | 225529 | 13.446 | 94 | 50 - 200 | -0.0100 | +/-0.50 | |
| **05-SS-032-0204 (1103237-07 )** | | | Lab File ID: 0323707.D | | | Analyzed: 04/01/11 22:14 | | | |
| Fluorobenzene | 549232 | 7.943 | 583887 | 7.938 | 94 | 50 - 200 | 0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 234623 | 11.05 | 218378 | 11.046 | 107 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 199076 | 13.44 | 225529 | 13.446 | 88 | 50 - 200 | -0.0060 | +/-0.50 | |
| **05-SS-033-0204 (1103237-08 )** | | | Lab File ID: 0323708.D | | | Analyzed: 04/01/11 22:38 | | | |
| Fluorobenzene | 534153 | 7.944 | 583887 | 7.938 | 91 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 226673 | 11.052 | 218378 | 11.046 | 104 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 195794 | 13.441 | 225529 | 13.446 | 87 | 50 - 200 | -0.0050 | +/-0.50 | |
| **05-SS-034-0204 (1103237-09 )** | | | Lab File ID: 0323709.D | | | Analyzed: 04/01/11 23:03 | | | |
| Fluorobenzene | 543968 | 7.949 | 583887 | 7.938 | 93 | 50 - 200 | 0.0110 | +/-0.50 | |
| Chlorobenzene-d5 | 230669 | 11.047 | 218378 | 11.046 | 106 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 197394 | 13.437 | 225529 | 13.446 | 88 | 50 - 200 | -0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09404 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-035-0204 (1103237-10 )** | | | Lab File ID: 0323710.D | | | Analyzed: 04/01/11 23:27 | | | |
| Fluorobenzene | 546438 | 7.947 | 583887 | 7.938 | 94 | 50 - 200 | 0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 227699 | 11.045 | 218378 | 11.046 | 104 | 50 - 200 | -0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 200855 | 13.435 | 225529 | 13.446 | 89 | 50 - 200 | -0.0110 | +/-0.50 | |
| **05-SS-036-0204 (1103237-11 )** | | | Lab File ID: 0323711.D | | | Analyzed: 04/01/11 23:52 | | | |
| Fluorobenzene | 535677 | 7.939 | 583887 | 7.938 | 92 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 224175 | 11.047 | 218378 | 11.046 | 103 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 198203 | 13.437 | 225529 | 13.446 | 88 | 50 - 200 | -0.0090 | +/-0.50 | |
| **05-SS-066-0406 (1103237-12 )** | | | Lab File ID: 0323712.D | | | Analyzed: 04/02/11 00:16 | | | |
| Fluorobenzene | 544200 | 7.939 | 583887 | 7.938 | 93 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 231188 | 11.047 | 218378 | 11.046 | 106 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 212004 | 13.437 | 225529 | 13.446 | 94 | 50 - 200 | -0.0090 | +/-0.50 | |
| **05-SS-068-0406 (1103237-13 )** | | | Lab File ID: 0323713.D | | | Analyzed: 04/02/11 00:40 | | | |
| Fluorobenzene | 527000 | 7.943 | 583887 | 7.938 | 90 | 50 - 200 | 0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 219322 | 11.051 | 218378 | 11.046 | 100 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 175638 | 13.441 | 225529 | 13.446 | 78 | 50 - 200 | -0.0050 | +/-0.50 | |
| **05-SS-069-0406 (1103237-14 )** | | | Lab File ID: 0323714.D | | | Analyzed: 04/02/11 01:05 | | | |
| Fluorobenzene | 545716 | 7.947 | 583887 | 7.938 | 93 | 50 - 200 | 0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 231801 | 11.055 | 218378 | 11.046 | 106 | 50 - 200 | 0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 205640 | 13.444 | 225529 | 13.446 | 91 | 50 - 200 | -0.0020 | +/-0.50 | |
| **LCS Dup (1D01020-BSD1 )** | | | Lab File ID: 0401LD1E.D | | | Analyzed: 04/02/11 01:28 | | | |
| Fluorobenzene | 553963 | 7.943 | 583887 | 7.938 | 95 | 50 - 200 | 0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 229886 | 11.051 | 218378 | 11.046 | 105 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 219809 | 13.441 | 225529 | 13.446 | 97 | 50 - 200 | -0.0050 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09501 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09501-CCV1 )** | | | Lab File ID: 0404CCV1.D | | | Analyzed: 04/04/11 08:31 | | | |
| Fluorobenzene | 657477 | 7.944 | 1045538 | 7.941 | 63 | 50 - 200 | 0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 240363 | 11.062 | 467017 | 11.049 | 51 | 50 - 200 | 0.0130 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 238538 | 13.452 | 451772 | 13.448 | 53 | 50 - 200 | 0.0040 | +/-0.50 | |
| **LCS (1D04008-BS1 )** | | | Lab File ID: 0404LS1.D | | | Analyzed: 04/04/11 09:08 | | | |
| Fluorobenzene | 648121 | 7.948 | 657477 | 7.944 | 99 | 50 - 200 | 0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 259631 | 11.056 | 240363 | 11.062 | 108 | 50 - 200 | -0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 242497 | 13.446 | 238538 | 13.452 | 102 | 50 - 200 | -0.0060 | +/-0.50 | |
| **Blank (1D04008-BLK1 )** | | | Lab File ID: 0404BL1.D | | | Analyzed: 04/04/11 10:22 | | | |
| Fluorobenzene | 668563 | 7.95 | 657477 | 7.944 | 102 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 288725 | 11.057 | 240363 | 11.062 | 120 | 50 - 200 | -0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 269516 | 13.447 | 238538 | 13.452 | 113 | 50 - 200 | -0.0050 | +/-0.50 | |
| **05-SS-027-0204 (1103237-01RE1 )** | | | Lab File ID: 0323701.D | | | Analyzed: 04/04/11 13:44 | | | |
| Fluorobenzene | 629981 | 7.954 | 657477 | 7.944 | 96 | 50 - 200 | 0.0100 | +/-0.50 | |
| Chlorobenzene-d5 | 269791 | 11.061 | 240363 | 11.062 | 112 | 50 - 200 | -0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 232264 | 13.451 | 238538 | 13.452 | 97 | 50 - 200 | -0.0010 | +/-0.50 | |
| **05-SS-028-0204 (1103237-02RE1 )** | | | Lab File ID: 0323702.D | | | Analyzed: 04/04/11 14:09 | | | |
| Fluorobenzene | 623318 | 7.945 | 657477 | 7.944 | 95 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 257539 | 11.053 | 240363 | 11.062 | 107 | 50 - 200 | -0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 224698 | 13.443 | 238538 | 13.452 | 94 | 50 - 200 | -0.0090 | +/-0.50 | |

# Data for SW8011 Forms

# HOLDING TIME SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| EQUIPMENT BLANK 02 | 03/28/11 16:30 | 03/29/11 08:45 | 04/06/11 13:34 | N/A | 14.00 | 04/06/11 23:44 | 9.34 | 14.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |
| Cal Standard | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| Initial Cal Check | 0L34409-ICV1 | 010R0101.D | 12/09/10 17:04 |
| Initial Cal Check | 0L34409-ICV1 | 010F0101.D | 12/09/10 17:04 |

# INITIAL CALIBRATION STANDARDS

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |

# INITIAL CALIBRATION DATA

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,2-Dibromoethane | 1 | 14540 | 0.5 | 15516 | 0.4 | 15402.5 | 0.2 | 16590 | 0.15 | 15980 | 0.1 | ~~17600~~ |
| 1,2-Dibromoethane [2C] | 1 | 29076 | 0.5 | 33560 | 0.4 | 33402.5 | 0.2 | 38785 | 0.15 | 37866.67 | 0.1 | ~~42050~~ |
| 1,2-Dibromo-3-chloropropane | 1 | 24442 | 0.5 | 28986 | 0.4 | 28852.5 | 0.2 | 31650 | 0.15 | 31693.33 | 0.1 | ~~45080~~ |
| 1,2-Dibromo-3-chloropropane [2C] | 1 | 69695 | 0.5 | 78930 | 0.4 | 76647.5 | 0.2 | 85730 | 0.15 | 88033.34 | 0.1 | ~~105150~~ |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 0344003 | Instrument: | GL-ECD2 | |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 | 12/9/10 16:42 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,2-Dibromoethane | 0.05 | 23100 | 0.03 | 21300 | | | | | | | | |
| 1,2-Dibromoethane [2C] | 0.05 | 45260 | 0.03 | 42333.33 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 0.05 | 52760 | 0.03 | 51166.67 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane [2C] | 0.05 | 155180 | 0.03 | 148933.3 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 17489.79 | 18.96825 | 1.543 | 1.749237E-02 | | 0.9996372 | CCC () | * |
| 1,2-Dibromoethane [2C] | 37183.36 | 15.05167 | 0.583 | 2.248094E-02 | | 0.9995717 | CCC () | * |
| 1,2-Dibromo-3-chloropropane | 35650.07 | 32.01128 | 6.973 | 2.748517E-02 | | 0.9987968 | CCC () | * |
| 1,2-Dibromo-3-chloropropane [2C] | 100449.9 | 35.64558 | 4.139286 | 5.910871E-02 | | 0.9986728 | CCC () | * |

# INITIAL CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 010F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 0L34409 | Injection Date: | 12/09/10 |
| Lab Sample ID: | 0L34409-ICV1 | Injection Time: | 17:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4746 | 17489.79 | 14620 | | -5.1 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4584 | 37183.36 | 30824 | | -8.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09807 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D09807-CCV1 | 001R0201.D | 04/06/11 20:15 |
| Calibration Check | 1D09807-CCV1 | 001F0201.D | 04/06/11 20:15 |
| LCS | 1D06013-BS1 | 003R0201.D | 04/06/11 20:53 |
| LCS | 1D06013-BS1 | 003F0201.D | 04/06/11 20:53 |
| Blank | 1D06013-BLK1 | 004R0201.D | 04/06/11 21:14 |
| EQUIPMENT BLANK 02 | 1103237-15 | 011R0201.D | 04/06/11 23:44 |
| Calibration Check | 1D09807-CCV2 | 016R0201.D | 04/07/11 01:30 |
| Calibration Check | 1D09807-CCV2 | 016F0201.D | 04/07/11 01:30 |

# PREPARATION BATCH SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06013 Batch Matrix: Water Preparation: EDB

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIPMENT BLANK 02 | 1103237-15 | 04/06/11 13:34 | 43.10 | 35.00 |
| Blank | 1D06013-BLK1 | 04/06/11 13:34 | 35.00 | 35.00 |
| LCS | 1D06013-BS1 | 04/06/11 13:34 | 35.00 | 35.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D06013-BLK1 | File ID: | 004R0201.D |
| Sampled: | | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 21:14 |
| Solids: | | Preparation: | EDB | Dilution: | |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# LCS / LCS DUPLICATE RECOVERY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D06013 | Laboratory ID: | 1D06013-BS1 |
| Preparation: | EDB | Initial/Final: | 35 mL / 35 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.5000 | 0.4852 | 97.0 | 70 - 130 |
| 1,2-Dibromoethane [2C] | 0.5000 | 0.5215 | 104 | 70 - 130 |

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 001F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/06/11 |
| Lab Sample ID: | 1D09807-CCV1 | Injection Time: | 20:15 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5866 | 17489.79 | 17802 | | 17.3 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5525 | 37183.36 | 36050 | | 10.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 016F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09807-CCV2 | Injection Time: | 01:30 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5615 | 17489.79 | 17096 | | 12.3 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5900 | 37183.36 | 38070 | | 18.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_003

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** GL-ECD2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0100 | 0.0300 | ug/L | SW8011 |

# Data for SW8270C (PAH) Forms

# HOLDING TIME SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-027-0204 | 03/28/11 07:05 | 03/29/11 08:45 | 04/07/11 15:36 | 10.40 | 14.00 | 04/08/11 21:00 | 1.23 | 40.00 | |
| 05-SS-028-0204 | 03/28/11 07:35 | 03/29/11 08:45 | 04/07/11 15:36 | 10.38 | 14.00 | 04/08/11 21:28 | 1.24 | 40.00 | |
| 05-SS-030-1520 | 03/28/11 08:32 | 03/29/11 08:45 | 04/07/11 15:36 | 10.34 | 14.00 | 04/09/11 03:00 | 1.47 | 40.00 | |
| 05-SS-030-1520-D | 03/28/11 08:32 | 03/29/11 08:45 | 04/07/11 15:36 | 10.34 | 14.00 | 04/09/11 03:27 | 1.49 | 40.00 | |
| 05-SS-031-0204 | 03/28/11 08:50 | 03/29/11 08:45 | 04/07/11 15:36 | 10.32 | 14.00 | 04/09/11 03:55 | 1.51 | 40.00 | |
| 05-SS-032-0204 | 03/28/11 09:15 | 03/29/11 08:45 | 04/07/11 15:36 | 10.31 | 14.00 | 04/12/11 19:58 | 5.18 | 40.00 | |
| 05-SS-033-0204 | 03/28/11 09:45 | 03/29/11 08:45 | 04/07/11 15:36 | 10.29 | 14.00 | 04/12/11 20:26 | 5.20 | 40.00 | |
| 05-SS-034-0204 | 03/28/11 10:10 | 03/29/11 08:45 | 04/07/11 15:36 | 10.27 | 14.00 | 04/12/11 20:53 | 5.22 | 40.00 | |
| 05-SS-035-0204 | 03/28/11 10:25 | 03/29/11 08:45 | 04/07/11 15:36 | 10.26 | 14.00 | 04/12/11 21:21 | 5.24 | 40.00 | |
| 05-SS-036-0204 | 03/28/11 10:55 | 03/29/11 08:45 | 04/07/11 15:36 | 10.24 | 14.00 | 04/08/11 21:55 | 1.26 | 40.00 | |
| 05-SS-066-0406 | 03/28/11 14:20 | 03/29/11 08:45 | 04/07/11 15:36 | 10.09 | 14.00 | 04/08/11 22:23 | 1.28 | 40.00 | |
| 05-SS-068-0406 | 03/28/11 15:45 | 03/29/11 08:45 | 04/07/11 15:36 | 10.04 | 14.00 | 04/12/11 21:49 | 5.26 | 40.00 | |
| 05-SS-069-0406 | 03/28/11 16:10 | 03/29/11 08:45 | 04/07/11 15:36 | 10.02 | 14.00 | 04/08/11 22:51 | 1.30 | 40.00 | |
| EQUIPMENT BLANK 02 | 03/28/11 16:30 | 03/29/11 08:45 | 04/01/11 11:25 | 3.83 | 7.00 | 04/04/11 18:51 | 3.31 | 40.00 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09509-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/04/11 14:11 | | |
| 2-Fluorobiphenyl | 5.000 | 98.1 | 80 - 120 | 8.434 | 8.434 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 105 | 80 - 120 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |
| **LCS (1C31016-BS1 ) ug/L** | | | | Lab File ID: C31016L1.D | | Analyzed: 04/04/11 17:27 | | |
| 2-Fluorobiphenyl | 50.00 | 74.5 | 34 - 167 | 8.435 | 8.434 | 0.0010 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 72.9 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **Blank (1C31016-BLK1 ) ug/L** | | | | Lab File ID: C31016B1.D | | Analyzed: 04/04/11 18:23 | | |
| 2-Fluorobiphenyl | 50.00 | 69.1 | 34 - 167 | 8.435 | 8.434 | 0.0010 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 78.2 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **EQUIPMENT BLANK 02 (1103237-15 ) ug/L** | | | | Lab File ID: 0323715.D | | Analyzed: 04/04/11 18:51 | | |
| 2-Fluorobiphenyl | 47.17 | 69.0 | 34 - 167 | 8.434 | 8.434 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 47.17 | 57.9 | 34 - 167 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09607-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/05/11 11:31 | | |
| 2-Fluorobiphenyl | 5.000 | 106 | 80 - 120 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 102 | 80 - 120 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |
| **LCS Dup (1C31016-BSD1 ) ug/L** | | | | Lab File ID: C3116L2R.D | | Analyzed: 04/05/11 12:55 | | |
| 2-Fluorobiphenyl | 50.00 | 69.7 | 34 - 167 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 66.0 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10202 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10202-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/08/11 16:48 | | |
| 2-Fluorobiphenyl | 5.000 | 92.9 | 80 - 120 | 8.355 | 8.355 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 96.8 | 80 - 120 | 14.035 | 14.035 | 0.0000 | +/-0.500 | |
| **LCS (1D05024-BS1 ) mg/Kg wet** | | | | Lab File ID: D05024L1.D | | Analyzed: 04/08/11 20:05 | | |
| 2-Fluorobiphenyl | 3.333 | 89.2 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 96.0 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **Blank (1D05024-BLK1 ) mg/Kg wet** | | | | Lab File ID: D05024B1.D | | Analyzed: 04/08/11 20:32 | | |
| 2-Fluorobiphenyl | 3.333 | 101 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 109 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-027-0204 (1103237-01 ) mg/Kg dry** | | | | Lab File ID: 0323701.D | | Analyzed: 04/08/11 21:00 | | |
| 2-Fluorobiphenyl | 3.677 | 90.7 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.677 | 92.2 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-028-0204 (1103237-02 ) mg/Kg dry** | | | | Lab File ID: 0323702.D | | Analyzed: 04/08/11 21:28 | | |
| 2-Fluorobiphenyl | 3.560 | 96.0 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.560 | 93.9 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-036-0204 (1103237-11 ) mg/Kg dry** | | | | Lab File ID: 0323711.D | | Analyzed: 04/08/11 21:55 | | |
| 2-Fluorobiphenyl | 3.905 | 92.0 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.905 | 91.8 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-066-0406 (1103237-12 ) mg/Kg dry** | | | | Lab File ID: 0323712.D | | Analyzed: 04/08/11 22:23 | | |
| 2-Fluorobiphenyl | 3.583 | 86.3 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.583 | 92.9 | 14 - 129 | 14.054 | 14.035 | 0.0190 | +/-0.500 | |
| **05-SS-069-0406 (1103237-14 ) mg/Kg dry** | | | | Lab File ID: 0323714.D | | Analyzed: 04/08/11 22:51 | | |
| 2-Fluorobiphenyl | 3.570 | 82.8 | 14 - 129 | 8.355 | 8.355 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.570 | 96.8 | 14 - 129 | 14.054 | 14.035 | 0.0190 | +/-0.500 | |
| **Matrix Spike (1D05024-MS1 ) mg/Kg dry** | | | | Lab File ID: 0325704M.D | | Analyzed: 04/09/11 01:09 | | |
| 2-Fluorobiphenyl | 3.746 | 85.3 | 14 - 129 | 8.355 | 8.355 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.746 | 92.9 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **Matrix Spike Dup (1D05024-MSD1 ) mg/Kg dry** | | | | Lab File ID: 0325704S.D | | Analyzed: 04/09/11 01:37 | | |
| 2-Fluorobiphenyl | 3.650 | 94.3 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.650 | 99.7 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-030-1520 (1103237-03 ) mg/Kg dry** | | | | Lab File ID: 0323703.D | | Analyzed: 04/09/11 03:00 | | |
| 2-Fluorobiphenyl | 3.843 | 95.0 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.843 | 89.7 | 14 - 129 | 14.054 | 14.035 | 0.0190 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10202 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-030-1520-D (1103237-04 ) mg/Kg dry** | | | | Lab File ID: 0323704.D | | Analyzed: 04/09/11 03:27 | | |
| 2-Fluorobiphenyl | 3.772 | 92.3 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.772 | 97.1 | 14 - 129 | 14.054 | 14.035 | 0.0190 | +/-0.500 | |
| **05-SS-031-0204 (1103237-05 ) mg/Kg dry** | | | | Lab File ID: 0323705.D | | Analyzed: 04/09/11 03:55 | | |
| 2-Fluorobiphenyl | 3.687 | 86.2 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.687 | 87.6 | 14 - 129 | 14.054 | 14.035 | 0.0190 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10409 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10409-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/12/11 11:02 | | |
| 2-Fluorobiphenyl | 5.000 | 93.0 | 80 - 120 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 96.4 | 80 - 120 | 13.981 | 13.981 | 0.0000 | +/-0.500 | |
| **05-SS-032-0204 (1103237-07 ) mg/Kg dry** | | | | Lab File ID: 0323707.D | | Analyzed: 04/12/11 19:58 | | |
| 2-Fluorobiphenyl | 3.601 | 84.6 | 14 - 129 | 8.319 | 8.31 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.601 | 99.3 | 14 - 129 | 13.999 | 13.981 | 0.0180 | +/-0.500 | |
| **05-SS-033-0204 (1103237-08 ) mg/Kg dry** | | | | Lab File ID: 0323708.D | | Analyzed: 04/12/11 20:26 | | |
| 2-Fluorobiphenyl | 3.552 | 89.3 | 14 - 129 | 8.319 | 8.31 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.552 | 97.7 | 14 - 129 | 13.999 | 13.981 | 0.0180 | +/-0.500 | |
| **05-SS-034-0204 (1103237-09 ) mg/Kg dry** | | | | Lab File ID: 0323709.D | | Analyzed: 04/12/11 20:53 | | |
| 2-Fluorobiphenyl | 3.687 | 86.5 | 14 - 129 | 8.32 | 8.31 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.687 | 91.9 | 14 - 129 | 14 | 13.981 | 0.0190 | +/-0.500 | |
| **05-SS-035-0204 (1103237-10 ) mg/Kg dry** | | | | Lab File ID: 0323710.D | | Analyzed: 04/12/11 21:21 | | |
| 2-Fluorobiphenyl | 3.762 | 88.8 | 14 - 129 | 8.32 | 8.31 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.762 | 92.2 | 14 - 129 | 14 | 13.981 | 0.0190 | +/-0.500 | |
| **05-SS-068-0406 (1103237-13 ) mg/Kg dry** | | | | Lab File ID: 0323713.D | | Analyzed: 04/12/11 21:49 | | |
| 2-Fluorobiphenyl | 3.807 | 85.9 | 14 - 129 | 8.319 | 8.31 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.807 | 90.0 | 14 - 129 | 14.009 | 13.981 | 0.0280 | +/-0.500 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09509-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/04/11 14:11 | | | |
| Phenanthrene-d10 | 120288 | 11.66 | 106904 | 11.432 | 113 | 50 - 200 | 0.2280 | +/-0.50 | |
| Perylene-d12 | 74767 | 17.712 | 80420 | 16.536 | 93 | 50 - 200 | 1.1760 | +/-0.50 | |
| **LCS (1C31016-BS1 )** | | | Lab File ID: C31016L1.D | | | Analyzed: 04/04/11 17:27 | | | |
| Phenanthrene-d10 | 117501 | 11.661 | 120288 | 11.66 | 98 | 50 - 200 | 0.0010 | +/-0.50 | |
| Perylene-d12 | 65697 | 17.722 | 74767 | 17.712 | 88 | 50 - 200 | 0.0100 | +/-0.50 | |
| **Blank (1C31016-BLK1 )** | | | Lab File ID: C31016B1.D | | | Analyzed: 04/04/11 18:23 | | | |
| Phenanthrene-d10 | 98610 | 11.67 | 120288 | 11.66 | 82 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 43626 | 17.731 | 74767 | 17.712 | 58 | 50 - 200 | 0.0190 | +/-0.50 | |
| **EQUIPMENT BLANK 02 (1103237-15 )** | | | Lab File ID: 0323715.D | | | Analyzed: 04/04/11 18:51 | | | |
| Phenanthrene-d10 | 102156 | 11.66 | 120288 | 11.66 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 54007 | 17.722 | 74767 | 17.712 | 72 | 50 - 200 | 0.0100 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09607-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/05/11 11:31 | | | |
| Phenanthrene-d10 | 121484 | 11.66 | 106904 | 11.432 | 114 | 50 - 200 | 0.2280 | +/-0.50 | |
| Perylene-d12 | 68092 | 17.712 | 80420 | 16.536 | 85 | 50 - 200 | 1.1760 | +/-0.50 | |
| **LCS Dup (1C31016-BSD1 )** | | | Lab File ID: C3116L2R.D | | | Analyzed: 04/05/11 12:55 | | | |
| Phenanthrene-d10 | 136897 | 11.66 | 121484 | 11.66 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 87466 | 17.712 | 68092 | 17.712 | 128 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10202 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10202-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/08/11 16:48 | | | |
| Phenanthrene-d10 | 167448 | 11.572 | 106904 | 11.432 | 157 | 50 - 200 | 0.1400 | +/-0.50 | |
| Perylene-d12 | 86697 | 17.605 | 80420 | 16.536 | 108 | 50 - 200 | 1.0690 | +/-0.50 | |
| **LCS (1D05024-BS1 )** | | | Lab File ID: D05024L1.D | | | Analyzed: 04/08/11 20:05 | | | |
| Phenanthrene-d10 | 148528 | 11.572 | 167448 | 11.572 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 81769 | 17.605 | 86697 | 17.605 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1D05024-BLK1 )** | | | Lab File ID: D05024B1.D | | | Analyzed: 04/08/11 20:32 | | | |
| Phenanthrene-d10 | 135319 | 11.572 | 167448 | 11.572 | 81 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 62524 | 17.605 | 86697 | 17.605 | 72 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-027-0204 (1103237-01 )** | | | Lab File ID: 0323701.D | | | Analyzed: 04/08/11 21:00 | | | |
| Phenanthrene-d10 | 132111 | 11.572 | 167448 | 11.572 | 79 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 59213 | 17.605 | 86697 | 17.605 | 68 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-028-0204 (1103237-02 )** | | | Lab File ID: 0323702.D | | | Analyzed: 04/08/11 21:28 | | | |
| Phenanthrene-d10 | 133545 | 11.572 | 167448 | 11.572 | 80 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 54368 | 17.605 | 86697 | 17.605 | 63 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-036-0204 (1103237-11 )** | | | Lab File ID: 0323711.D | | | Analyzed: 04/08/11 21:55 | | | |
| Phenanthrene-d10 | 130395 | 11.572 | 167448 | 11.572 | 78 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 63483 | 17.605 | 86697 | 17.605 | 73 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-066-0406 (1103237-12 )** | | | Lab File ID: 0323712.D | | | Analyzed: 04/08/11 22:23 | | | |
| Phenanthrene-d10 | 154072 | 11.572 | 167448 | 11.572 | 92 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 92302 | 17.605 | 86697 | 17.605 | 106 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-069-0406 (1103237-14 )** | | | Lab File ID: 0323714.D | | | Analyzed: 04/08/11 22:51 | | | |
| Phenanthrene-d10 | 159041 | 11.572 | 167448 | 11.572 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 105064 | 17.605 | 86697 | 17.605 | 121 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike (1D05024-MS1 )** | | | Lab File ID: 0325704M.D | | | Analyzed: 04/09/11 01:09 | | | |
| Phenanthrene-d10 | 137955 | 11.572 | 167448 | 11.572 | 82 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 85858 | 17.605 | 86697 | 17.605 | 99 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike Dup (1D05024-MSD1 )** | | | Lab File ID: 0325704S.D | | | Analyzed: 04/09/11 01:37 | | | |
| Phenanthrene-d10 | 140212 | 11.572 | 167448 | 11.572 | 84 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 75427 | 17.605 | 86697 | 17.605 | 87 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-030-1520 (1103237-03 )** | | | Lab File ID: 0323703.D | | | Analyzed: 04/09/11 03:00 | | | |
| Phenanthrene-d10 | 138327 | 11.572 | 167448 | 11.572 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 65546 | 17.615 | 86697 | 17.605 | 76 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-030-1520-D (1103237-04 )** | | | Lab File ID: 0323704.D | | | Analyzed: 04/09/11 03:27 | | | |
| Phenanthrene-d10 | 146481 | 11.572 | 167448 | 11.572 | 87 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 82266 | 17.615 | 86697 | 17.605 | 95 | 50 - 200 | 0.0100 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10202 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-031-0204 (1103237-05 )** | | | Lab File ID: 0323705.D | | | Analyzed: 04/09/11 03:55 | | | |
| Phenanthrene-d10 | 139535 | 11.572 | 167448 | 11.572 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 71830 | 17.614 | 86697 | 17.605 | 83 | 50 - 200 | 0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10409 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10409-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/12/11 11:02 | | | |
| Phenanthrene-d10 | 125430 | 11.517 | 106904 | 11.432 | 117 | 50 - 200 | 0.0850 | +/-0.50 | |
| Perylene-d12 | 75240 | 17.56 | 80420 | 16.536 | 94 | 50 - 200 | 1.0240 | +/-0.50 | |
| **05-SS-032-0204 (1103237-07 )** | | | Lab File ID: 0323707.D | | | Analyzed: 04/12/11 19:58 | | | |
| Phenanthrene-d10 | 120819 | 11.527 | 125430 | 11.517 | 96 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 81218 | 17.569 | 75240 | 17.56 | 108 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-033-0204 (1103237-08 )** | | | Lab File ID: 0323708.D | | | Analyzed: 04/12/11 20:26 | | | |
| Phenanthrene-d10 | 113579 | 11.527 | 125430 | 11.517 | 91 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 69248 | 17.569 | 75240 | 17.56 | 92 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-034-0204 (1103237-09 )** | | | Lab File ID: 0323709.D | | | Analyzed: 04/12/11 20:53 | | | |
| Phenanthrene-d10 | 105003 | 11.527 | 125430 | 11.517 | 84 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 62134 | 17.569 | 75240 | 17.56 | 83 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-035-0204 (1103237-10 )** | | | Lab File ID: 0323710.D | | | Analyzed: 04/12/11 21:21 | | | |
| Phenanthrene-d10 | 119156 | 11.527 | 125430 | 11.517 | 95 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 70548 | 17.569 | 75240 | 17.56 | 94 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-068-0406 (1103237-13 )** | | | Lab File ID: 0323713.D | | | Analyzed: 04/12/11 21:49 | | | |
| Phenanthrene-d10 | 118219 | 11.527 | 125430 | 11.517 | 94 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 62117 | 17.569 | 75240 | 17.56 | 83 | 50 - 200 | 0.0090 | +/-0.50 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C06115 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C06115-TUN1 | SEQ-TUN1.D | 02/28/11 19:40 |
| Cal Standard | 1C06115-CAL1 | SEQ-CAL1.D | 02/28/11 19:58 |
| Cal Standard | 1C06115-CAL2 | SEQ-CAL2.D | 02/28/11 20:24 |
| Cal Standard | 1C06115-CAL3 | SEQ-CAL3.D | 02/28/11 20:50 |
| Cal Standard | 1C06115-CAL4 | SEQ-CAL4.D | 02/28/11 21:16 |
| Cal Standard | 1C06115-CAL5 | SEQ-CAL5.D | 02/28/11 21:42 |
| Cal Standard | 1C06115-CAL6 | SEQ-CAL6.D | 02/28/11 22:08 |
| Cal Standard | 1C06115-CAL7 | SEQ-CAL7.D | 02/28/11 22:35 |
| Cal Standard | 1C06115-CAL8 | SEQ-CAL8.D | 02/28/11 23:01 |
| MS Tune | 1C06115-TUN2 | SEQ-TUN1.D | 03/01/11 12:01 |
| Initial Cal Check | 1C06115-ICV1 | SEQ-ICV1.D | 03/01/11 12:19 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 02/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 19:40 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 54 | PASS |
| 68 | Less than 2% of 69 | 1.39 | PASS |
| 69 | Less than 200% of 198 | 52.7 | PASS |
| 70 | Less than 2% of 69 | 0.407 | PASS |
| 127 | 40 - 60% of 198 | 57.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 25.3 | PASS |
| 365 | 1 - 200% of 198 | 3.37 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 20.3 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/01/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:01 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.55 | PASS |
| 69 | Less than 200% of 198 | 50.4 | PASS |
| 70 | Less than 2% of 69 | 0.486 | PASS |
| 127 | 40 - 60% of 198 | 56.1 | PASS |
| 197 | Less than 1% of 198 | 1 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.03 | PASS |
| 275 | 10 - 30% of 198 | 25.6 | PASS |
| 365 | 1 - 200% of 198 | 3.45 | PASS |
| 441 | 0.001 - 100% of 443 | 82.1 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 0.2 | 0.8535207 | 0.5 | 0.873421 | 1 | 0.9064357 | 5 | 0.8395738 | 10 | 0.784535 | 20 | 0.8168652 |
| Acenaphthylene | 0.2 | 1.382044 | 0.5 | 1.218477 | 1 | 1.435272 | 5 | 1.311268 | 10 | 1.208637 | 20 | 1.217291 |
| Anthracene | 0.2 | 1.058534 | 0.5 | 1.093939 | 1 | 1.125915 | 5 | 1.133941 | 10 | 1.170225 | 20 | 1.132615 |
| Benzo(a)anthracene | 0.2 | 0.6476147 | 0.5 | 0.7623581 | 1 | 0.8156699 | 5 | 0.8984042 | 10 | 1.054533 | 20 | 0.8423353 |
| Benzo(a)pyrene | 0.2 | 1.02565 | 0.5 | 1.014554 | 1 | 1.005352 | 5 | 1.046623 | 10 | 1.13987 | 20 | 1.083464 |
| Benzo(b)fluoranthene | 0.2 | 1.352174 | 0.5 | 1.123357 | 1 | 1.241503 | 5 | 1.234178 | 10 | 1.470413 | 20 | 1.430442 |
| Benzo(g,h,i)perylene | 0.2 | 1.25079 | 0.5 | 0.9738602 | 1 | 0.9538002 | 5 | 0.8937802 | 10 | 0.8523731 | 20 | 0.9100527 |
| Benzo(k)fluoranthene | 0.2 | 1.25079 | 0.5 | 1.187413 | 1 | 1.228864 | 5 | 1.399423 | 10 | 1.350928 | 20 | 1.327367 |
| Chrysene | 0.2 | 0.7374538 | 0.5 | 0.8493865 | 1 | 0.842695 | 5 | 0.9126712 | 10 | 1.060452 | 20 | 0.7892754 |
| Dibenz(a,h)anthracene | 0.2 | 0.9186101 | 0.5 | 0.772847 | 1 | 0.7332764 | 5 | 0.807053 | 10 | 0.8074299 | 20 | 0.8601228 |
| Fluoranthene | 0.2 | 1.051742 | 0.5 | 1.162418 | 1 | 1.179913 | 5 | 1.225501 | 10 | 1.272376 | 20 | 1.210129 |
| Fluorene | 0.2 | 0.7020536 | 0.5 | 0.7674959 | 1 | 0.8242432 | 5 | 0.8055957 | 10 | 0.8027371 | 20 | 0.8141917 |
| 2-Fluorobiphenyl | 0.2 | 0.9678027 | 0.5 | 0.9267382 | 1 | 0.971158 | 5 | 0.9172978 | 10 | 0.8347461 | 20 | 0.8721172 |
| Indeno(1,2,3-cd)pyrene | 0.2 | 1.19648 | 0.5 | 1.0475 | 1 | 1.041161 | 5 | 1.035051 | 10 | 1.034813 | 20 | 1.078813 |
| 1-Methylnaphthalene | 0.2 | 1.063294 | 0.5 | 0.9409067 | 1 | 0.9548364 | 5 | 0.8620632 | 10 | 0.8000648 | 20 | 0.8432121 |
| 2-Methylnaphthalene | 0.2 | 1.091703 | 0.5 | 0.9503314 | 1 | 0.953009 | 5 | 0.8485033 | 10 | 0.790738 | 20 | 0.8347751 |
| Naphthalene | 0.2 | 1.685474 | 0.5 | 1.472423 | 1 | 1.51616 | 5 | 1.341546 | 10 | 1.240043 | 20 | 1.318205 |
| Phenanthrene | 0.2 | 1.134937 | 0.5 | 1.1581 | 1 | 1.184863 | 5 | 1.175284 | 10 | 1.202262 | 20 | 1.17303 |
| Pyrene | 0.2 | 1.092794 | 0.5 | 1.147446 | 1 | 1.174827 | 5 | 1.234693 | 10 | 1.289576 | 20 | 1.223257 |
| Terphenyl-d14 | 0.2 | 0.6118179 | 0.5 | 0.7063144 | 1 | 0.7228992 | 5 | 0.7705175 | 10 | 0.8117648 | 20 | 0.7422102 |
| 2,4,6-Tribromophenol | 0.4 | ~~6.326415E-02~~ | 1 | ~~8.579129E-02~~ | 2 | ~~0.1089983~~ | 10 | 0.1584169 | 20 | 0.1656128 | 40 | 0.175367 |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |
| Acenaphthene | 0.2 | 0.8535207 | 0.5 | 0.873421 | 1 | 0.9064357 | 5 | 0.8395738 | 10 | 0.784535 | 20 | 0.8168652 |
| Acenaphthylene | 0.2 | 1.382044 | 0.5 | 1.218477 | 1 | 1.435272 | 5 | 1.311268 | 10 | 1.208637 | 20 | 1.217291 |
| Anthracene | 0.2 | 1.058534 | 0.5 | 1.093939 | 1 | 1.125915 | 5 | 1.133941 | 10 | 1.170225 | 20 | 1.132615 |
| Benzo(a)anthracene | 0.2 | 0.6476147 | 0.5 | 0.7623581 | 1 | 0.8156699 | 5 | 0.8984042 | 10 | 1.054533 | 20 | 0.8423353 |
| Benzo(a)pyrene | 0.2 | 1.02565 | 0.5 | 1.014554 | 1 | 1.005352 | 5 | 1.046623 | 10 | 1.13987 | 20 | 1.083464 |
| Benzo(b)fluoranthene | 0.2 | 1.352174 | 0.5 | 1.123357 | 1 | 1.241503 | 5 | 1.234178 | 10 | 1.470413 | 20 | 1.430442 |
| Benzo(g,h,i)perylene | 0.2 | 1.25079 | 0.5 | 0.9738602 | 1 | 0.9538002 | 5 | 0.8937802 | 10 | 0.8523731 | 20 | 0.9100527 |
| Benzo(k)fluoranthene | 0.2 | 1.25079 | 0.5 | 1.187413 | 1 | 1.228864 | 5 | 1.399423 | 10 | 1.350928 | 20 | 1.327367 |
| Chrysene | 0.2 | 0.7374538 | 0.5 | 0.8493865 | 1 | 0.842695 | 5 | 0.9126712 | 10 | 1.060452 | 20 | 0.7892754 |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Dibenz(a,h)anthracene | 0.2 | 0.9186101 | 0.5 | 0.772847 | 1 | 0.7332764 | 5 | 0.807053 | 10 | 0.8074299 | 20 | 0.8601228 |
| Fluoranthene | 0.2 | 1.051742 | 0.5 | 1.162418 | 1 | 1.179913 | 5 | 1.225501 | 10 | 1.272376 | 20 | 1.210129 |
| Fluorene | 0.2 | 0.7020536 | 0.5 | 0.7674959 | 1 | 0.8242432 | 5 | 0.8055957 | 10 | 0.8027371 | 20 | 0.8141917 |
| 2-Fluorobiphenyl | 0.2 | 0.9678027 | 0.5 | 0.9267382 | 1 | 0.971158 | 5 | 0.9172978 | 10 | 0.8347461 | 20 | 0.8721172 |
| Indeno(1,2,3-cd)pyrene | 0.2 | 1.19648 | 0.5 | 1.0475 | 1 | 1.041161 | 5 | 1.035051 | 10 | 1.034813 | 20 | 1.078813 |
| 1-Methylnaphthalene | 0.2 | 1.063294 | 0.5 | 0.9409067 | 1 | 0.9548364 | 5 | 0.8620632 | 10 | 0.8000648 | 20 | 0.8432121 |
| 2-Methylnaphthalene | 0.2 | 1.091703 | 0.5 | 0.9503314 | 1 | 0.953009 | 5 | 0.8485033 | 10 | 0.790738 | 20 | 0.8347751 |
| Naphthalene | 0.2 | 1.685474 | 0.5 | 1.472423 | 1 | 1.51616 | 5 | 1.341546 | 10 | 1.240043 | 20 | 1.318205 |
| Phenanthrene | 0.2 | 1.134937 | 0.5 | 1.1581 | 1 | 1.184863 | 5 | 1.175284 | 10 | 1.202262 | 20 | 1.17303 |
| Pyrene | 0.2 | 1.092794 | 0.5 | 1.147446 | 1 | 1.174827 | 5 | 1.234693 | 10 | 1.289576 | 20 | 1.223257 |
| Terphenyl-d14 | 0.2 | 0.6118179 | 0.5 | 0.7063144 | 1 | 0.7228992 | 5 | 0.7705175 | 10 | 0.8117648 | 20 | 0.7422102 |
| 2,4,6-Tribromophenol | 0.4 | ~~6.326415E-03~~ | 1 | ~~8.579129E-02~~ | 2 | ~~0.1089983~~ | 10 | 0.1584169 | 20 | 0.1656128 | 40 | 0.175367 |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 40 | 0.7820316 | 50 | 0.7652934 | | | | | | | | |
| Acenaphthylene | 40 | 1.094458 | 50 | 1.018169 | | | | | | | | |
| Anthracene | 40 | 1.152126 | 50 | 1.196303 | | | | | | | | |
| Benzo(a)anthracene | 40 | 1.003107 | 50 | 0.9291589 | | | | | | | | |
| Benzo(a)pyrene | 40 | 1.080537 | 50 | 1.058466 | | | | | | | | |
| Benzo(b)fluoranthene | 40 | 1.335067 | 50 | 1.516975 | | | | | | | | |
| Benzo(g,h,i)perylene | 40 | 0.9253269 | 50 | 0.8257036 | | | | | | | | |
| Benzo(k)fluoranthene | 40 | 1.386509 | 50 | 1.229503 | | | | | | | | |
| Chrysene | 40 | 0.9474654 | 50 | 0.8935192 | | | | | | | | |
| Dibenz(a,h)anthracene | 40 | 0.8924079 | 50 | 0.7981977 | | | | | | | | |
| Fluoranthene | 40 | 1.255338 | 50 | 1.219358 | | | | | | | | |
| Fluorene | 40 | 0.7859858 | 50 | 0.8053954 | | | | | | | | |
| 2-Fluorobiphenyl | 40 | 0.8111573 | 50 | 0.8142831 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 40 | 1.109845 | 50 | 0.9998711 | | | | | | | | |
| 1-Methylnaphthalene | 40 | 0.7771338 | 50 | 0.7467535 | | | | | | | | |
| 2-Methylnaphthalene | 40 | 0.7827356 | 50 | 0.7506397 | | | | | | | | |
| Naphthalene | 40 | 1.179985 | 50 | 1.155622 | | | | | | | | |
| Phenanthrene | 40 | 1.176864 | 50 | 1.189216 | | | | | | | | |
| Pyrene | 40 | 1.276995 | 50 | 1.213951 | | | | | | | | |
| Terphenyl-d14 | 40 | 0.8018532 | 50 | 0.7661409 | | | | | | | | |
| 2,4,6-Tribromophenol | 80 | 0.1735388 | 100 | 0.164136 | | | | | | | | |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | | | | | | | | |
| Acenaphthene | 40 | 0.7820316 | 50 | 0.7652934 | | | | | | | | |
| Acenaphthylene | 40 | 1.094458 | 50 | 1.018169 | | | | | | | | |
| Anthracene | 40 | 1.152126 | 50 | 1.196303 | | | | | | | | |
| Benzo(a)anthracene | 40 | 1.003107 | 50 | 0.9291589 | | | | | | | | |
| Benzo(a)pyrene | 40 | 1.080537 | 50 | 1.058466 | | | | | | | | |
| Benzo(b)fluoranthene | 40 | 1.335067 | 50 | 1.516975 | | | | | | | | |
| Benzo(g,h,i)perylene | 40 | 0.9253269 | 50 | 0.8257036 | | | | | | | | |
| Benzo(k)fluoranthene | 40 | 1.386509 | 50 | 1.229503 | | | | | | | | |
| Chrysene | 40 | 0.9474654 | 50 | 0.8935192 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Dibenz(a,h)anthracene | 40 | 0.8924079 | 50 | 0.7981977 | | | | | | | | |
| Fluoranthene | 40 | 1.255338 | 50 | 1.219358 | | | | | | | | |
| Fluorene | 40 | 0.7859858 | 50 | 0.8053954 | | | | | | | | |
| 2-Fluorobiphenyl | 40 | 0.8111573 | 50 | 0.8142831 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 40 | 1.109845 | 50 | 0.9998711 | | | | | | | | |
| 1-Methylnaphthalene | 40 | 0.7771338 | 50 | 0.7467535 | | | | | | | | |
| 2-Methylnaphthalene | 40 | 0.7827356 | 50 | 0.7506397 | | | | | | | | |
| Naphthalene | 40 | 1.179985 | 50 | 1.155622 | | | | | | | | |
| Phenanthrene | 40 | 1.176864 | 50 | 1.189216 | | | | | | | | |
| Pyrene | 40 | 1.276995 | 50 | 1.213951 | | | | | | | | |
| Terphenyl-d14 | 40 | 0.8018532 | 50 | 0.7661409 | | | | | | | | |
| 2,4,6-Tribromophenol | 80 | 0.1735388 | 100 | 0.164136 | | | | | | | | |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 | | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | | |
| Calibration: | 1061004 | Instrument: | MS-BNA4 | | |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 | 2/28/11 23:01 | |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1C06115 | Injection Date: | 03/01/11 |
| Lab Sample ID: | 1C06115-ICV1 | Injection Time: | 12:19 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.234 | 0.8277096 | 0.8665216 | | 4.7 | 20 |
| Acenaphthylene | A | 5.000 | 5.787 | 1.235702 | 1.430186 | | 15.7 | 20 |
| Anthracene | A | 5.000 | 5.426 | 1.13295 | 1.229415 | | 8.5 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.970 | 0.8691476 | 0.9136814 | | -0.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.399 | 1.056815 | 1.141205 | | 8.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.866 | 1.338014 | 1.302123 | | -2.7 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.830 | 0.9482109 | 0.9159273 | | -3.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.796 | 1.2951 | 1.501354 | | 15.9 | 20 |
| Chrysene | A | 5.000 | 5.406 | 0.8791148 | 0.9505258 | | 8.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.789 | 0.8237431 | 0.7889492 | | -4.2 | 20 |
| Fluoranthene | A | 5.000 | 5.284 | 1.197097 | 1.265188 | | 5.7 | 20 |
| Fluorene | A | 5.000 | 5.335 | 0.7884623 | 0.8413243 | | 6.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.885 | 1.067942 | 1.043478 | | -2.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.030 | 0.8735331 | 0.8786867 | | 0.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.052 | 0.8753044 | 0.88448 | | 1.0 | 20 |
| Naphthalene | A | 5.000 | 5.217 | 1.363682 | 1.422778 | | 4.3 | 20 |
| Phenanthrene | A | 5.000 | 5.384 | 1.17432 | 1.264507 | | 7.7 | 20 |
| Pyrene | A | 5.000 | 5.486 | 1.206692 | 1.324032 | | 9.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.477 | 0.8894126 | 0.974327 | | 9.5 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.816 | 0.7416898 | 0.8626973 | | 16.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09509-TUN1 | SEQ-TUN1.D | 04/04/11 11:32 |
| Calibration Check | 1D09509-CCV1 | SEQ-CCV1.D | 04/04/11 14:11 |
| LCS | 1C31016-BS1 | C31016L1.D | 04/04/11 17:27 |
| Blank | 1C31016-BLK1 | C31016B1.D | 04/04/11 18:23 |
| EQUIPMENT BLANK 02 | 1103237-15 | 0323715.D | 04/04/11 18:51 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/04/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 11:32 |
| Sequence: | 1D09509 | Lab Sample ID: | 1D09509-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 33.7 | PASS |
| 68 | Less than 2% of 69 | 1.51 | PASS |
| 69 | Less than 200% of 198 | 35.6 | PASS |
| 70 | Less than 2% of 69 | 0.482 | PASS |
| 127 | 40 - 60% of 198 | 47.9 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.4 | PASS |
| 275 | 10 - 30% of 198 | 29.1 | PASS |
| 365 | 1 - 200% of 198 | 4.48 | PASS |
| 441 | 0.001 - 100% of 443 | 83.7 | PASS |
| 442 | 40 - 200% of 198 | 150 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D09509 | Injection Date: | 04/04/11 |
| Lab Sample ID: | 1D09509-CCV1 | Injection Time: | 14:11 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.878 | 0.8277096 | 0.8074588 | | -2.4 | 20 |
| Acenaphthylene | A | 5.000 | 4.960 | 1.235702 | 1.225901 | | -0.8 | 20 |
| Anthracene | A | 5.000 | 4.914 | 1.13295 | 1.113501 | | -1.7 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.574 | 0.8691476 | 0.8378458 | | -8.5 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.905 | 1.056815 | 1.036706 | | -1.9 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.551 | 1.338014 | 1.217995 | | -9.0 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.161 | 0.9482109 | 0.7890567 | | -16.8 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.487 | 1.2951 | 1.421336 | | 9.7 | 20 |
| Chrysene | A | 5.000 | 4.889 | 0.8791148 | 0.8596668 | | -2.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.424 | 0.8237431 | 0.7288403 | | -11.5 | 20 |
| Fluoranthene | A | 5.000 | 4.938 | 1.197097 | 1.182246 | | -1.2 | 20 |
| Fluorene | A | 5.000 | 5.001 | 0.7884623 | 0.7886655 | | 0.03 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.248 | 1.067942 | 0.9072291 | | -15.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.586 | 0.8735331 | 0.8012969 | | -8.3 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.575 | 0.8753044 | 0.8009544 | | -8.5 | 20 |
| Naphthalene | A | 5.000 | 4.386 | 1.363682 | 1.196311 | | -12.3 | 20 |
| Phenanthrene | A | 5.000 | 4.980 | 1.17432 | 1.169713 | | -0.4 | 20 |
| Pyrene | A | 5.000 | 5.166 | 1.206692 | 1.246698 | | 3.3 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.904 | 0.8894126 | 0.8723796 | | -1.9 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.267 | 0.7416898 | 0.7813099 | | 5.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09607-TUN1 | SEQ-TUN1.D | 04/05/11 11:10 |
| Calibration Check | 1D09607-CCV1 | SEQ-CCV1.D | 04/05/11 11:31 |
| LCS Dup | 1C31016-BSD1 | C3116L2R.D | 04/05/11 12:55 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/05/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 11:10 |
| Sequence: | 1D09607 | Lab Sample ID: | 1D09607-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 50 | PASS |
| 68 | Less than 2% of 69 | 1.5 | PASS |
| 69 | Less than 200% of 198 | 48.8 | PASS |
| 70 | Less than 2% of 69 | 0.489 | PASS |
| 127 | 40 - 60% of 198 | 53.7 | PASS |
| 197 | Less than 1% of 198 | 0.662 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.71 | PASS |
| 275 | 10 - 30% of 198 | 28.6 | PASS |
| 365 | 1 - 200% of 198 | 4.25 | PASS |
| 441 | 0.001 - 100% of 443 | 79.5 | PASS |
| 442 | 40 - 200% of 198 | 158 | PASS |
| 443 | 17 - 23% of 442 | 20.2 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D09607 | Injection Date: | 04/05/11 |
| Lab Sample ID: | 1D09607-CCV1 | Injection Time: | 11:31 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.338 | 0.8277096 | 0.8836884 | | 6.8 | 20 |
| Acenaphthylene | A | 5.000 | 5.421 | 1.235702 | 1.339664 | | 8.4 | 20 |
| Anthracene | A | 5.000 | 5.089 | 1.13295 | 1.15306 | | 1.8 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.367 | 0.8691476 | 0.798171 | | -12.7 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.273 | 1.056815 | 1.114439 | | 5.5 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.726 | 1.338014 | 1.264827 | | -5.5 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.006 | 0.9482109 | 0.7597075 | | -19.9 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.778 | 1.2951 | 1.496596 | | 15.6 | 20 |
| Chrysene | A | 5.000 | 4.490 | 0.8791148 | 0.7895147 | | -10.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.711 | 0.8237431 | 0.7761675 | | -5.8 | 20 |
| Fluoranthene | A | 5.000 | 4.886 | 1.197097 | 1.169874 | | -2.3 | 20 |
| Fluorene | A | 5.000 | 5.469 | 0.7884623 | 0.8624296 | | 9.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.497 | 1.067942 | 0.9604564 | | -10.1 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.043 | 0.8735331 | 0.8810955 | | 0.9 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.005 | 0.8753044 | 0.8761927 | | 0.1 | 20 |
| Naphthalene | A | 5.000 | 4.793 | 1.363682 | 1.307124 | | -4.1 | 20 |
| Phenanthrene | A | 5.000 | 5.178 | 1.17432 | 1.216239 | | 3.6 | 20 |
| Pyrene | A | 5.000 | 5.048 | 1.206692 | 1.218342 | | 1.0 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.292 | 0.8894126 | 0.9412943 | | 5.8 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.088 | 0.7416898 | 0.7548253 | | 1.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C31016 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIPMENT BLANK 02 | 1103237-15 | 04/01/11 11:25 | 1,060.00 | 1.00 |
| Blank | 1C31016-BLK1 | 04/01/11 11:25 | 1,000.00 | 1.00 |
| LCS | 1C31016-BS1 | 04/01/11 11:25 | 1,000.00 | 1.00 |
| LCS Dup | 1C31016-BSD1 | 04/01/11 11:25 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C31016-BLK1 | File ID: | C31016B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/04/11 18:23 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1C31016 Sequence: 1D09509 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 34.56 | 69.1 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 39.08 | 78.2 | 34 - 167 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C31016 | Laboratory ID: | 1C31016-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 1.000 | 0.9832 | 98.3 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.7971 | 79.7 | 43 - 140 |
| Anthracene | 1.000 | 0.9729 | 97.3 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 1.028 | 103 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.7949 | 79.5 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.8323 | 83.2 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.7324 | 73.2 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 1.169 | 117 | 49 - 165 |
| Chrysene | 1.000 | 0.9904 | 99.0 | 51 - 155 |
| Dibenz(a,h)anthracene | 1.000 | 0.6242 | 62.4 | 28 - 153 |
| Fluoranthene | 1.000 | 1.005 | 101 | 47 - 158 |
| Fluorene | 1.000 | 1.019 | 102 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.7087 | 70.9 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.8601 | 86.0 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.8521 | 85.2 | 36 - 121 |
| Naphthalene | 1.000 | 0.8167 | 81.7 | 39 - 125 |
| Phenanthrene | 1.000 | 1.037 | 104 | 46 - 144 |
| Pyrene | 1.000 | 1.003 | 100 | 39 - 158 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 1.000 | 0.8563 | 85.6 | 13.8 | 30 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.7513 | 75.1 | 5.92 | 30 | 43 - 140 |
| Anthracene | 1.000 | 0.8317 | 83.2 | 15.6 | 30 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 1.013 | 101 | 1.51 | 30 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.7458 | 74.6 | 6.38 | 30 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.8203 | 82.0 | 1.45 | 30 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.6758 | 67.6 | 8.03 | 30 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 0.9374 | 93.7 | 22.0 | 30 | 49 - 165 |
| Chrysene | 1.000 | 0.9356 | 93.6 | 5.70 | 30 | 51 - 155 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C31016 | Laboratory ID: | 1C31016-BSD1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 1.000 | 0.6106 | 61.1 | 2.19 | 30 | 28 - 153 |
| Fluoranthene | 1.000 | 0.9436 | 94.4 | 6.33 | 30 | 47 - 158 |
| Fluorene | 1.000 | 0.9545 | 95.4 | 6.52 | 30 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.6836 | 68.4 | 3.60 | 30 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.7580 | 75.8 | 12.6 | 30 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.7900 | 79.0 | 7.57 | 30 | 36 - 121 |
| Naphthalene | 1.000 | 0.7428 | 74.3 | 9.49 | 30 | 39 - 125 |
| Phenanthrene | 1.000 | 0.9480 | 94.8 | 8.95 | 30 | 46 - 144 |
| Pyrene | 1.000 | 0.9662 | 96.6 | 3.76 | 30 | 39 - 158 |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10202 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10202-TUN1 | SEQ-TUN1.D | 04/08/11 16:29 |
| Calibration Check | 1D10202-CCV1 | SEQ-CCV1.D | 04/08/11 16:48 |
| LCS | 1D05024-BS1 | D05024L1.D | 04/08/11 20:05 |
| Blank | 1D05024-BLK1 | D05024B1.D | 04/08/11 20:32 |
| 05-SS-027-0204 | 1103237-01 | 0323701.D | 04/08/11 21:00 |
| 05-SS-028-0204 | 1103237-02 | 0323702.D | 04/08/11 21:28 |
| 05-SS-036-0204 | 1103237-11 | 0323711.D | 04/08/11 21:55 |
| 05-SS-066-0406 | 1103237-12 | 0323712.D | 04/08/11 22:23 |
| 05-SS-069-0406 | 1103237-14 | 0323714.D | 04/08/11 22:51 |
| 05-SS-074-0406 | 1D05024-MS1 | 0325704M.D | 04/09/11 01:09 |
| 05-SS-074-0406 | 1D05024-MSD1 | 0325704S.D | 04/09/11 01:37 |
| 05-SS-030-1520 | 1103237-03 | 0323703.D | 04/09/11 03:00 |
| 05-SS-030-1520-D | 1103237-04 | 0323704.D | 04/09/11 03:27 |
| 05-SS-031-0204 | 1103237-05 | 0323705.D | 04/09/11 03:55 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/08/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 16:29 |
| Sequence: | 1D10202 | Lab Sample ID: | 1D10202-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 34.5 | PASS |
| 68 | Less than 2% of 69 | 1.66 | PASS |
| 69 | Less than 200% of 198 | 36.8 | PASS |
| 70 | Less than 2% of 69 | 0.458 | PASS |
| 127 | 40 - 60% of 198 | 49.5 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.48 | PASS |
| 275 | 10 - 30% of 198 | 28.8 | PASS |
| 365 | 1 - 200% of 198 | 4.26 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 150 | PASS |
| 443 | 17 - 23% of 442 | 20.1 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10202 | Injection Date: | 04/08/11 |
| Lab Sample ID: | 1D10202-CCV1 | Injection Time: | 16:48 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.756 | 0.8277096 | 0.7873346 | | -4.9 | 20 |
| Acenaphthylene | A | 5.000 | 4.860 | 1.235702 | 1.201161 | | -2.8 | 20 |
| Anthracene | A | 5.000 | 5.084 | 1.13295 | 1.151959 | | 1.7 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.248 | 0.8691476 | 0.7753822 | | -15.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.058 | 1.056815 | 1.069013 | | 1.2 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.430 | 1.338014 | 1.453012 | | 8.6 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.468 | 0.9482109 | 0.8472981 | | -10.6 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.080 | 1.2951 | 1.315789 | | 1.6 | 20 |
| Chrysene | A | 5.000 | 4.090 | 0.8791148 | 0.7190794 | | -18.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.810 | 0.8237431 | 0.792385 | | -3.8 | 20 |
| Fluoranthene | A | 5.000 | 4.639 | 1.197097 | 1.110741 | | -7.2 | 20 |
| Fluorene | A | 5.000 | 5.030 | 0.7884623 | 0.7931406 | | 0.6 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.535 | 1.067942 | 0.9686033 | | -9.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.522 | 0.8735331 | 0.7900686 | | -9.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.680 | 0.8753044 | 0.8193648 | | -6.4 | 20 |
| Naphthalene | A | 5.000 | 4.482 | 1.363682 | 1.222377 | | -10.4 | 20 |
| Phenanthrene | A | 5.000 | 4.927 | 1.17432 | 1.157122 | | -1.5 | 20 |
| Pyrene | A | 5.000 | 4.550 | 1.206692 | 1.098022 | | -9.0 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.646 | 0.8894126 | 0.8264846 | | -7.1 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.842 | 0.7416898 | 0.7182827 | | -3.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10409 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10409-TUN1 | SEQ-TUN1.D | 04/12/11 10:41 |
| Calibration Check | 1D10409-CCV1 | SEQ-CCV1.D | 04/12/11 11:02 |
| 05-SS-032-0204 | 1103237-07 | 0323707.D | 04/12/11 19:58 |
| 05-SS-033-0204 | 1103237-08 | 0323708.D | 04/12/11 20:26 |
| 05-SS-034-0204 | 1103237-09 | 0323709.D | 04/12/11 20:53 |
| 05-SS-035-0204 | 1103237-10 | 0323710.D | 04/12/11 21:21 |
| 05-SS-068-0406 | 1103237-13 | 0323713.D | 04/12/11 21:49 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/12/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 10:41 |
| Sequence: | 1D10409 | Lab Sample ID: | 1D10409-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 50.8 | PASS |
| 68 | Less than 2% of 69 | 1.61 | PASS |
| 69 | Less than 200% of 198 | 49.4 | PASS |
| 70 | Less than 2% of 69 | 0.478 | PASS |
| 127 | 40 - 60% of 198 | 54.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.67 | PASS |
| 275 | 10 - 30% of 198 | 28 | PASS |
| 365 | 1 - 200% of 198 | 4.28 | PASS |
| 441 | 0.001 - 100% of 443 | 83.4 | PASS |
| 442 | 40 - 200% of 198 | 158 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10409 | Injection Date: | 04/12/11 |
| Lab Sample ID: | 1D10409-CCV1 | Injection Time: | 11:02 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.867 | 0.8277096 | 0.8056366 | | -2.7 | 20 |
| Acenaphthylene | A | 5.000 | 4.938 | 1.235702 | 1.220375 | | -1.2 | 20 |
| Anthracene | A | 5.000 | 5.032 | 1.13295 | 1.140116 | | 0.6 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.350 | 0.8691476 | 0.7949709 | | -13.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.088 | 1.056815 | 1.075335 | | 1.8 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.013 | 1.338014 | 1.341406 | | 0.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.724 | 0.9482109 | 0.8958028 | | -5.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.236 | 1.2951 | 1.356348 | | 4.7 | 20 |
| Chrysene | A | 5.000 | 4.490 | 0.8791148 | 0.7894523 | | -10.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.047 | 0.8237431 | 0.8314567 | | 0.9 | 20 |
| Fluoranthene | A | 5.000 | 4.644 | 1.197097 | 1.111838 | | -7.1 | 20 |
| Fluorene | A | 5.000 | 5.165 | 0.7884623 | 0.8144288 | | 3.3 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.935 | 1.067942 | 1.054136 | | -1.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.610 | 0.8735331 | 0.8053416 | | -7.8 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.721 | 0.8753044 | 0.8264418 | | -5.6 | 20 |
| Naphthalene | A | 5.000 | 4.474 | 1.363682 | 1.220203 | | -10.5 | 20 |
| Phenanthrene | A | 5.000 | 4.756 | 1.17432 | 1.117082 | | -4.9 | 20 |
| Pyrene | A | 5.000 | 4.694 | 1.206692 | 1.132798 | | -6.1 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.650 | 0.8894126 | 0.827086 | | -7.0 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.820 | 0.7416898 | 0.7150458 | | -3.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D05024 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-027-0204 | 1103237-01 | 04/07/11 15:36 | 15.10 | 1.00 |
| 05-SS-028-0204 | 1103237-02 | 04/07/11 15:36 | 15.10 | 1.00 |
| 05-SS-030-1520 | 1103237-03 | 04/07/11 15:36 | 15.30 | 1.00 |
| 05-SS-030-1520-D | 1103237-04 | 04/07/11 15:36 | 15.20 | 1.00 |
| 05-SS-031-0204 | 1103237-05 | 04/07/11 15:36 | 15.20 | 1.00 |
| 05-SS-032-0204 | 1103237-07 | 04/07/11 15:36 | 15.40 | 1.00 |
| 05-SS-033-0204 | 1103237-08 | 04/07/11 15:36 | 15.20 | 1.00 |
| 05-SS-034-0204 | 1103237-09 | 04/07/11 15:36 | 15.80 | 1.00 |
| 05-SS-035-0204 | 1103237-10 | 04/07/11 15:36 | 15.80 | 1.00 |
| 05-SS-036-0204 | 1103237-11 | 04/07/11 15:36 | 15.20 | 1.00 |
| 05-SS-066-0406 | 1103237-12 | 04/07/11 15:36 | 15.00 | 1.00 |
| 05-SS-068-0406 | 1103237-13 | 04/07/11 15:36 | 15.40 | 1.00 |
| 05-SS-069-0406 | 1103237-14 | 04/07/11 15:36 | 15.00 | 1.00 |
| Blank | 1D05024-BLK1 | 04/07/11 15:36 | 15.00 | 1.00 |
| LCS | 1D05024-BS1 | 04/07/11 15:36 | 15.00 | 1.00 |
| 05-SS-074-0406 | 1D05024-MS1 | 04/07/11 15:36 | 15.10 | 1.00 |
| 05-SS-074-0406 | 1D05024-MSD1 | 04/07/11 15:36 | 15.50 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D05024-BLK1 | File ID: | D05024B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/08/11 20:32 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.0133 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.0133 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.0133 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.0133 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.0133 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.357 | 101 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 3.647 | 109 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D05024 | Laboratory ID: | 1D05024-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.06807 | 102 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.05799 | 87.0 | 23 - 126 |
| Anthracene | 0.06667 | 0.07074 | 106 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.07302 | 110 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.05474 | 82.1 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.06603 | 99.0 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.05548 | 83.2 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.06836 | 103 | 42 - 129 |
| Chrysene | 0.06667 | 0.06072 | 91.1 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.06667 | 0.05628 | 84.4 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.06355 | 95.3 | 30 - 142 |
| Fluorene | 0.06667 | 0.07104 | 107 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.05140 | 77.1 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.06457 | 96.8 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.06811 | 102 | 30 - 111 |
| Naphthalene | 0.06667 | 0.06622 | 99.3 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.07110 | 107 | 32 - 127 |
| Pyrene | 0.06667 | 0.06605 | 99.1 | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

05-SS-074-0406

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D05024

% Solids: 88.39

Source Sample Name: **1103257-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 0.07493 | ND | 0.07341 | 98.0 | | 28 - 110 |
| Acenaphthylene | 0.07493 | ND | 0.06370 | 85.0 | | 23 - 126 |
| Anthracene | 0.07493 | ND | 0.07369 | 98.4 | | 28 - 136 |
| Benzo(a)anthracene | 0.07493 | ND | 0.08648 | 115 | | 31 - 146 |
| Benzo(a)pyrene | 0.07493 | ND | 0.06618 | 88.3 | | 28 - 128 |
| Benzo(b)fluoranthene | 0.07493 | ND | 0.06806 | 90.8 | | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07493 | ND | 0.06368 | 85.0 | | 21 - 149 |
| Benzo(k)fluoranthene | 0.07493 | ND | 0.07101 | 94.8 | | 42 - 129 |
| Chrysene | 0.07493 | ND | 0.06895 | 92.0 | | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07493 | ND | 0.06191 | 82.6 | | 30 - 138 |
| Fluoranthene | 0.07493 | ND | 0.07604 | 101 | | 30 - 142 |
| Fluorene | 0.07493 | ND | 0.07862 | 105 | | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07493 | ND | 0.05964 | 79.6 | | 17 - 164 |
| 1-Methylnaphthalene | 0.07493 | ND | 0.06713 | 89.6 | | 30 - 111 |
| 2-Methylnaphthalene | 0.07493 | ND | 0.07239 | 96.6 | | 30 - 111 |
| Naphthalene | 0.07493 | ND | 0.06863 | 91.6 | | 29 - 106 |
| Phenanthrene | 0.07493 | ND | 0.07942 | 106 | | 32 - 127 |
| Pyrene | 0.07493 | ND | 0.07739 | 103 | | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

**05-SS-074-0406**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D05024

% Solids: 88.39

Source Sample Name: **1103257-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.07299 | 0.07651 | 105 | 4.13 | | 30 | 28 - 110 |
| Acenaphthylene | 0.07299 | 0.06676 | 91.5 | 4.69 | | 30 | 23 - 126 |
| Anthracene | 0.07299 | 0.07645 | 105 | 3.67 | | 30 | 28 - 136 |
| Benzo(a)anthracene | 0.07299 | 0.07994 | 110 | 7.87 | | 30 | 31 - 146 |
| Benzo(a)pyrene | 0.07299 | 0.06939 | 95.1 | 4.73 | | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 0.07299 | 0.07207 | 98.7 | 5.73 | | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07299 | 0.06422 | 88.0 | 0.836 | | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 0.07299 | 0.07694 | 105 | 8.01 | | 30 | 42 - 129 |
| Chrysene | 0.07299 | 0.06567 | 90.0 | 4.87 | | 30 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07299 | 0.06205 | 85.0 | 0.219 | | 30 | 30 - 138 |
| Fluoranthene | 0.07299 | 0.07532 | 103 | 0.947 | | 30 | 30 - 142 |
| Fluorene | 0.07299 | 0.08222 | 113 | 4.48 | | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07299 | 0.06027 | 82.6 | 1.05 | | 30 | 17 - 164 |
| 1-Methylnaphthalene | 0.07299 | 0.07473 | 102 | 10.7 | | 30 | 30 - 111 |
| 2-Methylnaphthalene | 0.07299 | 0.07602 | 104 | 4.89 | | 30 | 30 - 111 |
| Naphthalene | 0.07299 | 0.07574 | 104 | 9.85 | | 30 | 29 - 106 |
| Phenanthrene | 0.07299 | 0.08272 | 113 | 4.07 | | 30 | 32 - 127 |
| Pyrene | 0.07299 | 0.07808 | 107 | 0.882 | | 30 | 28 - 130 |

# Data for FLPRO Forms

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-027-0204 | 03/28/11 07:05 | 03/29/11 08:45 | 04/06/11 11:00 | 9.20 | 14.00 | 04/08/11 00:52 | 1.58 | 40.00 | |
| 05-SS-028-0204 | 03/28/11 07:35 | 03/29/11 08:45 | 04/06/11 11:00 | 9.18 | 14.00 | 04/08/11 01:34 | 1.61 | 40.00 | |
| 05-SS-030-1520 | 03/28/11 08:32 | 03/29/11 08:45 | 04/06/11 11:00 | 9.14 | 14.00 | 04/08/11 02:59 | 1.67 | 40.00 | |
| 05-SS-030-1520-D | 03/28/11 08:32 | 03/29/11 08:45 | 04/06/11 11:00 | 9.14 | 14.00 | 04/08/11 03:41 | 1.70 | 40.00 | |
| 05-SS-031-0204 | 03/28/11 08:50 | 03/29/11 08:45 | 04/06/11 11:00 | 9.13 | 14.00 | 04/08/11 04:23 | 1.72 | 40.00 | |
| 05-SS-032-0204 | 03/28/11 09:15 | 03/29/11 08:45 | 04/06/11 11:00 | 9.11 | 14.00 | 04/08/11 05:06 | 1.75 | 40.00 | |
| 05-SS-033-0204 | 03/28/11 09:45 | 03/29/11 08:45 | 04/06/11 11:00 | 9.09 | 14.00 | 04/08/11 05:48 | 1.78 | 40.00 | |
| 05-SS-034-0204 | 03/28/11 10:10 | 03/29/11 08:45 | 04/06/11 11:00 | 9.08 | 14.00 | 04/08/11 06:30 | 1.81 | 40.00 | |
| 05-SS-035-0204 | 03/28/11 10:25 | 03/29/11 08:45 | 04/06/11 11:00 | 9.07 | 14.00 | 04/08/11 07:12 | 1.84 | 40.00 | |
| 05-SS-036-0204 | 03/28/11 10:55 | 03/29/11 08:45 | 04/06/11 11:00 | 9.05 | 14.00 | 04/08/11 07:55 | 1.87 | 40.00 | |
| 05-SS-066-0406 | 03/28/11 14:20 | 03/29/11 08:45 | 04/06/11 11:00 | 8.90 | 14.00 | 04/08/11 08:37 | 1.90 | 40.00 | |
| 05-SS-068-0406 | 03/28/11 15:45 | 03/29/11 08:45 | 04/06/11 11:00 | 8.84 | 14.00 | 04/08/11 09:19 | 1.93 | 40.00 | |
| 05-SS-069-0406 | 03/28/11 16:10 | 03/29/11 08:45 | 04/08/11 20:01 | 11.20 | 14.00 | 04/10/11 14:39 | 1.78 | 40.00 | |
| EQUIPMENT BLANK 02 | 03/28/11 16:30 | 03/29/11 08:45 | 04/01/11 11:40 | 3.84 | 7.00 | 04/05/11 05:03 | 3.72 | 40.00 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09506 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09506-CCV1 ) mg/L** | | | | Lab File ID: 029F2901.D | | Analyzed: 04/05/11 02:13 | | |
| 2-Fluorobiphenyl | 25.00 | 111 | 75 - 125 | 10.873 | 10.873 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 89.3 | 75 - 125 | 16.433 | 16.433 | 0.0000 | +/-0.050 | |
| **Blank (1C31015-BLK1 ) mg/L** | | | | Lab File ID: 030F3001.D | | Analyzed: 04/05/11 02:56 | | |
| 2-Fluorobiphenyl | 0.05000 | 80.6 | 50 - 150 | 10.886 | 10.873 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 67.6 | 82 - 142 | 16.45 | 16.433 | 0.0170 | +/-0.050 | * |
| **LCS (1C31015-BS1 ) mg/L** | | | | Lab File ID: 031F3101.D | | Analyzed: 04/05/11 03:38 | | |
| 2-Fluorobiphenyl | 0.05000 | 90.7 | 50 - 150 | 10.85 | 10.873 | -0.0230 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 97.8 | 82 - 142 | 16.43 | 16.433 | -0.0030 | +/-0.050 | |
| **LCS Dup (1C31015-BSD1 ) mg/L** | | | | Lab File ID: 032F3201.D | | Analyzed: 04/05/11 04:20 | | |
| 2-Fluorobiphenyl | 0.05000 | 82.8 | 50 - 150 | 10.86 | 10.873 | -0.0130 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 90.2 | 82 - 142 | 16.43 | 16.433 | -0.0030 | +/-0.050 | |
| **EQUIPMENT BLANK 02 (1103237-15 ) mg/L** | | | | Lab File ID: 033F3301.D | | Analyzed: 04/05/11 05:03 | | |
| 2-Fluorobiphenyl | 0.04808 | 75.1 | 50 - 150 | 10.893 | 10.873 | 0.0200 | +/-0.050 | |
| o-Terphenyl | 0.04808 | 61.6 | 82 - 142 | 16.45 | 16.433 | 0.0170 | +/-0.050 | * |
| **Calibration Check (1D09506-CCV2 ) mg/L** | | | | Lab File ID: 035F3501.D | | Analyzed: 04/05/11 06:27 | | |
| 2-Fluorobiphenyl | 25.00 | 107 | 75 - 125 | 10.873 | 10.873 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 87.7 | 75 - 125 | 16.43 | 16.433 | -0.0030 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09806 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09806-CCV1 ) mg/L** | | | | Lab File ID: 013F1301.D | | Analyzed: 04/07/11 15:34 | | |
| 2-Fluorobiphenyl | 25.00 | 107 | 75 - 125 | 10.853 | 10.853 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 92.0 | 75 - 125 | 16.416 | 16.416 | 0.0000 | +/-0.050 | |
| **Blank (1D04021-BLK1 ) mg/Kg wet** | | | | Lab File ID: 014F1401.D | | Analyzed: 04/07/11 16:24 | | |
| 2-Fluorobiphenyl | 3.333 | 82.9 | 50 - 150 | 10.886 | 10.853 | 0.0330 | +/-0.050 | |
| o-Terphenyl | 3.333 | 72.5 | 35 - 140 | 16.44 | 16.416 | 0.0240 | +/-0.050 | |
| **LCS (1D04021-BS1 ) mg/Kg wet** | | | | Lab File ID: 015F1501.D | | Analyzed: 04/07/11 17:06 | | |
| 2-Fluorobiphenyl | 3.333 | 102 | 50 - 150 | 10.863 | 10.853 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.333 | 86.6 | 35 - 140 | 16.416 | 16.416 | 0.0000 | +/-0.050 | |
| **05-SS-027-0204 (1103237-01 ) mg/Kg dry** | | | | Lab File ID: 026F2601.D | | Analyzed: 04/08/11 00:52 | | |
| 2-Fluorobiphenyl | 3.702 | 77.0 | 50 - 150 | 10.886 | 10.853 | 0.0330 | +/-0.050 | |
| o-Terphenyl | 3.702 | 78.7 | 35 - 140 | 16.43 | 16.416 | 0.0140 | +/-0.050 | |
| **05-SS-028-0204 (1103237-02 ) mg/Kg dry** | | | | Lab File ID: 027F2701.D | | Analyzed: 04/08/11 01:34 | | |
| 2-Fluorobiphenyl | 3.584 | 85.3 | 50 - 150 | 10.883 | 10.853 | 0.0300 | +/-0.050 | |
| o-Terphenyl | 3.584 | 79.6 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |
| **Calibration Check (1D09806-CCV2 ) mg/L** | | | | Lab File ID: 028F2801.D | | Analyzed: 04/08/11 02:17 | | |
| 2-Fluorobiphenyl | 25.00 | 105 | 75 - 125 | 10.86 | 10.853 | 0.0070 | +/-0.050 | |
| o-Terphenyl | 25.00 | 90.5 | 75 - 125 | 16.42 | 16.416 | 0.0040 | +/-0.050 | |
| **05-SS-030-1520 (1103237-03 ) mg/Kg dry** | | | | Lab File ID: 029F2901.D | | Analyzed: 04/08/11 02:59 | | |
| 2-Fluorobiphenyl | 3.920 | 79.8 | 50 - 150 | 10.873 | 10.853 | 0.0200 | +/-0.050 | |
| o-Terphenyl | 3.920 | 68.3 | 35 - 140 | 16.426 | 16.416 | 0.0100 | +/-0.050 | |
| **05-SS-030-1520-D (1103237-04 ) mg/Kg dry** | | | | Lab File ID: 030F3001.D | | Analyzed: 04/08/11 03:41 | | |
| 2-Fluorobiphenyl | 3.822 | 83.4 | 50 - 150 | 10.863 | 10.853 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.822 | 71.9 | 35 - 140 | 16.426 | 16.416 | 0.0100 | +/-0.050 | |
| **05-SS-031-0204 (1103237-05 ) mg/Kg dry** | | | | Lab File ID: 031F3101.D | | Analyzed: 04/08/11 04:23 | | |
| 2-Fluorobiphenyl | 3.736 | 77.9 | 50 - 150 | 10.883 | 10.853 | 0.0300 | +/-0.050 | |
| o-Terphenyl | 3.736 | 77.1 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |
| **05-SS-032-0204 (1103237-07 ) mg/Kg dry** | | | | Lab File ID: 032F3201.D | | Analyzed: 04/08/11 05:06 | | |
| 2-Fluorobiphenyl | 3.697 | 91.2 | 50 - 150 | 10.876 | 10.853 | 0.0230 | +/-0.050 | |
| o-Terphenyl | 3.697 | 82.3 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |
| **05-SS-033-0204 (1103237-08 ) mg/Kg dry** | | | | Lab File ID: 033F3301.D | | Analyzed: 04/08/11 05:48 | | |
| 2-Fluorobiphenyl | 3.599 | 75.6 | 50 - 150 | 10.876 | 10.853 | 0.0230 | +/-0.050 | |
| o-Terphenyl | 3.599 | 68.1 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09806 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-034-0204 (1103237-09 ) mg/Kg dry** | | | | Lab File ID: 034F3401.D | | Analyzed: 04/08/11 06:30 | | |
| 2-Fluorobiphenyl | 3.883 | 98.4 | 50 - 150 | 10.843 | 10.853 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 3.883 | 89.9 | 35 - 140 | 16.423 | 16.416 | 0.0070 | +/-0.050 | |
| **05-SS-035-0204 (1103237-10 ) mg/Kg dry** | | | | Lab File ID: 035F3501.D | | Analyzed: 04/08/11 07:12 | | |
| 2-Fluorobiphenyl | 3.962 | 75.4 | 50 - 150 | 10.89 | 10.853 | 0.0370 | +/-0.050 | |
| o-Terphenyl | 3.962 | 71.5 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |
| **05-SS-036-0204 (1103237-11 ) mg/Kg dry** | | | | Lab File ID: 036F3601.D | | Analyzed: 04/08/11 07:55 | | |
| 2-Fluorobiphenyl | 3.957 | 80.6 | 50 - 150 | 10.883 | 10.853 | 0.0300 | +/-0.050 | |
| o-Terphenyl | 3.957 | 75.7 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |
| **05-SS-066-0406 (1103237-12 ) mg/Kg dry** | | | | Lab File ID: 037F3701.D | | Analyzed: 04/08/11 08:37 | | |
| 2-Fluorobiphenyl | 3.583 | 67.8 | 50 - 150 | 10.903 | 10.853 | 0.0500 | +/-0.050 | |
| o-Terphenyl | 3.583 | 67.9 | 35 - 140 | 16.433 | 16.416 | 0.0170 | +/-0.050 | |
| **05-SS-068-0406 (1103237-13 ) mg/Kg dry** | | | | Lab File ID: 038F3801.D | | Analyzed: 04/08/11 09:19 | | |
| 2-Fluorobiphenyl | 3.908 | 99.2 | 50 - 150 | 10.85 | 10.853 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 3.908 | 81.2 | 35 - 140 | 16.42 | 16.416 | 0.0040 | +/-0.050 | |
| **Calibration Check (1D09806-CCV3 ) mg/L** | | | | Lab File ID: 039F3901.D | | Analyzed: 04/08/11 10:02 | | |
| 2-Fluorobiphenyl | 25.00 | 117 | 75 - 125 | 10.823 | 10.853 | -0.0300 | +/-0.050 | |
| o-Terphenyl | 25.00 | 98.4 | 75 - 125 | 16.416 | 16.416 | 0.0000 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10110 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10110-CCV1 ) mg/L** | | | | Lab File ID: 002F0201.D | | Analyzed: 04/10/11 12:31 | | |
| 2-Fluorobiphenyl | 25.00 | 105 | 75 - 125 | 10.853 | 10.853 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 82.2 | 75 - 125 | 16.423 | 16.423 | 0.0000 | +/-0.050 | |
| **Blank (1D05022-BLK1 ) mg/Kg wet** | | | | Lab File ID: 003F0301.D | | Analyzed: 04/10/11 13:14 | | |
| 2-Fluorobiphenyl | 3.333 | 95.3 | 50 - 150 | 11.063 | 10.853 | 0.2100 | +/-0.050 | * |
| o-Terphenyl | 3.333 | 66.1 | 35 - 140 | 16.523 | 16.423 | 0.1000 | +/-0.050 | * |
| **LCS (1D05022-BS1 ) mg/Kg wet** | | | | Lab File ID: 004F0401.D | | Analyzed: 04/10/11 13:56 | | |
| 2-Fluorobiphenyl | 3.333 | 89.0 | 50 - 150 | 10.863 | 10.853 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.333 | 69.1 | 35 - 140 | 16.423 | 16.423 | 0.0000 | +/-0.050 | |
| **05-SS-069-0406 (1103237-14 ) mg/Kg dry** | | | | Lab File ID: 005F0501.D | | Analyzed: 04/10/11 14:39 | | |
| 2-Fluorobiphenyl | 3.500 | 74.1 | 50 - 150 | 11.103 | 10.853 | 0.2500 | +/-0.050 | * |
| o-Terphenyl | 3.500 | 67.8 | 35 - 140 | 16.5 | 16.423 | 0.0770 | +/-0.050 | * |
| **Calibration Check (1D10110-CCV2 ) mg/L** | | | | Lab File ID: 017F1701.D | | Analyzed: 04/10/11 23:09 | | |
| 2-Fluorobiphenyl | 25.00 | 101 | 75 - 125 | 10.843 | 10.853 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 25.00 | 83.8 | 75 - 125 | 16.416 | 16.423 | -0.0070 | +/-0.050 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| Cal Standard | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| Cal Standard | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| Cal Standard | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| Cal Standard | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| Cal Standard | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |
| Initial Cal Check | 1B05902-ICV1 | 002F0201.D | 02/27/11 14:40 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| 11B0727 | FLPRO CAL5 850ppm | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| 11B0726 | FLPRO CAL4 2550ppm | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| 11B0725 | FLPRO CAL3 4250ppm | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| 11B0724 | FLPRO CAL2 5950ppm | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| 11B0723 | FLPRO CAL1 8500ppm | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |

# INITIAL CALIBRATION DATA

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1059001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 2/25/11 12:08 2/25/11 15:39 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF |
| Petroleum Range Organics | 85 | 1001.176 | 850 | 1377.509 | 2550 | 1446.599 | 4250 | 1488.03 | 5950 | 1412.965 | 8500 | 1418.286 |
| 2-Fluorobiphenyl | 5 | 1558.6 | 10 | 1409.6 | 15 | 1829.333 | 25 | 2032.88 | 35 | 2127.686 | 50 | 2181.72 |
| o-Terphenyl | 5 | 2387.8 | 10 | 2409.2 | 15 | 2548.533 | 25 | 2526 | 35 | 2565.572 | 50 | 2515.5 |
| Petroleum Range Organics | 85 | 1001.176 | 850 | 1377.509 | 2550 | 1446.599 | 4250 | 1488.03 | 5950 | 1412.965 | 8500 | 1418.286 |
| 2-Fluorobiphenyl | 5 | 1558.6 | 10 | 1409.6 | 15 | 1829.333 | 25 | 2032.88 | 35 | 2127.686 | 50 | 2181.72 |
| o-Terphenyl | 5 | 2387.8 | 10 | 2409.2 | 15 | 2548.533 | 25 | 2526 | 35 | 2565.572 | 50 | 2515.5 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1059001 | Instrument: | GL-GCFID2 | |
| Matrix: | Water | Calibration Dates: | 2/25/11 12:08 | 2/25/11 15:39 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1B05902 | Injection Date: | 02/27/11 |
| Lab Sample ID: | 1B05902-ICV1 | Injection Time: | 14:40 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4130 | 1357.428 | 1401.388 | | 3.2 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09506 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D09506-CCV1 | 029F2901.D | 04/05/11 02:13 |
| Blank | 1C31015-BLK1 | 030F3001.D | 04/05/11 02:56 |
| LCS | 1C31015-BS1 | 031F3101.D | 04/05/11 03:38 |
| LCS Dup | 1C31015-BSD1 | 032F3201.D | 04/05/11 04:20 |
| EQUIPMENT BLANK 02 | 1103237-15 | 033F3301.D | 04/05/11 05:03 |
| Calibration Check | 1D09506-CCV2 | 035F3501.D | 04/05/11 06:27 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C31015 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIPMENT BLANK 02 | 1103237-15 | 04/01/11 11:40 | 1,040.00 | 2.00 |
| Blank | 1C31015-BLK1 | 04/01/11 11:40 | 1,000.00 | 2.00 |
| LCS | 1C31015-BS1 | 04/01/11 11:40 | 1,000.00 | 2.00 |
| LCS Dup | 1C31015-BSD1 | 04/01/11 11:40 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C31015-BLK1 | File ID: | 030F3001.D |
| Sampled: | | Prepared: | | Analyzed: | 04/05/11 02:56 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1C31015 Sequence: 1D09506 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.04028 | 80.6 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.03380 | 67.6 | 82 - 142 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C31015 | Laboratory ID: | 1C31015-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 2 mL |

| ANALYTE | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 3.324 | 104 | 55 - 118 |

| ANALYTE | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 3.038 | 94.9 | 8.98 | 30 | 55 - 118 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 029F2901.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09506 | Injection Date: | 04/05/11 |
| Lab Sample ID: | 1D09506-CCV1 | Injection Time: | 02:13 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3885 | 1357.428 | 1240.873 | | -8.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 27.69 | 1856.637 | 2056.28 | | 10.8 | 25 |
| o-Terphenyl | A | 25.00 | 22.33 | 2492.101 | 2225.68 | | -10.7 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 035F3501.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09506 | Injection Date: | 04/05/11 |
| Lab Sample ID: | 1D09506-CCV2 | Injection Time: | 06:27 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3815 | 1357.428 | 1218.492 | | -10.2 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.86 | 1856.637 | 1994.6 | | 7.4 | 25 |
| o-Terphenyl | A | 25.00 | 21.93 | 2492.101 | 2186.12 | | -12.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09806 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D09806-CCV1 | 013F1301.D | 04/07/11 15:34 |
| Blank | 1D04021-BLK1 | 014F1401.D | 04/07/11 16:24 |
| LCS | 1D04021-BS1 | 015F1501.D | 04/07/11 17:06 |
| 05-SS-027-0204 | 1103237-01 | 026F2601.D | 04/08/11 00:52 |
| 05-SS-028-0204 | 1103237-02 | 027F2701.D | 04/08/11 01:34 |
| Calibration Check | 1D09806-CCV2 | 028F2801.D | 04/08/11 02:17 |
| 05-SS-030-1520 | 1103237-03 | 029F2901.D | 04/08/11 02:59 |
| 05-SS-030-1520-D | 1103237-04 | 030F3001.D | 04/08/11 03:41 |
| 05-SS-031-0204 | 1103237-05 | 031F3101.D | 04/08/11 04:23 |
| 05-SS-032-0204 | 1103237-07 | 032F3201.D | 04/08/11 05:06 |
| 05-SS-033-0204 | 1103237-08 | 033F3301.D | 04/08/11 05:48 |
| 05-SS-034-0204 | 1103237-09 | 034F3401.D | 04/08/11 06:30 |
| 05-SS-035-0204 | 1103237-10 | 035F3501.D | 04/08/11 07:12 |
| 05-SS-036-0204 | 1103237-11 | 036F3601.D | 04/08/11 07:55 |
| 05-SS-066-0406 | 1103237-12 | 037F3701.D | 04/08/11 08:37 |
| 05-SS-068-0406 | 1103237-13 | 038F3801.D | 04/08/11 09:19 |
| Calibration Check | 1D09806-CCV3 | 039F3901.D | 04/08/11 10:02 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D04021 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-027-0204 | 1103237-01 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-028-0204 | 1103237-02 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-030-1520 | 1103237-03 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-030-1520-D | 1103237-04 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-031-0204 | 1103237-05 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-032-0204 | 1103237-07 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-033-0204 | 1103237-08 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-034-0204 | 1103237-09 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-035-0204 | 1103237-10 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-036-0204 | 1103237-11 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-066-0406 | 1103237-12 | 04/06/11 11:00 | 15.00 | 2.00 |
| 05-SS-068-0406 | 1103237-13 | 04/06/11 11:00 | 15.00 | 2.00 |
| Blank | 1D04021-BLK1 | 04/06/11 11:00 | 15.00 | 2.00 |
| LCS | 1D04021-BS1 | 04/06/11 11:00 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D04021-BLK1 | File ID: | 014F1401.D |
| Sampled: | | Prepared: | | Analyzed: | 04/07/11 16:24 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D04021 Sequence: 1D09806 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg w | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.764 | 82.9 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.417 | 72.5 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D04021 | Laboratory ID: | 1D04021-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 203.0 | 95.2 | 50 - 140 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 013F1301.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09806 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09806-CCV1 | Injection Time: | 15:34 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4030 | 1357.428 | 1287.28 | | -5.2 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.72 | 1856.637 | 1984.32 | | 6.9 | 25 |
| o-Terphenyl | A | 25.00 | 22.99 | 2492.101 | 2292.04 | | -8.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 028F2801.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09806 | Injection Date: | 04/08/11 |
| Lab Sample ID: | 1D09806-CCV2 | Injection Time: | 02:17 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3839 | 1357.428 | 1226.254 | | -9.7 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.34 | 1856.637 | 1955.92 | | 5.3 | 25 |
| o-Terphenyl | A | 25.00 | 22.62 | 2492.101 | 2255.36 | | -9.5 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 039F3901.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09806 | Injection Date: | 04/08/11 |
| Lab Sample ID: | 1D09806-CCV3 | Injection Time: | 10:02 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4219 | 1357.428 | 1347.648 | | -0.7 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 29.21 | 1856.637 | 2169.56 | | 16.9 | 25 |
| o-Terphenyl | A | 25.00 | 24.60 | 2492.101 | 2451.84 | | -1.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10110 | Instrument: | GL-GCF1D2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10110-CCV1 | 002F0201.D | 04/10/11 12:31 |
| Blank | 1D05022-BLK1 | 003F0301.D | 04/10/11 13:14 |
| LCS | 1D05022-BS1 | 004F0401.D | 04/10/11 13:56 |
| 05-SS-069-0406 | 1103237-14 | 005F0501.D | 04/10/11 14:39 |
| Calibration Check | 1D10110-CCV2 | 017F1701.D | 04/10/11 23:09 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_003 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D05022-BLK1 | File ID: | 003F0301.D |
| Sampled: | | Prepared: | | Analyzed: | 04/10/11 13:14 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.177 | 95.3 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.205 | 66.1 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D05022 | Laboratory ID: | 1D05022-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 172.3 | 80.8 | 50 - 140 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D05022 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-069-0406 | 1103237-14 | 04/08/11 20:01 | 15.30 | 2.00 |
| Blank | 1D05022-BLK1 | 04/08/11 20:01 | 15.00 | 2.00 |
| LCS | 1D05022-BS1 | 04/08/11 20:01 | 15.00 | 2.00 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D10110 | Injection Date: | 04/10/11 |
| Lab Sample ID: | 1D10110-CCV1 | Injection Time: | 12:31 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3884 | 1357.428 | 1240.676 | | -8.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.32 | 1856.637 | 1955.08 | | 5.3 | 25 |
| o-Terphenyl | A | 25.00 | 20.55 | 2492.101 | 2048.4 | | -17.8 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 017F1701.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D10110 | Injection Date: | 04/10/11 |
| Lab Sample ID: | 1D10110-CCV2 | Injection Time: | 23:09 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4041 | 1357.428 | 1290.63 | | -4.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 25.19 | 1856.637 | 1870.76 | | 0.8 | 25 |
| o-Terphenyl | A | 25.00 | 20.94 | 2492.101 | 2087.12 | | -16.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_003

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid **Instrument:** GL-GCFID2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |
| | 0.170 | 0.680 | mg/L | FLPRO |
| | 0.170 | 0.510 | mg/Kg | FLPRO |

# Data for SW6010C Forms

# ANALYSIS SEQUENCE SUMMARY
## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09708 | Instrument: | ME-ICP |
| Calibration: | 1097001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D09708-CAL1 | 040711A-002 | 04/07/11 08:37 |
| Cal Standard | 1D09708-CAL2 | 040711A-003 | 04/07/11 08:42 |
| Cal Standard | 1D09708-CAL3 | 040711A-004 | 04/07/11 08:46 |
| Cal Standard | 1D09708-CAL6 | 040711A-007 | 04/07/11 09:01 |
| Initial Cal Check | 1D09708-ICV1 | 040711B-001 | 04/07/11 09:46 |
| Initial Cal Blank | 1D09708-ICB1 | 040711B-002 | 04/07/11 09:53 |
| Instrument RL Check | 1D09708-CRL1 | 040711B-003 | 04/07/11 09:58 |
| Interference Check A | 1D09708-IFA1 | 040711C-001 | 04/07/11 10:21 |
| Interference Check B | 1D09708-IFB2 | 040711C-004 | 04/07/11 10:40 |
| Calibration Check | 1D09708-CCV1 | 040711C-006 | 04/07/11 10:52 |
| Calibration Blank | 1D09708-CCB1 | 040711C-007 | 04/07/11 10:59 |
| Blank | 1D06001-BLK1 | 040711C-008 | 04/07/11 11:04 |
| LCS | 1D06001-BS1 | 040711C-009 | 04/07/11 11:09 |
| Calibration Check | 1D09708-CCV2 | 040711C-024 | 04/07/11 12:22 |
| Calibration Blank | 1D09708-CCB2 | 040711C-025 | 04/07/11 12:29 |
| EQUIPMENT BLANK 02 | 1103237-15 | 040711D-001 | 04/07/11 12:40 |
| Calibration Check | 1D09708-CCV3 | 040711D-010 | 04/07/11 13:23 |
| Calibration Blank | 1D09708-CCB3 | 040711D-011 | 04/07/11 13:30 |

# PREPARATION BATCH SUMMARY

## SW6010C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06001 Batch Matrix: Water Preparation: MET_3005A

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIPMENT BLANK 02 | 1103237-15 | 04/06/11 07:37 | 50.00 | 50.00 |
| Blank | 1D06001-BLK1 | 04/06/11 07:37 | 50.00 | 50.00 |
| LCS | 1D06001-BS1 | 04/06/11 07:37 | 50.00 | 50.00 |

# INITIAL CALIBRATION DATA

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1097001 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:37 4/7/11 9:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Aluminum | 0 | 0 | 5000 | 1.991E-05 | 10000 | 2.0478E-05 | | | 500000 | 2.0454E-05 | | |
| Antimony | 0 | 0 | 100 | 0.0008652 | 1000 | 9.2905E-04 | | | | | 10000 | 0.0009137 |
| Arsenic | 0 | 0 | 100 | 0.0002615 | 1000 | 2.9685E-04 | | | | | 10000 | 0.0002989 |
| Barium | 0 | 0 | 50 | 0.013737 | 1000 | 0.013189 | 5000 | 0.0130722 | | | | |
| Beryllium | 0 | 0 | 100 | 0.0023991 | 1000 | 0.0024148 | | | | | 10000 | 0.0024364 |
| Boron | 0 | 0 | 50 | 0.000013 | 1000 | 1.312E-05 | | | | | 5000 | 1.3194E-05 |
| Cadmium | 0 | 0 | 100 | 0.012433 | 1000 | 0.01299 | | | | | 10000 | 0.012451 |
| Calcium | 0 | 0 | 1100 | 3.505455E-05 | 50000 | 3.4846E-05 | | | | | 10000 | |
| Chromium | 0 | 0 | 100 | 0.0000302 | 1000 | 2.961E-05 | | | | | 10000 | 3.083E-05 |
| Cobalt | 0 | 0 | 100 | 0.0063148 | 1000 | 0.0064403 | | | | | 10000 | 0.0064861 |
| Copper | 0 | 0 | 100 | 0.0000902 | 1000 | 8.702E-05 | | | | | 10000 | 8.6397E-05 |
| Iron | 0 | 0 | 5100 | 0.0000136 | 10000 | 1.3401E-05 | | | 500000 | 1.31224E-05 | 10000 | |
| Lead | 0 | 0 | 100 | 0.0013917 | 1000 | 0.0014008 | | | | | 10000 | 0.0014008 |
| Magnesium | 0 | 0 | 5100 | | 50000 | 1.4338E-06 | | | 500000 | 1.54152E-06 | 10000 | |
| Manganese | 0 | 0 | 100 | 0.0002092 | 1000 | 2.0259E-04 | 10000 | 1.9385E-04 | | | 10000 | |
| Molybdenum | 0 | 0 | 100 | 0.0046297 | 1000 | 0.0047786 | | | | | 10000 | 0.0046234 |
| Nickel | 0 | 0 | 100 | 0.0032358 | 1000 | 0.0033933 | | | | | 10000 | 0.003453 |
| Potassium | 0 | 0 | 1000 | 9.66E-06 | 10000 | 1.0968E-05 | | | | | | |
| Selenium | 0 | 0 | 100 | 0.0004847 | 1000 | 0.0004896 | | | | | 10000 | 4.7336E-04 |
| Silver | 0 | 0 | 20 | 0.0000525 | 500 | 0.0000496 | 2000 | 5.163E-05 | | | | |
| Sodium | 0 | 0 | 1000 | | 50000 | 4.8402E-05 | | | | | | |
| Strontium | 0 | 0 | 100 | 0.001702 | 1000 | 0.001668 | | | | | 10000 | 0.001705 |
| Thallium | 0 | 0 | 100 | 0.0008984 | 1000 | 9.0546E-04 | | | | | 10000 | 9.0884E-04 |
| Tin | 0 | 0 | 50 | 0.0012692 | 1000 | 0.0013271 | | | | | 5000 | 1.29788E-03 |
| Titanium | 0 | 0 | 100 | 0.0002087 | 1000 | 2.0538E-04 | | | | | 10000 | 2.1142E-04 |
| Vanadium | 0 | 0 | 100 | 0.0000397 | 1000 | 3.911E-05 | | | | | 10000 | 3.9655E-05 |
| Zinc | 0 | 0 | 100 | 0.0047408 | 1000 | 0.0049112 | | | | | 10000 | 0.0047792 |

# INITIAL CALIBRATION DATA (Continued)

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1097001 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:37 4/7/11 9:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Aluminum | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | |
| Boron | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | |
| Calcium | 100000 | | 500000 | 3.4906E-05 | | | | | | | | |
| Chromium | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | |
| Magnesium | | | 100000 | 1.4735E-06 | | | | | | | | |
| Manganese | | | | | | | | | | | | |
| Molybdenum | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | |
| Potassium | 100000 | 1.114E-05 | | | | | | | | | | |
| Selenium | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | |
| Sodium | 100000 | 4.8054E-05 | 500000 | 4.7884E-05 | | | | | | | | |
| Strontium | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | |
| Tin | | | | | | | | | | | | |
| Titanium | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1097001 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:37 4/7/11 9:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 1.52105E-05 | 66.68896 | 6.107715 | 186.8521 | 0.9999999 | | 0.998 | |
| Antimony | 6.769875E-04 | 66.78774 | 9.752713 | 191.5629 | 0.9999959 | | 0.998 | |
| Arsenic | 2.143125E-04 | 67.14622 | 46.85966 | 195.074 | 0.9999991 | | 0.998 | |
| Barium | 9.99955E-03 | 66.72964 | 2.037512 | 162.6121 | 0.9999973 | | 0.998 | |
| Beryllium | 1.812575E-03 | 66.672 | 20.7378 | 197.2575 | 0.9999993 | | 0.998 | |
| Boron | 9.8285E-06 | 66.67163 | 2.79141 | 166.2509 | 0.9999983 | | 0.998 | |
| Cadmium | 0.0094685 | 66.72252 | 13.84847 | 197.6564 | 0.9999811 | | 0.998 | |
| Calcium | 2.620164E-05 | 66.6675 | 1.69869 | 155.5821 | 1 | | 0.998 | |
| Chromium | 2.266E-05 | 66.7029 | 25.2241 | 196.4349 | 0.9999849 | | 0.998 | |
| Cobalt | 0.0048103 | 66.68366 | 2.40712 | 178.0512 | 0.9999995 | | 0.998 | |
| Copper | 6.590425E-05 | 66.71455 | 0.8447175 | 130.3435 | 0.9999999 | | 0.998 | |
| Iron | 1.003085E-05 | 66.69526 | 21.66392 | 197.2161 | 0.9999999 | | 0.998 | |
| Lead | 1.048325E-03 | 66.66793 | 27.0236 | 196.1913 | 1 | | 0.998 | |
| Magnesium | 1.112205E-06 | 66.78651 | 684.2142 | 199.8776 | 0.9999166 | | 0.998 | |
| Manganese | 1.5141E-04 | 66.79584 | 9.704292 | 190.7178 | 0.9999822 | | 0.998 | |
| Molybdenum | 3.507925E-03 | 66.69801 | 11.6497 | 192.4787 | 0.9999888 | | 0.998 | |
| Nickel | 2.520525E-03 | 66.76569 | 3.007653 | 182.4882 | 0.9999981 | | 0.998 | |
| Potassium | 7.942E-06 | 67.18399 | 1.459885 | 74.30132 | 0.9999998 | | 0.998 | |
| Selenium | 3.61915E-04 | 66.69315 | 3.362628 | 178.1845 | 0.9999898 | | 0.998 | |
| Silver | 3.84325E-05 | 66.74159 | 6.903345 | 185.9063 | 0.9998884 | | 0.998 | |
| Sodium | 3.6085E-05 | 66.66934 | 2.41139 | 118.5887 | 0.999999 | | 0.998 | |
| Strontium | 1.26875E-03 | 66.67978 | 11.9523 | 191.121 | 0.9999953 | | 0.998 | |
| Thallium | 6.78175E-04 | 66.66975 | 13.48664 | 189.1548 | 0.9999999 | | 0.998 | |
| Tin | 9.73545E-04 | 66.71087 | 6.28929 | 183.3893 | 0.9999759 | | 0.998 | |
| Titanium | 1.56375E-04 | 66.68538 | 10.05273 | 196.0454 | 0.999992 | | 0.998 | |
| Vanadium | 2.961625E-05 | 66.67281 | 3.230227 | 178.8556 | 0.999998 | | 0.998 | |
| Zinc | 0.0036078 | 66.69735 | 53.0825 | 198.8446 | 0.9999921 | | 0.998 | |

# INITIAL AND CONTINUING CALIBRATION CHECK

## SW6010C

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP

SDG: CTOJM26_003
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1097001
Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units | Control Limit |
|---|---|---|---|---|---|---|
| 1D09708-ICV1 | Lead | 1000 | 1028 | 103 | ug/L | +/- 10.00% |
| 1D09708-CCV1 | Lead | 1000 | 1036 | 104 | ug/L | +/- 10.00% |
| 1D09708-CCV2 | Lead | 1000 | 968.7 | 96.9 | ug/L | +/- 10.00% |
| 1D09708-CCV3 | Lead | 1000 | 939.8 | 94.0 | ug/L | +/- 10.00% |

# CRDL STANDARD

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| 1D09708-CRL1 | Lead | 3.000 | 3.266 | 109 | ug/L | 80 - 120 |

# BLANKS
## SW6010C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_003
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D09708
Calibration: 1097001

| Lab Sample ID | Analyte | Found | MDL | MRL | Units | C | Method |
|---|---|---|---|---|---|---|---|
| 1D09708-ICB1 | Lead | -0.1227 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB1 | Lead | 0.0633 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D06001-BLK1 | Lead | 0.148 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB2 | Lead | 0.0883 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB3 | Lead | 0.106 | 1.50 | 3.00 | ug/L | U | SW6010C |

# ICP INTERFERENCE CHECK SAMPLE

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_003

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units |
|---|---|---|---|---|---|
| 1D09708-IFA1 | Lead | | 14.03 | | ug/L |
| 1D09708-IFB2 | Lead | 50.00 | 59.89 | 120 | ug/L |

# LCS / LCS DUPLICATE RECOVERY

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_003 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D06001 | Laboratory ID: | 1D06001-BS1 |
| Preparation: | MET_3005A | Initial/Final: | 50 mL / 50 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Lead | 250.0 | 240.0 | 96.0 | 80 - 120 |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_003

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** ME-ICP

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Lead | 1.50 | 3.00 | ug/L | SW6010C |

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_003

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Al | Ca | Fe | Mg | Ag |
| Lead | 220.3 | 0.0002980 | 0.0000000 | 0.0000080 | 0.0003250 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_003

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | As | B | Ba | Be | Cd |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_003

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Co | Cr | Cu | K | Mn |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0022600 | 0.0000000 | 0.0000990 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_003

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Mo | Na | Ni | Pb | Sb |
| Lead | 220.3 | -0.0026440 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_003

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Se | Sn | Ti | Tl | V |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0000360 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_003

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: Zn | | | | |
|---|---|---|---|---|---|---|
| Lead | 220.3 | 0.0000000 | | | | |

Comments:

FORM XA-IN

# ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010) SDG: CTOJM26_003

Project: NAS Pensacola CTO JM26 Saufley

ICP Instrument ID: ME-ICP Date: 09/11/2009

| Analyte | Integ. Time (Sec.) | Concentration ug/L | M |
|---|---|---|---|
| Lead | 15 | 10000 | P |

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 18, 2011** |
| **FROM:** | **JOSEPH KALINYAK** | **COPIES:** | **DV FILE** |

**SUBJECT:** **ORGANIC DATA VALIDATION: VOC / PAH / TPH**
**INORGANIC DATA VALIDATION: LEAD**
**SAUFLEY FIELD, CTO JM26**
**SDG CTOJM26_004**

**SAMPLES:** 2 / Aqueous / VOC

05-MW-084 TRIP BLANK 9486

15 / Soil / VOC (abbreviated list, MTBE & BTEX) / PAH / TPH

| | | |
|---|---|---|
| 05-SS-070-0406 | 05-SS-073-0406 | 05-SS-073-0406-D |
| 05-SS-074-0406 | 05-SS-078-0406 | 05-SS-079-0406 |
| 05-SS-080-0406 | 05-SS-081-0406 | 05-SS-082-0406 |
| 05-SS-083-0406 | 05-SS-084-0406 | 05-SS-085-0406 |
| 05-SS-086-0406 | 05-SS-086-0406-D | 05-SS-087-0406 |

1 / Aqueous / PAH / TPH / 1,2-Dibromoethane / Lead

05-MW-084

## OVERVIEW

The sample set for Saufley Field, CTO JM26, SDG CTOJM26_004 consisted of fifteen (15) soil environmental samples, one (1) aqueous groundwater sample and one (1) aqueous QC trip blank sample. The soil samples were analyzed for an abbreviated list of volatile organic compounds (VOCs) (benzene, ethylbenzene, methyl tert-butyl ether, toluene, and total xylenes), polynuclear aromatic hydrocarbons (PAH), and for total petroleum hydrocarbons (TPH) as listed above. The one (1) ground water sample 05-MW-084 was analyzed for VOCs, 1,2-dibromoethane, PAHs, TPH, and lead. The one (1) aqueous QC trip blank was analyzed for VOCs only. Two (2) field duplicate sample pairs were included in this sample delivery group (SDG); 05-SS-073-0406-D / 05-SS-073-0406 and 05-SS-086-0406-D / 05-SS-086-0406.

The samples were collected by TetraTech NUS on March 29, 2011 and analyzed by Empirical Laboratories LLC. All analyses were conducted using USEPA SW-846 Methods 8260B, 8270C SIM, 8011, 6010C and Florida Petroleum Range Organics (FL-PRO) analytical and reporting protocols.

The sample data in this SDG were validated with regard to the following list of parameters.

- Data Completeness
- * Holding Times
- * GC/MS Tuning
- Initial and Continuing Calibration
- * Laboratory Blank Analyses
- * Field Duplicate Precision
- * Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

## VOC

The initial calibration relative response factor (RRF) was less than the 0.05 quality control limit for acrolein for instrument MS-VOA5 on 03/17/11 affecting the analysis of groundwater samples 05-MW-084 and TRIP BLANK 9486. Additionally, the continuing calibration verification (CCV) RRF was less than the 0.05 quality control limit for acrolein on 04/01/11 @ 18:19 affecting the aforementioned samples. The non-detected acrolein results for samples 05-MW-084 and TRIP BLANK 948 were rejected, (UR).

Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

## PAH

No issues were identified.

## TPH

The sample to extraction hold time of 14 days was exceeded by approximately 1 day for sample 05-SS-087-0406 (<2X the hold time). The non-detected TPH result for sample 05-SS-087-0406 was qualified estimated, (UJ).

## LEAD

The ground water sample 05-MW-084 was diluted 5X for the lead analysis.

## ADDITIONAL COMMENTS

The initial laboratory VOC sample results, laboratory forms, and raw data for VOCs used an incorrect list of analyte parameters for the analysis of sample 05-MW-084. The laboratory was contacted and a corrected revised laboratory report was submitted and used to re-validate the sample data for VOCs. Trichlorofluoromethane was omitted from the revised VOC list and a second revision was required.

The samples 05-MW-084 and TRIP BLANK 9486 had laboratory reported Method Detection Limits (MDL) greater than the Project Action Limit (PAL) for VOCs 1,1,,2,2-tetrachloroethane and acrylonitrile as listed in the Sampling and Analysis Plan (SAP). The SAP had noted that the laboratory MDL was greater than the PAL and no action was taken for this issue.

## EXECUTIVE SUMMARY

**Laboratory Performance Issues:** The laboratory used an incorrect list of VOC analytes for reporting 05-MW-084 sample results. The laboratory resubmitted the sample results. The resubmission results were missing the analyte trichlorofluoromethane and a second revision was required. Acrolein non-detected results for the aqueous samples were rejected due to RRF quality control limit non-compliances.

**Other factors affecting data quality:** Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999), the site Sample Analysis Plan (SAP), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Joseph Kalinyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

## Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

## DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

| PROJ_NO: 02748 | NSAMPLE | 05-MW-084 | | | TRIP BLANK 9486 | | |
|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-13 | | | 1103257-05 | | |
| FRACTION: OV | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1,1,1-TRICHLOROETHANE | | 0.25 | U | | 0.25 | U | |
| 1,1,2,2-TETRACHLOROETHANE | | 0.25 | U | | 0.25 | U | |
| 1,1,2-TRICHLOROETHANE | | 0.25 | U | | 0.25 | U | |
| 1,1-DICHLOROETHANE | | 0.25 | U | | 0.25 | U | |
| 1,1-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | |
| 1,2,4-TRICHLOROBENZENE | | 0.25 | U | | 0.25 | U | |
| 1,2-DIBROMOETHANE | | 0.00799 | U | | 0.25 | U | |
| 1,2-DICHLOROETHANE | | 0.25 | U | | 0.25 | U | |
| 1,2-DICHLOROPROPANE | | 0.25 | U | | 0.25 | U | |
| 2-CHLOROETHYL VINYL ETHER | | 1.25 | U | | 1.25 | U | |
| ACROLEIN | | 1.2 | UR | C | 1.2 | UR | C |
| ACRYLONITRILE | | 2.5 | U | | 2.5 | U | |
| BENZENE | | 0.25 | U | | 0.25 | U | |
| BROMODICHLOROMETHANE | | 0.25 | U | | 0.25 | U | |
| BROMOFORM | | 0.25 | U | | 0.25 | U | |
| BROMOMETHANE | | 0.5 | U | | 0.5 | U | |
| CARBON TETRACHLORIDE | | 0.25 | U | | 0.25 | U | |
| CHLOROBENZENE | | 0.25 | U | | 0.25 | U | |
| CHLORODIBROMOMETHANE | | 0.25 | U | | 0.25 | U | |
| CHLOROETHANE | | 0.5 | U | | 0.5 | U | |
| CHLOROFORM | | 0.676 | J | P | 0.25 | U | |
| CHLOROMETHANE | | 0.25 | U | | 0.25 | U | |
| CIS-1,2-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | |
| CIS-1,3-DICHLOROPROPENE | | 0.25 | U | | 0.25 | U | |
| ETHYLBENZENE | | 0.271 | J | P | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | | 0.25 | U | |
| TETRACHLOROETHENE | | 0.25 | U | | 0.25 | U | |
| TOLUENE | | 0.742 | J | P | 0.25 | U | |
| TOTAL XYLENES | | 1.06 | J | P | 0.75 | U | |
| TRANS-1,2-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | |
| TRANS-1,3-DICHLOROPROPENE | | 0.25 | U | | 0.25 | U | |
| TRICHLOROETHENE | | 0.25 | U | | 0.25 | U | |
| TRICHLOROFLUOROMETHANE | | 0.5 | U | | 0.5 | U | |
| VINYL CHLORIDE | | 0.25 | U | | 0.25 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-070-0406 | | | 05-SS-073-0406 | | | 05-SS-073-0406-D | | | 05-SS-074-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-01 | | | 1103257-03 | | | 1103257-02 | | | 1103257-04RE1 | | |
| FRACTION: OV | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.9 | | | 93.7 | | | 93.2 | | | 88.4 | | |
| | DUP_OF | | | | | | | 05-SS-073-0406 | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00158 | U | | 0.00164 | U | | 0.00151 | U | | 0.00137 | U | |
| ETHYLBENZENE | | 0.00095 | U | | 0.000983 | U | | 0.000904 | U | | 0.000819 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00158 | U | | 0.00164 | U | | 0.00151 | U | | 0.00137 | U | |
| TOLUENE | | 0.00109 | U | | 0.00113 | U | | 0.00104 | U | | 0.000939 | U | |
| TOTAL XYLENES | | 0.00475 | U | | 0.00492 | U | | 0.00452 | U | | 0.0041 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-078-0406 | | | 05-SS-079-0406 | | | 05-SS-080-0406 | | | 05-SS-081-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-06 | | | 1103257-07 | | | 1103257-08RE1 | | | 1103257-09 | | |
| FRACTION: OV | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.8 | | | 87.6 | | | 93.6 | | | 92.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00153 | U | | 0.00154 | U | | 0.0016 | U | | 0.00162 | U | |
| ETHYLBENZENE | | 0.000919 | U | | 0.000922 | U | | 0.000959 | U | | 0.000973 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00153 | U | | 0.00154 | U | | 0.0016 | U | | 0.00162 | U | |
| TOLUENE | | 0.00105 | U | | 0.00106 | U | | 0.0011 | U | | 0.00112 | U | |
| TOTAL XYLENES | | 0.0046 | U | | 0.00461 | U | | 0.00479 | U | | 0.00486 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-082-0406 | | | 05-SS-083-0406 | | | 05-SS-084-0406 | | | 05-SS-085-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-10 | | | 1103257-11 | | | 1103257-12 | | | 1103257-14 | | |
| FRACTION: OV | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.0 | | | 92.0 | | | 91.1 | | | 83.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00154 | U | | 0.00173 | U | | 0.00166 | U | | 0.00197 | U | |
| ETHYLBENZENE | | 0.000926 | U | | 0.00104 | U | | 0.000996 | U | | 0.00118 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00154 | U | | 0.00173 | U | | 0.00166 | U | | 0.00197 | U | |
| TOLUENE | | 0.00106 | U | | 0.00119 | U | | 0.00114 | U | | 0.00135 | U | |
| TOTAL XYLENES | | 0.00463 | U | | 0.0052 | U | | 0.00498 | U | | 0.0059 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-086-0406 | | | 05-SS-086-0406-D | | | 05-SS-087-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-15 | | | 1103257-16 | | | 1103257-17 | | |
| FRACTION: OV | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.8 | | | 89.7 | | | 93.0 | | |
| | DUP_OF | | | | 05-SS-086-0406 | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00149 | U | | 0.00168 | U | | 0.0015 | U | |
| ETHYLBENZENE | | 0.000897 | U | | 0.00101 | U | | 0.0009 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00149 | U | | 0.00168 | U | | 0.0015 | U | |
| TOLUENE | | 0.00103 | U | | 0.00116 | U | | 0.00103 | U | |
| TOTAL XYLENES | | 0.00448 | U | | 0.00505 | U | | 0.0045 | U | |

| | | |
|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-084 |
| **SDG: CTOJM26_004** | LAB_ID | 1103257-13 |
| **FRACTION: PAH** | SAMP_DATE | 3/29/2011 |
| **MEDIA: WATER** | QC_TYPE | NM |
| | UNITS | UG/L |
| | PCT_SOLIDS | 0.0 |
| | DUP_OF | |

| PARAMETER | RESULT | VQL | QLCD |
|---|---|---|---|
| 1-METHYLNAPHTHALENE | 0.0681 | J | P |
| 2-METHYLNAPHTHALENE | 0.119 | J | P |
| ACENAPHTHENE | 0.049 | U | |
| ACENAPHTHYLENE | 0.049 | U | |
| ANTHRACENE | 0.049 | U | |
| BENZO(A)ANTHRACENE | 0.049 | U | |
| BENZO(A)PYRENE | 0.049 | U | |
| BENZO(B)FLUORANTHENE | 0.049 | U | |
| BENZO(G,H,I)PERYLENE | 0.049 | U | |
| BENZO(K)FLUORANTHENE | 0.049 | U | |
| CHRYSENE | 0.049 | U | |
| DIBENZO(A,H)ANTHRACENE | 0.049 | U | |
| FLUORANTHENE | 0.049 | U | |
| FLUORENE | 0.049 | U | |
| INDENO(1,2,3-CD)PYRENE | 0.049 | U | |
| NAPHTHALENE | 0.455 | | |
| PHENANTHRENE | 0.049 | U | |
| PYRENE | 0.049 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-070-0406 | | | 05-SS-073-0406 | | | 05-SS-073-0406-D | | | 05-SS-074-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-01 | | | 1103257-03 | | | 1103257-02 | | | 1103257-04 | | |
| FRACTION: PAH | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.9 | | | 93.7 | | | 93.2 | | | 88.4 | | |
| | DUP_OF | | | | | | | 05-SS-073-0406 | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| 2-METHYLNAPHTHALENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| ACENAPHTHENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| ACENAPHTHYLENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| ANTHRACENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| BENZO(A)ANTHRACENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| BENZO(A)PYRENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| BENZO(B)FLUORANTHENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| BENZO(K)FLUORANTHENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| CHRYSENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| FLUORANTHENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| FLUORENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| NAPHTHALENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| PHENANTHRENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |
| PYRENE | | 0.00171 | U | | 0.00174 | U | | 0.00176 | U | | 0.00179 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-078-0406 | | | 05-SS-079-0406 | | | 05-SS-080-0406 | | | 05-SS-081-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-06 | | | 1103257-07 | | | 1103257-08 | | | 1103257-09 | | |
| FRACTION: PAH | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.8 | | | 87.6 | | | 93.6 | | | 92.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| 2-METHYLNAPHTHALENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| ACENAPHTHENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| ACENAPHTHYLENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| ANTHRACENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| BENZO(A)ANTHRACENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| BENZO(A)PYRENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| BENZO(B)FLUORANTHENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| BENZO(K)FLUORANTHENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| CHRYSENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| FLUORANTHENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| FLUORENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| NAPHTHALENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| PHENANTHRENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |
| PYRENE | | 0.00175 | U | | 0.00189 | U | | 0.00172 | U | | 0.0018 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-082-0406 | | | 05-SS-083-0406 | | | 05-SS-084-0406 | | | 05-SS-085-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-10 | | | 1103257-11 | | | 1103257-12 | | | 1103257-14 | | |
| FRACTION: PAH | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.0 | | | 92.0 | | | 91.1 | | | 83.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| 2-METHYLNAPHTHALENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| ACENAPHTHENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| ACENAPHTHYLENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| ANTHRACENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| BENZO(A)ANTHRACENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| BENZO(A)PYRENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| BENZO(B)FLUORANTHENE | | 0.0018 | U | | 0.00207 | J | P | 0.00176 | U | | 0.00198 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| BENZO(K)FLUORANTHENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| CHRYSENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| FLUORANTHENE | | 0.0018 | U | | 0.00389 | J | P | 0.00176 | U | | 0.00198 | U | |
| FLUORENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| NAPHTHALENE | | 0.0018 | U | | 0.00178 | U | | 0.00176 | U | | 0.00198 | U | |
| PHENANTHRENE | | 0.0018 | U | | 0.00335 | J | P | 0.00176 | U | | 0.00198 | U | |
| PYRENE | | 0.0018 | U | | 0.00282 | J | P | 0.00176 | U | | 0.00198 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-086-0406 | | | 05-SS-086-0406-D | | | 05-SS-087-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-15 | | | 1103257-16 | | | 1103257-17 | | |
| FRACTION: PAH | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.8 | | | 89.7 | | | 93.0 | | |
| | DUP_OF | | | | 05-SS-086-0406 | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| 2-METHYLNAPHTHALENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| ACENAPHTHENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| ACENAPHTHYLENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| ANTHRACENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| BENZO(A)ANTHRACENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| BENZO(A)PYRENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| BENZO(B)FLUORANTHENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| BENZO(K)FLUORANTHENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| CHRYSENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| FLUORANTHENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| FLUORENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| NAPHTHALENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| PHENANTHRENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |
| PYRENE | | 0.00187 | U | | 0.0018 | U | | 0.00178 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-084 | | |
| **SDG: CTOJM26_004** | LAB_ID | 1103257-13 | | |
| **FRACTION: PET** | SAMP_DATE | 3/29/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | MG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.2 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-070-0406 | | | 05-SS-073-0406 | | | 05-SS-073-0406-D | | | 05-SS-074-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-01 | | | 1103257-03 | | | 1103257-02 | | | 1103257-04 | | |
| FRACTION: PET | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.9 | | | 93.7 | | | 93.2 | | | 88.4 | | |
| | DUP_OF | | | | | | | 05-SS-073-0406 | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.2 | U | | 11.1 | U | | 11.8 | U | | 12.4 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-078-0406 | | | 05-SS-079-0406 | | | 05-SS-080-0406 | | | 05-SS-081-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-06 | | | 1103257-07 | | | 1103257-08 | | | 1103257-09 | | |
| FRACTION: PET | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 93.8 | | | 87.6 | | | 93.6 | | | 92.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.5 | U | | 12.2 | U | | 11.1 | U | | 11.7 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-082-0406 | | | 05-SS-083-0406 | | | 05-SS-084-0406 | | | 05-SS-085-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_004 | LAB_ID | 1103257-10 | | | 1103257-11 | | | 1103257-12 | | | 1103257-14 | | |
| FRACTION: PET | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.0 | | | 92.0 | | | 91.1 | | | 83.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.6 | U | | 12 | U | | 11.9 | U | | 12.5 | U | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-086-0406 | | | 05-SS-086-0406-D | | | 05-SS-087-0406 | | |
| **SDG: CTOJM26_004** | LAB_ID | 1103257-15 | | | 1103257-16 | | | 1103257-17 | | |
| **FRACTION: PET** | SAMP_DATE | 3/29/2011 | | | 3/29/2011 | | | 3/29/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.8 | | | 89.7 | | | 93.0 | | |
| | DUP_OF | | | | 05-SS-086-0406 | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.1 | U | | 12 | U | | 11.4 | UJ | H |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-084 | | |
| **SDG: CTOJM26_004** | LAB_ID | 1103257-13 | | |
| **FRACTION: M** | SAMP_DATE | 3/29/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| LEAD | | 68.4 | | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-MW-084**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103257-13 | File ID: | 0325713.D |
| Sampled: | 03/29/11 13:40 | Prepared: | 04/01/11 11:49 | Analyzed: | 04/01/11 21:47 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D01013 Sequence: 1D09202 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | 0.676 | 0.250 | 0.500 | 1.00 | I |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | 0.271 | 0.250 | 0.500 | 1.00 | I |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | 0.742 | 0.250 | 0.500 | 1.00 | I |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichlorocthene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | 1.06 | 0.750 | 1.50 | 3.00 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.95 | 107 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.84 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.46 | 105 | 70 - 120 | |

# ANALYSIS DATA SHEET

**TRIP BLANK 9486**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1103257-05 | File ID: | 0325705.D |
| Sampled: | 03/29/11 00:00 | Prepared: | 04/01/11 11:49 | Analyzed: | 04/01/11 20:47 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D01013 Sequence: 1D09202 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.99 | 107 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.99 | 103 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.34 | 101 | 70 - 120 | |

# ANALYSIS DATA SHEET

05-SS-070-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-01 | File ID: | 0325701.D |
| Sampled: | 03/29/11 07:30 | Prepared: | 04/04/11 00:00 | Analyzed: | 04/05/11 03:34 |
| Solids: | 93.95 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D04014 Sequence: 1D09502 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00158 | 0.00317 | 0.00634 | U |
| 100-41-4 | Ethylbenzene | | 0.000950 | 0.00317 | 0.00634 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00158 | 0.00317 | 0.00634 | U |
| 108-88-3 | Toluene | | 0.00109 | 0.00317 | 0.00634 | U |
| 1330-20-7 | Xylenes (total) | | 0.00475 | 0.00950 | 0.0190 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03801 | 0.03830 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03801 | 0.03957 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03801 | 0.03922 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03801 | 0.03856 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-073-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-03 | File ID: | 0325703.D |
| Sampled: | 03/29/11 07:45 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 11:55 |
| Solids: | 93.72 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00164 | 0.00328 | 0.00655 | U |
| 100-41-4 | Ethylbenzene | | 0.000983 | 0.00328 | 0.00655 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00164 | 0.00328 | 0.00655 | U |
| 108-88-3 | Toluene | | 0.00113 | 0.00328 | 0.00655 | U |
| 1330-20-7 | Xylenes (total) | | 0.00492 | 0.00983 | 0.0197 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03932 | 0.03972 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03932 | 0.03979 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03932 | 0.04031 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03932 | 0.04006 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-073-0406-D

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-02 | File ID: | 0325702.D |
| Sampled: | 03/29/11 07:45 | Prepared: | 04/04/11 00:00 | Analyzed: | 04/05/11 03:59 |
| Solids: | 93.25 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D04014 Sequence: 1D09502 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00151 | 0.00301 | 0.00602 | U |
| 100-41-4 | Ethylbenzene | | 0.000904 | 0.00301 | 0.00602 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00151 | 0.00301 | 0.00602 | U |
| 108-88-3 | Toluene | | 0.00104 | 0.00301 | 0.00602 | U |
| 1330-20-7 | Xylenes (total) | | 0.00452 | 0.00904 | 0.0181 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03615 | 0.03524 | 97.5 | 85 - 120 | |
| Dibromofluoromethane | 0.03615 | 0.03716 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03615 | 0.03655 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03615 | 0.03661 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-074-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-04RE1 | File ID: | 0325704.D |
| Sampled: | 03/29/11 08:25 | Prepared: | 04/06/11 00:00 | Analyzed: | 04/06/11 10:35 |
| Solids: | 88.39 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D06003 Sequence: 1D09701 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00137 | 0.00273 | 0.00546 | U |
| 100-41-4 | Ethylbenzene | | 0.000819 | 0.00273 | 0.00546 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00137 | 0.00273 | 0.00546 | U |
| 108-88-3 | Toluene | | 0.000939 | 0.00273 | 0.00546 | U |
| 1330-20-7 | Xylenes (total) | | 0.00410 | 0.00819 | 0.0164 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03276 | 0.03319 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03276 | 0.03399 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03276 | 0.03388 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03276 | 0.03419 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-078-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-06 | File ID: | 0325706.D |
| Sampled: | 03/29/11 09:05 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 12:43 |
| Solids: | 93.79 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00153 | 0.00306 | 0.00613 | U |
| 100-41-4 | Ethylbenzene | | 0.000919 | 0.00306 | 0.00613 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00153 | 0.00306 | 0.00613 | U |
| 108-88-3 | Toluene | | 0.00105 | 0.00306 | 0.00613 | U |
| 1330-20-7 | Xylenes (total) | | 0.00460 | 0.00919 | 0.0184 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03676 | 0.03722 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03676 | 0.03707 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03676 | 0.03606 | 98.1 | 75 - 140 | |
| Toluene-d8 | 0.03676 | 0.03811 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-079-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-07 | File ID: | 0325707.D |
| Sampled: | 03/29/11 09:25 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 13:08 |
| Solids: | 87.61 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00154 | 0.00307 | 0.00615 | U |
| 100-41-4 | Ethylbenzene | | 0.000922 | 0.00307 | 0.00615 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00154 | 0.00307 | 0.00615 | U |
| 108-88-3 | Toluene | | 0.00106 | 0.00307 | 0.00615 | U |
| 1330-20-7 | Xylenes (total) | | 0.00461 | 0.00922 | 0.0184 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03690 | 0.03613 | 97.9 | 85 - 120 | |
| Dibromofluoromethane | 0.03690 | 0.03741 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03690 | 0.03763 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03690 | 0.03807 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-080-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-08RE1 | File ID: | 0325708.D |
| Sampled: | 03/29/11 09:50 | Prepared: | 04/06/11 00:00 | Analyzed: | 04/06/11 11:00 |
| Solids: | 93.59 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D06003 Sequence: 1D09701 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00160 | 0.00320 | 0.00639 | U |
| 100-41-4 | Ethylbenzene | | 0.000959 | 0.00320 | 0.00639 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00160 | 0.00320 | 0.00639 | U |
| 108-88-3 | Toluene | | 0.00110 | 0.00320 | 0.00639 | U |
| 1330-20-7 | Xylenes (total) | | 0.00479 | 0.00959 | 0.0192 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03834 | 0.03753 | 97.9 | 85 - 120 | |
| Dibromofluoromethane | 0.03834 | 0.03870 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03834 | 0.03926 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03834 | 0.03999 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-081-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-09 | File ID: | 0325709.D |
| Sampled: | 03/29/11 10:35 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 13:56 |
| Solids: | 92.90 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00162 | 0.00324 | 0.00648 | U |
| 100-41-4 | Ethylbenzene | | 0.000973 | 0.00324 | 0.00648 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00162 | 0.00324 | 0.00648 | U |
| 108-88-3 | Toluene | | 0.00112 | 0.00324 | 0.00648 | U |
| 1330-20-7 | Xylenes (total) | | 0.00486 | 0.00973 | 0.0195 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03891 | 0.03839 | 98.7 | 85 - 120 | |
| Dibromofluoromethane | 0.03891 | 0.04022 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03891 | 0.03720 | 95.6 | 75 - 140 | |
| Toluene-d8 | 0.03891 | 0.03968 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-082-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-10 | File ID: | 0325710.D |
| Sampled: | 03/29/11 11:50 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 14:21 |
| Solids: | 90.99 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00154 | 0.00309 | 0.00617 | U |
| 100-41-4 | Ethylbenzene | | 0.000926 | 0.00309 | 0.00617 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00154 | 0.00309 | 0.00617 | U |
| 108-88-3 | Toluene | | 0.00106 | 0.00309 | 0.00617 | U |
| 1330-20-7 | Xylenes (total) | | 0.00463 | 0.00926 | 0.0185 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03704 | 0.03670 | 99.1 | 85 - 120 | |
| Dibromofluoromethane | 0.03704 | 0.03768 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03704 | 0.03605 | 97.3 | 75 - 140 | |
| Toluene-d8 | 0.03704 | 0.03786 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-083-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-11 | File ID: | 0325711.D |
| Sampled: | 03/29/11 12:25 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 14:45 |
| Solids: | 91.99 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00173 | 0.00347 | 0.00693 | U |
| 100-41-4 | Ethylbenzene | | 0.00104 | 0.00347 | 0.00693 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00173 | 0.00347 | 0.00693 | U |
| 108-88-3 | Toluene | | 0.00119 | 0.00347 | 0.00693 | U |
| 1330-20-7 | Xylenes (total) | | 0.00520 | 0.0104 | 0.0208 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04160 | 0.04206 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.04160 | 0.04119 | 99.0 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04160 | 0.04069 | 97.8 | 75 - 140 | |
| Toluene-d8 | 0.04160 | 0.04287 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-084-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-12 | File ID: | 0325712.D |
| Sampled: | 03/29/11 13:00 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 15:10 |
| Solids: | 91.14 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00166 | 0.00332 | 0.00664 | U |
| 100-41-4 | Ethylbenzene | | 0.000996 | 0.00332 | 0.00664 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00166 | 0.00332 | 0.00664 | U |
| 108-88-3 | Toluene | | 0.00114 | 0.00332 | 0.00664 | U |
| 1330-20-7 | Xylenes (total) | | 0.00498 | 0.00996 | 0.0199 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03985 | 0.03933 | 98.7 | 85 - 120 | |
| Dibromofluoromethane | 0.03985 | 0.04107 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03985 | 0.03950 | 99.1 | 75 - 140 | |
| Toluene-d8 | 0.03985 | 0.03998 | 100 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-085-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103257-14 | File ID: | 0325714.D |
| Sampled: | 03/29/11 14:25 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 15:34 |
| Solids: | 83.34 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00197 | 0.00394 | 0.00787 | U |
| 100-41-4 | Ethylbenzene | | 0.00118 | 0.00394 | 0.00787 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00197 | 0.00394 | 0.00787 | U |
| 108-88-3 | Toluene | | 0.00135 | 0.00394 | 0.00787 | U |
| 1330-20-7 | Xylenes (total) | | 0.00590 | 0.0118 | 0.0236 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04724 | 0.04675 | 99.0 | 85 - 120 | |
| Dibromofluoromethane | 0.04724 | 0.04830 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04724 | 0.04756 | 101 | 75 - 140 | |
| Toluene-d8 | 0.04724 | 0.04903 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-086-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103257-15 | File ID: | 0325715.D |
| Sampled: | 03/29/11 14:45 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 15:58 |
| Solids: | 88.77 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00149 | 0.00299 | 0.00598 | U |
| 100-41-4 | Ethylbenzene | | 0.000897 | 0.00299 | 0.00598 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00149 | 0.00299 | 0.00598 | U |
| 108-88-3 | Toluene | | 0.00103 | 0.00299 | 0.00598 | U |
| 1330-20-7 | Xylenes (total) | | 0.00448 | 0.00897 | 0.0179 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03588 | 0.03685 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03588 | 0.03596 | 100 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03588 | 0.03510 | 97.8 | 75 - 140 | |
| Toluene-d8 | 0.03588 | 0.03748 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-086-0406-D

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103257-16 | File ID: | 0325716.D |
| Sampled: | 03/29/11 14:45 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 16:22 |
| Solids: | 89.75 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00168 | 0.00336 | 0.00673 | U |
| 100-41-4 | Ethylbenzene | | 0.00101 | 0.00336 | 0.00673 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00168 | 0.00336 | 0.00673 | U |
| 108-88-3 | Toluene | | 0.00116 | 0.00336 | 0.00673 | U |
| 1330-20-7 | Xylenes (total) | | 0.00505 | 0.0101 | 0.0202 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04037 | 0.04371 | 108 | 85 - 120 | |
| Dibromofluoromethane | 0.04037 | 0.04078 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04037 | 0.03971 | 98.4 | 75 - 140 | |
| Toluene-d8 | 0.04037 | 0.04201 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-087-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103257-17 | File ID: | 0325717.D |
| Sampled: | 03/29/11 15:15 | Prepared: | 04/05/11 00:00 | Analyzed: | 04/05/11 16:47 |
| Solids: | 92.99 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00150 | 0.00300 | 0.00600 | U |
| 100-41-4 | Ethylbenzene | | 0.000900 | 0.00300 | 0.00600 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00150 | 0.00300 | 0.00600 | U |
| 108-88-3 | Toluene | | 0.00103 | 0.00300 | 0.00600 | U |
| 1330-20-7 | Xylenes (total) | | 0.00450 | 0.00900 | 0.0180 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03601 | 0.03690 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03601 | 0.03575 | 99.3 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03601 | 0.03473 | 96.5 | 75 - 140 | |
| Toluene-d8 | 0.03601 | 0.03735 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-MW-084**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Ground Water | Laboratory ID: | 1103257-13 | File ID: | 024R0201.D |
| Sampled: | 03/29/11 13:40 | Prepared: | 04/06/11 13:34 | Analyzed: | 04/07/11 04:21 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00799 | 0.0160 | 0.0240 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**05-MW-084**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Ground Water | Laboratory ID: | 1103257-13 | File ID: | 0325713.D |
| Sampled: | 03/29/11 13:40 | Prepared: | 04/01/11 11:25 | Analyzed: | 04/04/11 19:18 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C31016 Sequence: 1D09509 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0490 | 0.0980 | 0.196 | U |
| 208-96-8 | Acenaphthylene | | 0.0490 | 0.0980 | 0.196 | U |
| 120-12-7 | Anthracene | | 0.0490 | 0.0980 | 0.196 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0490 | 0.0980 | 0.196 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0490 | 0.0980 | 0.196 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0490 | 0.0980 | 0.196 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0490 | 0.0980 | 0.196 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0490 | 0.0980 | 0.196 | U |
| 218-01-9 | Chrysene | | 0.0490 | 0.0980 | 0.196 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0490 | 0.0980 | 0.196 | U |
| 206-44-0 | Fluoranthene | | 0.0490 | 0.0980 | 0.196 | U |
| 86-73-7 | Fluorene | | 0.0490 | 0.0980 | 0.196 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0490 | 0.0980 | 0.196 | U |
| 90-12-0 | 1-Methylnaphthalene | 0.0681 | 0.0490 | 0.0980 | 0.196 | I |
| 91-57-6 | 2-Methylnaphthalene | 0.119 | 0.0490 | 0.0980 | 0.196 | I |
| 91-20-3 | Naphthalene | 0.455 | 0.0490 | 0.0980 | 0.196 | |
| 85-01-8 | Phenanthrene | | 0.0490 | 0.0980 | 0.196 | U |
| 129-00-0 | Pyrene | | 0.0490 | 0.0980 | 0.196 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 49.02 | 31.98 | 65.2 | 34 - 167 | |
| Terphenyl-d14 | 49.02 | 16.09 | 32.8 | 34 - 167 | * |

# ANALYSIS DATA SHEET

05-SS-070-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-01 | File ID: | 0325701.D |
| Sampled: | 03/29/11 07:30 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/08/11 23:19 |
| Solids: | 93.95 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00171 | 0.00341 | 0.0136 | U |
| 208-96-8 | Acenaphthylene | | 0.00171 | 0.00341 | 0.0136 | U |
| 120-12-7 | Anthracene | | 0.00171 | 0.00341 | 0.0136 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00171 | 0.00341 | 0.0136 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00171 | 0.00341 | 0.0136 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00171 | 0.00341 | 0.0136 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00171 | 0.00341 | 0.0136 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00171 | 0.00341 | 0.0136 | U |
| 218-01-9 | Chrysene | | 0.00171 | 0.00341 | 0.0136 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00171 | 0.00341 | 0.0136 | U |
| 206-44-0 | Fluoranthene | | 0.00171 | 0.00341 | 0.0136 | U |
| 86-73-7 | Fluorene | | 0.00171 | 0.00341 | 0.0136 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00171 | 0.00341 | 0.0136 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00171 | 0.00341 | 0.0136 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00171 | 0.00341 | 0.0136 | U |
| 91-20-3 | Naphthalene | | 0.00171 | 0.00341 | 0.0136 | U |
| 85-01-8 | Phenanthrene | | 0.00171 | 0.00341 | 0.0136 | U |
| 129-00-0 | Pyrene | | 0.00171 | 0.00341 | 0.0136 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.412 | 2.837 | 83.1 | 14 - 129 | |
| Terphenyl-d14 | 3.412 | 3.133 | 91.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-073-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-03 | File ID: | 0325703.D |
| Sampled: | 03/29/11 07:45 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/09/11 00:14 |
| Solids: | 93.72 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00174 | 0.00346 | 0.0138 | U |
| 208-96-8 | Acenaphthylene | | 0.00174 | 0.00346 | 0.0138 | U |
| 120-12-7 | Anthracene | | 0.00174 | 0.00346 | 0.0138 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00174 | 0.00346 | 0.0138 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00174 | 0.00346 | 0.0138 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00174 | 0.00346 | 0.0138 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00174 | 0.00346 | 0.0138 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00174 | 0.00346 | 0.0138 | U |
| 218-01-9 | Chrysene | | 0.00174 | 0.00346 | 0.0138 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00174 | 0.00346 | 0.0138 | U |
| 206-44-0 | Fluoranthene | | 0.00174 | 0.00346 | 0.0138 | U |
| 86-73-7 | Fluorene | | 0.00174 | 0.00346 | 0.0138 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00174 | 0.00346 | 0.0138 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00174 | 0.00346 | 0.0138 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00174 | 0.00346 | 0.0138 | U |
| 91-20-3 | Naphthalene | | 0.00174 | 0.00346 | 0.0138 | U |
| 85-01-8 | Phenanthrene | | 0.00174 | 0.00346 | 0.0138 | U |
| 129-00-0 | Pyrene | | 0.00174 | 0.00346 | 0.0138 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.464 | 3.162 | 91.3 | 14 - 129 | |
| Terphenyl-d14 | 3.464 | 3.115 | 89.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-073-0406-D

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-02 | File ID: | 0325702.D |
| Sampled: | 03/29/11 07:45 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/08/11 23:46 |
| Solids: | 93.25 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D05024 | Sequence: | 1D10202 | Calibration: | 1061004 |
| Instrument: | MS-BNA4 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00176 | 0.00350 | 0.0140 | U |
| 208-96-8 | Acenaphthylene | | 0.00176 | 0.00350 | 0.0140 | U |
| 120-12-7 | Anthracene | | 0.00176 | 0.00350 | 0.0140 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00176 | 0.00350 | 0.0140 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00176 | 0.00350 | 0.0140 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00176 | 0.00350 | 0.0140 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00176 | 0.00350 | 0.0140 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00176 | 0.00350 | 0.0140 | U |
| 218-01-9 | Chrysene | | 0.00176 | 0.00350 | 0.0140 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00176 | 0.00350 | 0.0140 | U |
| 206-44-0 | Fluoranthene | | 0.00176 | 0.00350 | 0.0140 | U |
| 86-73-7 | Fluorene | | 0.00176 | 0.00350 | 0.0140 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00176 | 0.00350 | 0.0140 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00176 | 0.00350 | 0.0140 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00176 | 0.00350 | 0.0140 | U |
| 91-20-3 | Naphthalene | | 0.00176 | 0.00350 | 0.0140 | U |
| 85-01-8 | Phenanthrene | | 0.00176 | 0.00350 | 0.0140 | U |
| 129-00-0 | Pyrene | | 0.00176 | 0.00350 | 0.0140 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.505 | 2.965 | 84.6 | 14 - 129 | |
| Terphenyl-d14 | 3.505 | 3.378 | 96.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-074-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-04 | File ID: | 0325704.D |
| Sampled: | 03/29/11 08:25 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/09/11 00:42 |
| Solids: | 88.39 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D05024 | Sequence: | 1D10202 | Calibration: | 1061004 |
| Instrument: | MS-BNA4 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00358 | 0.0143 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00358 | 0.0143 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00179 | 0.00358 | 0.0143 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00179 | 0.00358 | 0.0143 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00179 | 0.00358 | 0.0143 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 218-01-9 | Chrysene | | 0.00179 | 0.00358 | 0.0143 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00358 | 0.0143 | U |
| 206-44-0 | Fluoranthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 86-73-7 | Fluorene | | 0.00179 | 0.00358 | 0.0143 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00179 | 0.00358 | 0.0143 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 85-01-8 | Phenanthrene | | 0.00179 | 0.00358 | 0.0143 | U |
| 129-00-0 | Pyrene | | 0.00179 | 0.00358 | 0.0143 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.580 | 3.064 | 85.6 | 14 - 129 | |
| Terphenyl-d14 | 3.580 | 3.115 | 87.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-078-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-06 | File ID: | 0325706.D |
| Sampled: | 03/29/11 09:05 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/12/11 22:16 |
| Solids: | 93.79 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00348 | 0.0139 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00348 | 0.0139 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00348 | 0.0139 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00348 | 0.0139 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00348 | 0.0139 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00348 | 0.0139 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00348 | 0.0139 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00348 | 0.0139 | U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00348 | 0.0139 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00348 | 0.0139 | U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00348 | 0.0139 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00348 | 0.0139 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00175 | 0.00348 | 0.0139 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00348 | 0.0139 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00348 | 0.0139 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00348 | 0.0139 | U |
| 85-01-8 | Phenanthrene | | 0.00175 | 0.00348 | 0.0139 | U |
| 129-00-0 | Pyrene | | 0.00175 | 0.00348 | 0.0139 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.484 | 2.982 | 85.6 | 14 - 129 | |
| Terphenyl-d14 | 3.484 | 3.182 | 91.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-079-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-07 | File ID: | 0325707.D |
| Sampled: | 03/29/11 09:25 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/09/11 02:05 |
| Solids: | 87.61 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00189 | 0.00378 | 0.0151 | U |
| 208-96-8 | Acenaphthylene | | 0.00189 | 0.00378 | 0.0151 | U |
| 120-12-7 | Anthracene | | 0.00189 | 0.00378 | 0.0151 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00189 | 0.00378 | 0.0151 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00189 | 0.00378 | 0.0151 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00189 | 0.00378 | 0.0151 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00189 | 0.00378 | 0.0151 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00189 | 0.00378 | 0.0151 | U |
| 218-01-9 | Chrysene | | 0.00189 | 0.00378 | 0.0151 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00189 | 0.00378 | 0.0151 | U |
| 206-44-0 | Fluoranthene | | 0.00189 | 0.00378 | 0.0151 | U |
| 86-73-7 | Fluorene | | 0.00189 | 0.00378 | 0.0151 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00189 | 0.00378 | 0.0151 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00189 | 0.00378 | 0.0151 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00189 | 0.00378 | 0.0151 | U |
| 91-20-3 | Naphthalene | | 0.00189 | 0.00378 | 0.0151 | U |
| 85-01-8 | Phenanthrene | | 0.00189 | 0.00378 | 0.0151 | U |
| 129-00-0 | Pyrene | | 0.00189 | 0.00378 | 0.0151 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.779 | 3.520 | 93.1 | 14 - 129 | |
| Terphenyl-d14 | 3.779 | 3.504 | 92.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-080-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-08 | File ID: | 0325708.D |
| Sampled: | 03/29/11 09:50 | Prepared: | 04/07/11 15:36 | Analyzed: | 04/09/11 02:32 |
| Solids: | 93.59 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00172 | 0.00342 | 0.0137 | U |
| 208-96-8 | Acenaphthylene | | 0.00172 | 0.00342 | 0.0137 | U |
| 120-12-7 | Anthracene | | 0.00172 | 0.00342 | 0.0137 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00172 | 0.00342 | 0.0137 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00172 | 0.00342 | 0.0137 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00172 | 0.00342 | 0.0137 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00172 | 0.00342 | 0.0137 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00172 | 0.00342 | 0.0137 | U |
| 218-01-9 | Chrysene | | 0.00172 | 0.00342 | 0.0137 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00172 | 0.00342 | 0.0137 | U |
| 206-44-0 | Fluoranthene | | 0.00172 | 0.00342 | 0.0137 | U |
| 86-73-7 | Fluorene | | 0.00172 | 0.00342 | 0.0137 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00172 | 0.00342 | 0.0137 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00172 | 0.00342 | 0.0137 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00172 | 0.00342 | 0.0137 | U |
| 91-20-3 | Naphthalene | | 0.00172 | 0.00342 | 0.0137 | U |
| 85-01-8 | Phenanthrene | | 0.00172 | 0.00342 | 0.0137 | U |
| 129-00-0 | Pyrene | | 0.00172 | 0.00342 | 0.0137 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.425 | 3.227 | 94.2 | 14 - 129 | |
| Terphenyl-d14 | 3.425 | 3.131 | 91.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-081-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1103257-09 | File ID: | 0325709.D |
| Sampled: | 03/29/11 10:35 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 12:27 |
| Solids: | 92.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00180 | 0.00358 | 0.0143 | U |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00358 | 0.0143 | U |
| 120-12-7 | Anthracene | | 0.00180 | 0.00358 | 0.0143 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00180 | 0.00358 | 0.0143 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00180 | 0.00358 | 0.0143 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00180 | 0.00358 | 0.0143 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00180 | 0.00358 | 0.0143 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00180 | 0.00358 | 0.0143 | U |
| 218-01-9 | Chrysene | | 0.00180 | 0.00358 | 0.0143 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00180 | 0.00358 | 0.0143 | U |
| 206-44-0 | Fluoranthene | | 0.00180 | 0.00358 | 0.0143 | U |
| 86-73-7 | Fluorene | | 0.00180 | 0.00358 | 0.0143 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00180 | 0.00358 | 0.0143 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00180 | 0.00358 | 0.0143 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00180 | 0.00358 | 0.0143 | U |
| 91-20-3 | Naphthalene | | 0.00180 | 0.00358 | 0.0143 | U |
| 85-01-8 | Phenanthrene | | 0.00180 | 0.00358 | 0.0143 | U |
| 129-00-0 | Pyrene | | 0.00180 | 0.00358 | 0.0143 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.588 | 3.161 | 88.1 | 14 - 129 | |
| Terphenyl-d14 | 3.588 | 2.862 | 79.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-082-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-10 | File ID: | 0325710.D |
| Sampled: | 03/29/11 11:50 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 12:56 |
| Solids: | 90.99 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D07009 | Sequence: | 1D10409 | Calibration: | 1061004 |
| Instrument: | MS-BNA4 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00359 | 0.0143 | U |
| 120-12-7 | Anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00180 | 0.00359 | 0.0143 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 218-01-9 | Chrysene | | 0.00180 | 0.00359 | 0.0143 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 206-44-0 | Fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 86-73-7 | Fluorene | | 0.00180 | 0.00359 | 0.0143 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 91-20-3 | Naphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 85-01-8 | Phenanthrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 129-00-0 | Pyrene | | 0.00180 | 0.00359 | 0.0143 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.591 | 3.109 | 86.6 | 14 - 129 | |
| Terphenyl-d14 | 3.591 | 2.921 | 81.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-083-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-11 | File ID: | 0325711.D |
| Sampled: | 03/29/11 12:25 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 13:24 |
| Solids: | 91.99 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00178 | 0.00355 | 0.0142 | U |
| 208-96-8 | Acenaphthylene | | 0.00178 | 0.00355 | 0.0142 | U |
| 120-12-7 | Anthracene | | 0.00178 | 0.00355 | 0.0142 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00178 | 0.00355 | 0.0142 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00178 | 0.00355 | 0.0142 | U |
| 205-99-2 | Benzo(b)fluoranthene | 0.00207 | 0.00178 | 0.00355 | 0.0142 | I |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00178 | 0.00355 | 0.0142 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00178 | 0.00355 | 0.0142 | U |
| 218-01-9 | Chrysene | | 0.00178 | 0.00355 | 0.0142 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00178 | 0.00355 | 0.0142 | U |
| 206-44-0 | Fluoranthene | 0.00389 | 0.00178 | 0.00355 | 0.0142 | I |
| 86-73-7 | Fluorene | | 0.00178 | 0.00355 | 0.0142 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00178 | 0.00355 | 0.0142 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00178 | 0.00355 | 0.0142 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00178 | 0.00355 | 0.0142 | U |
| 91-20-3 | Naphthalene | | 0.00178 | 0.00355 | 0.0142 | U |
| 85-01-8 | Phenanthrene | 0.00335 | 0.00178 | 0.00355 | 0.0142 | I |
| 129-00-0 | Pyrene | 0.00282 | 0.00178 | 0.00355 | 0.0142 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.553 | 2.944 | 82.9 | 14 - 129 | |
| Terphenyl-d14 | 3.553 | 2.849 | 80.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-084-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-12 | File ID: | 0325712.D |
| Sampled: | 03/29/11 13:00 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 13:52 |
| Solids: | 91.14 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00176 | 0.00351 | 0.0140 | U |
| 208-96-8 | Acenaphthylene | | 0.00176 | 0.00351 | 0.0140 | U |
| 120-12-7 | Anthracene | | 0.00176 | 0.00351 | 0.0140 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00176 | 0.00351 | 0.0140 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00176 | 0.00351 | 0.0140 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00176 | 0.00351 | 0.0140 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00176 | 0.00351 | 0.0140 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00176 | 0.00351 | 0.0140 | U |
| 218-01-9 | Chrysene | | 0.00176 | 0.00351 | 0.0140 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00176 | 0.00351 | 0.0140 | U |
| 206-44-0 | Fluoranthene | | 0.00176 | 0.00351 | 0.0140 | U |
| 86-73-7 | Fluorene | | 0.00176 | 0.00351 | 0.0140 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00176 | 0.00351 | 0.0140 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00176 | 0.00351 | 0.0140 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00176 | 0.00351 | 0.0140 | U |
| 91-20-3 | Naphthalene | | 0.00176 | 0.00351 | 0.0140 | U |
| 85-01-8 | Phenanthrene | | 0.00176 | 0.00351 | 0.0140 | U |
| 129-00-0 | Pyrene | | 0.00176 | 0.00351 | 0.0140 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.517 | 2.681 | 76.2 | 14 - 129 | |
| Terphenyl-d14 | 3.517 | 2.564 | 72.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-085-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103257-14 | File ID: | 0325714.D |
| Sampled: | 03/29/11 14:25 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 14:20 |
| Solids: | 83.34 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00198 | 0.00394 | 0.0157 | U |
| 208-96-8 | Acenaphthylene | | 0.00198 | 0.00394 | 0.0157 | U |
| 120-12-7 | Anthracene | | 0.00198 | 0.00394 | 0.0157 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00198 | 0.00394 | 0.0157 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00198 | 0.00394 | 0.0157 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00198 | 0.00394 | 0.0157 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00198 | 0.00394 | 0.0157 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00198 | 0.00394 | 0.0157 | U |
| 218-01-9 | Chrysene | | 0.00198 | 0.00394 | 0.0157 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00198 | 0.00394 | 0.0157 | U |
| 206-44-0 | Fluoranthene | | 0.00198 | 0.00394 | 0.0157 | U |
| 86-73-7 | Fluorene | | 0.00198 | 0.00394 | 0.0157 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00198 | 0.00394 | 0.0157 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00198 | 0.00394 | 0.0157 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00198 | 0.00394 | 0.0157 | U |
| 91-20-3 | Naphthalene | | 0.00198 | 0.00394 | 0.0157 | U |
| 85-01-8 | Phenanthrene | | 0.00198 | 0.00394 | 0.0157 | U |
| 129-00-0 | Pyrene | | 0.00198 | 0.00394 | 0.0157 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.947 | 3.252 | 82.4 | 14 - 129 | |
| Terphenyl-d14 | 3.947 | 3.093 | 78.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-086-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103257-15 | File ID: | 0325715.D |
| Sampled: | 03/29/11 14:45 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 14:49 |
| Solids: | 88.77 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00187 | 0.00373 | 0.0149 | U |
| 208-96-8 | Acenaphthylene | | 0.00187 | 0.00373 | 0.0149 | U |
| 120-12-7 | Anthracene | | 0.00187 | 0.00373 | 0.0149 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00187 | 0.00373 | 0.0149 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00187 | 0.00373 | 0.0149 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00187 | 0.00373 | 0.0149 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00187 | 0.00373 | 0.0149 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00187 | 0.00373 | 0.0149 | U |
| 218-01-9 | Chrysene | | 0.00187 | 0.00373 | 0.0149 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00187 | 0.00373 | 0.0149 | U |
| 206-44-0 | Fluoranthene | | 0.00187 | 0.00373 | 0.0149 | U |
| 86-73-7 | Fluorene | | 0.00187 | 0.00373 | 0.0149 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00187 | 0.00373 | 0.0149 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00187 | 0.00373 | 0.0149 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00187 | 0.00373 | 0.0149 | U |
| 91-20-3 | Naphthalene | | 0.00187 | 0.00373 | 0.0149 | U |
| 85-01-8 | Phenanthrene | | 0.00187 | 0.00373 | 0.0149 | U |
| 129-00-0 | Pyrene | | 0.00187 | 0.00373 | 0.0149 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.730 | 3.022 | 81.0 | 14 - 129 | |
| Terphenyl-d14 | 3.730 | 2.864 | 76.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-086-0406-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103257-16 | File ID: | 0325716.D |
| Sampled: | 03/29/11 14:45 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 15:17 |
| Solids: | 89.75 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00359 | 0.0143 | U |
| 120-12-7 | Anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00180 | 0.00359 | 0.0143 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 218-01-9 | Chrysene | | 0.00180 | 0.00359 | 0.0143 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 206-44-0 | Fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 86-73-7 | Fluorene | | 0.00180 | 0.00359 | 0.0143 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 91-20-3 | Naphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 85-01-8 | Phenanthrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 129-00-0 | Pyrene | | 0.00180 | 0.00359 | 0.0143 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.594 | 2.883 | 80.2 | 14 - 129 | |
| Terphenyl-d14 | 3.594 | 2.990 | 83.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-087-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103257-17 | File ID: | 0325717.D |
| Sampled: | 03/29/11 15:15 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 15:45 |
| Solids: | 92.99 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00178 | 0.00356 | 0.0142 | U |
| 208-96-8 | Acenaphthylene | | 0.00178 | 0.00356 | 0.0142 | U |
| 120-12-7 | Anthracene | | 0.00178 | 0.00356 | 0.0142 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00178 | 0.00356 | 0.0142 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00178 | 0.00356 | 0.0142 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00178 | 0.00356 | 0.0142 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00178 | 0.00356 | 0.0142 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00178 | 0.00356 | 0.0142 | U |
| 218-01-9 | Chrysene | | 0.00178 | 0.00356 | 0.0142 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00178 | 0.00356 | 0.0142 | U |
| 206-44-0 | Fluoranthene | | 0.00178 | 0.00356 | 0.0142 | U |
| 86-73-7 | Fluorene | | 0.00178 | 0.00356 | 0.0142 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00178 | 0.00356 | 0.0142 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00178 | 0.00356 | 0.0142 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00178 | 0.00356 | 0.0142 | U |
| 91-20-3 | Naphthalene | | 0.00178 | 0.00356 | 0.0142 | U |
| 85-01-8 | Phenanthrene | | 0.00178 | 0.00356 | 0.0142 | U |
| 129-00-0 | Pyrene | | 0.00178 | 0.00356 | 0.0142 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.561 | 2.870 | 80.6 | 14 - 129 | |
| Terphenyl-d14 | 3.561 | 2.935 | 82.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-MW-084**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Ground Water | Laboratory ID: | 1103257-13 | File ID: | 034F3401.D |
| Sampled: | 03/29/11 13:40 | Prepared: | 04/01/11 11:40 | Analyzed: | 04/05/11 05:45 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1C31015 Sequence: 1D09506 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.200 | 0.400 | 0.800 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05882 | 0.05587 | 95.0 | 50 - 150 | |
| o-Terphenyl | 0.05882 | 0.04105 | 69.8 | 82 - 142 | * |

# ANALYSIS DATA SHEET

05-SS-070-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-01 | File ID: | 006F0601.D |
| Sampled: | 03/29/11 07:30 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 15:22 |
| Solids: | 93.95 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.2 | 22.4 | 44.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.390 | 2.830 | 83.5 | 50 - 150 | |
| o-Terphenyl | 3.390 | 2.112 | 62.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-073-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-03 | File ID: | 008F0801.D |
| Sampled: | 03/29/11 07:45 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 16:47 |
| Solids: | 93.72 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.1 | 22.1 | 44.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.355 | 3.080 | 91.8 | 50 - 150 | |
| o-Terphenyl | 3.355 | 2.146 | 64.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-073-0406-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-02 | File ID: | 007F0701.D |
| Sampled: | 03/29/11 07:45 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 16:04 |
| Solids: | 93.25 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.6 | 47.2 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.575 | 2.994 | 83.8 | 50 - 150 | |
| o-Terphenyl | 3.575 | 2.367 | 66.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-074-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-04 | File ID: | 009F0901.D |
| Sampled: | 03/29/11 08:25 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 17:29 |
| Solids: | 88.39 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.4 | 24.7 | 49.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.746 | 3.174 | 84.7 | 50 - 150 | |
| o-Terphenyl | 3.746 | 2.387 | 63.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-078-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-06 | File ID: | 012F1201.D |
| Sampled: | 03/29/11 09:05 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 19:37 |
| Solids: | 93.79 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.0 | 46.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.484 | 3.017 | 86.6 | 50 - 150 | |
| o-Terphenyl | 3.484 | 2.310 | 66.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-079-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-07 | File ID: | 013F1301.D |
| Sampled: | 03/29/11 09:25 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 20:19 |
| Solids: | 87.61 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D05022 | Sequence: | 1D10110 | Calibration: | 1059001 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.2 | 24.5 | 48.9 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.706 | 2.725 | 73.5 | 50 - 150 | |
| o-Terphenyl | 3.706 | 2.280 | 61.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-080-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-08 | File ID: | 014F1401.D |
| Sampled: | 03/29/11 09:50 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 21:01 |
| Solids: | 93.59 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.1 | 22.2 | 44.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.360 | 2.722 | 81.0 | 50 - 150 | |
| o-Terphenyl | 3.360 | 2.126 | 63.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-081-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-09 | File ID: | 015F1501.D |
| Sampled: | 03/29/11 10:35 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 21:44 |
| Solids: | 92.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.7 | 23.4 | 46.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.541 | 3.015 | 85.2 | 50 - 150 | |
| o-Terphenyl | 3.541 | 2.248 | 63.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-082-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-10 | File ID: | 016F1601.D |
| Sampled: | 03/29/11 11:50 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 22:26 |
| Solids: | 90.99 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.6 | 23.2 | 46.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.522 | 2.970 | 84.3 | 50 - 150 | |
| o-Terphenyl | 3.522 | 2.205 | 62.6 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-083-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-11 | File ID: | 018F1801.D |
| Sampled: | 03/29/11 12:25 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/10/11 23:51 |
| Solids: | 91.99 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.0 | 23.9 | 47.8 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.624 | 2.828 | 78.0 | 50 - 150 | |
| o-Terphenyl | 3.624 | 2.282 | 63.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-084-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1103257-12 | File ID: | 019F1901.D |
| Sampled: | 03/29/11 13:00 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/11/11 00:34 |
| Solids: | 91.14 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.609 | 3.101 | 85.9 | 50 - 150 | |
| o-Terphenyl | 3.609 | 2.284 | 63.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-085-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103257-14 | File ID: | 020F2001.D |
| Sampled: | 03/29/11 14:25 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/11/11 01:16 |
| Solids: | 83.34 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.5 | 24.9 | 49.8 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.773 | 2.719 | 72.1 | 50 - 150 | |
| o-Terphenyl | 3.773 | 2.187 | 58.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-086-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103257-15 | File ID: | 021F2101.D |
| Sampled: | 03/29/11 14:45 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/11/11 01:59 |
| Solids: | 88.77 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.1 | 24.3 | 48.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.681 | 2.453 | 66.6 | 50 - 150 | |
| o-Terphenyl | 3.681 | 1.860 | 50.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-086-0406-D

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | Laboratory ID: | 1103257-16 | File ID: | 022F2201.D |
| Sampled: | 03/29/11 14:45 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/11/11 02:41 |
| Solids: | 89.75 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.0 | 24.0 | 48.1 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.641 | 2.185 | 60.0 | 50 - 150 | |
| o-Terphenyl | 3.641 | 1.840 | 50.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-087-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Solid | Laboratory ID: | 1103257-17 | File ID: | 031F3101.D |
| Sampled: | 03/29/11 15:15 | Prepared: | 04/13/11 13:18 | Analyzed: | 04/15/11 06:56 |
| Solids: | 92.99 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D13012 Sequence: 1D10517 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.9 | 45.8 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.469 | 2.808 | 81.0 | 50 - 150 | |
| o-Terphenyl | 3.469 | 2.585 | 74.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-MW-084**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1103257-13 |
| Sampled: | 03/29/11 13:40 | Received: | 03/30/11 08:30 |
| % Solids: | 0.00 | | |

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 68.4 | 7.50 | 15.0 | 15.0 | 5 | D | SW6010C | 1D06001 | 04/07/11 12:45 |

# APPENDIX C

## SUPPORT DOCUMENTATION

SDG CTOJM26_004

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/06/2011 | 04/07/2011 | 8 | 1 | 9 |
| M | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 04/06/2011 | 04/07/2011 | 9 | 1 | 10 |
| EDB | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 04/06/2011 | 04/06/2011 | 9 | 0 | 9 |
| EDB | UG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/06/2011 | 04/07/2011 | 8 | 1 | 9 |
| OV | MG/KG | 05-SS-084-0406 | 1103257-12 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-073-0406-D | 1103257-02 | NM | 03/29/2011 | 04/04/2011 | 04/05/2011 | 6 | 1 | 7 |
| OV | MG/KG | 05-SS-074-0406 | 1103257-04RE1 | NM | 03/29/2011 | 04/06/2011 | 04/06/2011 | 8 | 0 | 8 |
| OV | MG/KG | 05-SS-078-0406 | 1103257-06 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-079-0406 | 1103257-07 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-080-0406 | 1103257-08RE1 | NM | 03/29/2011 | 04/06/2011 | 04/06/2011 | 8 | 0 | 8 |
| OV | MG/KG | 05-SS-081-0406 | 1103257-09 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-073-0406 | 1103257-03 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-083-0406 | 1103257-11 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-086-0406-D | 1103257-16 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-085-0406 | 1103257-14 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | MG/KG | 05-SS-086-0406 | 1103257-15 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-087-0406 | 1103257-17 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-082-0406 | 1103257-10 | NM | 03/29/2011 | 04/05/2011 | 04/05/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-033-0204 | 1103237-08 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-070-0406 | 1103257-01 | NM | 03/29/2011 | 04/04/2011 | 04/05/2011 | 6 | 1 | 7 |
| OV | MG/KG | 05-SS-027-0204 | 1103237-01RE1 | NM | 03/28/2011 | 04/04/2011 | 04/04/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-028-0204 | 1103237-02RE1 | NM | 03/28/2011 | 04/04/2011 | 04/04/2011 | 7 | 0 | 7 |
| OV | MG/KG | 05-SS-030-1520 | 1103237-03 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-030-1520-D | 1103237-04 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-032-0204 | 1103237-07 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-034-0204 | 1103237-09 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-035-0204 | 1103237-10 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-036-0204 | 1103237-11 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-066-0406 | 1103237-12 | NM | 03/28/2011 | 04/01/2011 | 04/02/2011 | 4 | 1 | 5 |
| OV | MG/KG | 05-SS-068-0406 | 1103237-13 | NM | 03/28/2011 | 04/01/2011 | 04/02/2011 | 4 | 1 | 5 |
| OV | MG/KG | 05-SS-069-0406 | 1103237-14 | NM | 03/28/2011 | 04/01/2011 | 04/02/2011 | 4 | 1 | 5 |
| OV | MG/KG | 05-SS-031-0204 | 1103237-05 | NM | 03/28/2011 | 04/01/2011 | 04/01/2011 | 4 | 0 | 4 |
| OV | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 03/31/2011 | 03/31/2011 | 3 | 0 | 3 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | UG/L | TRIPBLANK 9489 | 1103237-16 | NM | 03/28/2011 | 03/31/2011 | 03/31/2011 | 3 | 0 | 3 |
| OV | UG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/01/2011 | 04/01/2011 | 3 | 0 | 3 |
| OV | UG/L | TRIP BLANK 9486 | 1103257-05 | NM | 03/29/2011 | 04/01/2011 | 04/01/2011 | 3 | 0 | 3 |
| OV | UG/L | TRIPBLANK 9488 | 1103237-06 | NM | 03/28/2011 | 03/31/2011 | 03/31/2011 | 3 | 0 | 3 |
| SIM | MG/KG | 05-SS-033-0204 | 1103237-08 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-068-0406 | 1103237-13 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-068-0406 | 1103237-13 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-028-0204 | 1103237-02 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-066-0406 | 1103237-12 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-069-0406 | 1103237-14 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-066-0406 | 1103237-12 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-036-0204 | 1103237-11 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-036-0204 | 1103237-11 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-035-0204 | 1103237-10 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-035-0204 | 1103237-10 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-034-0204 | 1103237-09 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-034-0204 | 1103237-09 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-033-0204 | 1103237-08 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-032-0204 | 1103237-07 | SUR | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-032-0204 | 1103237-07 | NM | 03/28/2011 | 04/07/2011 | 04/12/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-031-0204 | 1103237-05 | SUR | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-031-0204 | 1103237-05 | NM | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-030-1520-D | 1103237-04 | SUR | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-030-1520-D | 1103237-04 | NM | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-030-1520 | 1103237-03 | SUR | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-028-0204 | 1103237-02 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-027-0204 | 1103237-01 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-027-0204 | 1103237-01 | NM | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-070-0406 | 1103257-01 | SUR | 03/29/2011 | 04/07/2011 | 04/08/2011 | 9 | 1 | 10 |
| SIM | MG/KG | 05-SS-030-1520 | 1103237-03 | NM | 03/28/2011 | 04/07/2011 | 04/09/2011 | 10 | 2 | 12 |
| SIM | MG/KG | 05-SS-081-0406 | 1103257-09 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-087-0406 | 1103257-17 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-087-0406 | 1103257-17 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-086-0406-D | 1103257-16 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-086-0406-D | 1103257-16 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-086-0406 | 1103257-15 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-086-0406 | 1103257-15 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-085-0406 | 1103257-14 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-085-0406 | 1103257-14 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-084-0406 | 1103257-12 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-084-0406 | 1103257-12 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-083-0406 | 1103257-11 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-083-0406 | 1103257-11 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-070-0406 | 1103257-01 | NM | 03/29/2011 | 04/07/2011 | 04/08/2011 | 9 | 1 | 10 |
| SIM | MG/KG | 05-SS-082-0406 | 1103257-10 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-078-0406 | 1103257-06 | NM | 03/29/2011 | 04/07/2011 | 04/12/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-069-0406 | 1103237-14 | SUR | 03/28/2011 | 04/07/2011 | 04/08/2011 | 10 | 1 | 11 |
| SIM | MG/KG | 05-SS-073-0406 | 1103257-03 | NM | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-073-0406 | 1103257-03 | SUR | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-073-0406-D | 1103257-02 | NM | 03/29/2011 | 04/07/2011 | 04/08/2011 | 9 | 1 | 10 |
| SIM | MG/KG | 05-SS-073-0406-D | 1103257-02 | SUR | 03/29/2011 | 04/07/2011 | 04/08/2011 | 9 | 1 | 10 |
| SIM | MG/KG | 05-SS-082-0406 | 1103257-10 | SUR | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-074-0406 | 1103257-04 | SUR | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-078-0406 | 1103257-06 | SUR | 03/29/2011 | 04/07/2011 | 04/12/2011 | 9 | 5 | 14 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-079-0406 | 1103257-07 | NM | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-079-0406 | 1103257-07 | SUR | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-080-0406 | 1103257-08 | NM | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-080-0406 | 1103257-08 | SUR | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | MG/KG | 05-SS-081-0406 | 1103257-09 | NM | 03/29/2011 | 04/08/2011 | 04/12/2011 | 10 | 4 | 14 |
| SIM | MG/KG | 05-SS-074-0406 | 1103257-04 | NM | 03/29/2011 | 04/07/2011 | 04/09/2011 | 9 | 2 | 11 |
| SIM | UG/L | 05-MW-084 | 1103257-13 | SUR | 03/29/2011 | 04/01/2011 | 04/04/2011 | 3 | 3 | 6 |
| SIM | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 04/01/2011 | 04/04/2011 | 4 | 3 | 7 |
| SIM | UG/L | EQUIPMENT BLANK 02 | 1103237-15 | SUR | 03/28/2011 | 04/01/2011 | 04/04/2011 | 4 | 3 | 7 |
| SIM | UG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/01/2011 | 04/04/2011 | 3 | 3 | 6 |
| TPH | MG/KG | 05-SS-082-0406 | 1103257-10 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-073-0406 | 1103257-03 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-074-0406 | 1103257-04 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-078-0406 | 1103257-06 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-079-0406 | 1103257-07 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-081-0406 | 1103257-09 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-070-0406 | 1103257-01 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-083-0406 | 1103257-11 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-084-0406 | 1103257-12 | NM | 03/29/2011 | 04/08/2011 | 04/11/2011 | 10 | 3 | 13 |
| TPH | MG/KG | 05-SS-085-0406 | 1103257-14 | NM | 03/29/2011 | 04/08/2011 | 04/11/2011 | 10 | 3 | 13 |
| TPH | MG/KG | 05-SS-086-0406 | 1103257-15 | NM | 03/29/2011 | 04/08/2011 | 04/11/2011 | 10 | 3 | 13 |
| TPH | MG/KG | 05-SS-086-0406-D | 1103257-16 | NM | 03/29/2011 | 04/08/2011 | 04/11/2011 | 10 | 3 | 13 |
| TPH | MG/KG | 05-SS-087-0406 | 1103257-17 | NM | 03/29/2011 | 04/13/2011 | 04/15/2011 | 15 | 2 | 17 |
| TPH | MG/KG | 05-SS-080-0406 | 1103257-08 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-032-0204 | 1103237-07 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-027-0204 | 1103237-01 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-028-0204 | 1103237-02 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-030-1520 | 1103237-03 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-073-0406-D | 1103257-02 | NM | 03/29/2011 | 04/08/2011 | 04/10/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-031-0204 | 1103237-05 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-069-0406 | 1103237-14 | NM | 03/28/2011 | 04/08/2011 | 04/10/2011 | 11 | 2 | 13 |
| TPH | MG/KG | 05-SS-033-0204 | 1103237-08 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-034-0204 | 1103237-09 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-035-0204 | 1103237-10 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-036-0204 | 1103237-11 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-066-0406 | 1103237-12 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-068-0406 | 1103237-13 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/KG | 05-SS-030-1520-D | 1103237-04 | NM | 03/28/2011 | 04/06/2011 | 04/08/2011 | 9 | 2 | 11 |
| TPH | MG/L | EQUIPMENT BLANK 02 | 1103237-15 | NM | 03/28/2011 | 04/01/2011 | 04/05/2011 | 4 | 4 | 8 |
| TPH | MG/L | 05-MW-084 | 1103257-13 | NM | 03/29/2011 | 04/01/2011 | 04/05/2011 | 3 | 4 | 7 |

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 2781 PAGE 1 OF 2

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Sawtley Field | PROJECT MANAGER: Geoff Pope | PHONE NUMBER: 850 388 4899 | LABORATORY NAME AND CONTACT: Empirical Lab Brian Richard |
| SAMPLERS (SIGNATURE): M Brock | | FIELD OPERATIONS LEADER: M. Brock | PHONE NUMBER: 850-294-2830 | ADDRESS: 6621 Mainstream STE 270 |
| | | CARRIER/WAYBILL NUMBER: 8684 85094 5585 | | CITY, STATE: Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG AG AG
PRESERVATIVE USED: MeOH H2O ice ice

| | DATE YEAR 2011 | 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 | BTEX (Soil) | MT BE (Soil) | PAH (Soil) | TRPH (Soil) | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -01 | 3/29 | 0730 | 05-SS-070-0406 | SB070 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | 1M+3JO |
| -02 | | 0745 | 05-SS-073-0406-D | SB073 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -03 | | 0745 | 05-SS-073-0406 | SB073 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -04 | | 0825 | 05-SS-074-0406-MS | SB074 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| | | 0825 | 05-SS-074-0406-MSD | SB074 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| | | 0825 | 05-SS-074-0406 | SB074 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -05 | | — | Trip Blank 94486 | — | — | — | QC | G | 2 | ✓ | — | — | | | | | | 2JHG |
| -06 | | 0905 | 05-SS-078-0406 | SB078 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | 1M+3JO |
| -07 | | 0925 | 05-SS-079-0406 | SB079 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -08 | | 0950 | 05-SS-080-0406 | SB080 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -09 | | 1035 | 05-SS-081-0406 | SB081 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -10 | | 1150 | 05-SS-082-0406 | SB082 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -11 | | 1225 | 05-SS-083-0406 | SB083 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | DATE 3-29-11 | TIME 1700 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY 3.5°C | DATE 3-30-11 | TIME 08:50 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

CTOJM26_004 Summ Package

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 2780 PAGE 2 OF 2

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Saufley Field | Geoff Pope | 850-385-9899 | Empirical, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| MBrock | | M. Brock | 850-294-2830 | 601 Mainstream Ste 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 8684 5094 5585 | | Nashville TN 37228 |

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

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

PRESERVATIVE USED: MeOH H2O, ice, ice, HCl, HCl, ice, HCl, HNO3

TYPE OF ANALYSIS

| | DATE YEAR 2011 | 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 | BTEX, MTBE (soil) | PAH (soil) | TRPH (soil) | VOCs (H2O) | EDB (H2O) | PAH (H2O) | TRPH (H2O) | Total Pb (H2O) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 3/29 | 1300 | 05-SS-084-0406 | SB084 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | 1mg 5JO |
| 13 | | 1340 | 05-MW-084 | SB084 | tubing @ 50 | | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | ✓ | ✓ | 4JAgH(CNT+2H+2HA) |
| -14 | | 1425 | 05-SS-085-0406 | SB085 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | 1mg 5JO |
| -15 | | 1445 | 05-SS-086-0406 | SB086 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| -16 | | 1445 | 05-SS-086-0406-D | SB086 | 4 | 6 | QC | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| -17 | | 1515 | 05-SS-087-0406 | SB087 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| | | | | | | | | | | | | | | | | | | temp blanks in 2 coolers |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY: MBrock | 3.29.11 | 1700 | 1. RECEIVED BY | | |
| 2. RELINQUISHED BY | | | 2. RECEIVED BY | | |
| 3. RELINQUISHED BY | | | 3. RECEIVED BY: 3.52 | 3-30-11 | 08:30 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103257 Number of Coolers: 1 of 2

Client: Tetra Tech NUS Project: Surfkey Fields

Date/Time Received: 3.30.11 0830 Date cooler(s) opened: 3.30.11

Opened By (print): Reginald Talley (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: 4158

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 3.29.11 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: Initial Value: 3.5 °C Correction Factor: -0.3 °C Final Value: 3.5 °C

Dates samples were logged-in: 3-30-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [initials]
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

If Non-Conformance issues were present, list by sample ID: _____

pH <2 for all metals & PLPRO samples

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1103257 Number of Coolers: 2 of 2

Client: Tetra Tech NUS Project: Sanfley Fields

Date/Time Received: 3.30.11 0830 Date cooler(s) opened: 3.30.11

Opened By (print): Reginald Talley (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: 5585

2. Were custody seals on outside of cooler(s)? ...RT. 3.30 ..... Yes No

How many: 2 Seal date: ~~[illegible]~~ 3.29.11 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: Initial Value: 2.8 °C Correction Factor: -0.3 °C Final Value: 2.5 °C

Dates samples were logged-in: 3-30-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: _____

WORK ORDER

1103257

Printed: 4/19/2011 1:51:22PM

# Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTO JM26 Saufley

**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

**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
661 Andersen Drive
Pittsburgh, PA 15220-2745
Phone :(412) 921-8182
Fax: (412) 921-4040

Date Due: 04/18/2011 16:00 (13 day TAT)
Received By: Chris Donald
Logged In By: Chris Donald

Date Received: 03/30/2011 08:30
Date Logged In 03/30/2011 17:10

Samples Received at: 3.5°C
Custody Seals Yes Received On Ice Yes
Containers Intact Yes
COC/Labels Agree Yes
Preservation Confir Yes

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103257-01 05-SS-070-0406 [Solid] Sampled 03/29/2011 07:30 Eastern** | | | | | **AP VIALS** |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 06:30 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 06:30 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 06:30 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 06:30 | | |
| **1103257-02 05-SS-073-0406-D [Solid] Sampled 03/29/2011 07:45 Eastern** | | | | | **AP VIALS** |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 06:45 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 06:45 | | |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 06:45 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 06:45 | | |

WORK ORDER

1103257

Printed: 4/19/2011 1:51:22PM

# Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley

Project Manager: Brian Richard
Project Number: TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103257-03 05-SS-073-0406 [Solid] Sampled 03/29/2011 07:45 Eastern** | | | | | **AP VIALS** |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 06:45 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 06:45 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 06:45 | | |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 06:45 | | |
| **1103257-04 05-SS-074-0406 [Solid] Sampled 03/29/2011 08:25 Eastern** | | | | | **AP VIALS, MS/MSD** |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 07:25 | | , MS/MSD |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 07:25 | | freeze soil. +1,3-dichloropropene, AP VIALS, MS/MSD |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 07:25 | | , MS/MSD |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 07:25 | | , MS/MSD |
| **1103257-05 TRIP BLANK 9486 [Water] Sampled 03/29/2011 00:00 Central** | | | | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 00:00 | | freeze soil. +1,3-dichloropropene |
| **1103257-06 05-SS-078-0406 [Solid] Sampled 03/29/2011 09:05 Eastern** | | | | | **AP VIALS** |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 08:05 | | |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 08:05 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 08:05 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 08:05 | | |
| **1103257-07 05-SS-079-0406 [Solid] Sampled 03/29/2011 09:25 Eastern** | | | | | **AP VIALS** |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 08:25 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 08:25 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 08:25 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 08:25 | | |

WORK ORDER

1103257

Printed: 4/19/2011 1:51:22PM

# Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley

Project Manager: Brian Richard
Project Number: TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103257-08 05-SS-080-0406 [Solid] Sampled 03/29/2011 09:50 Eastern** | | | | | **AP VIALS** |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 08:50 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 08:50 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 08:50 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 08:50 | | |
| **1103257-09 05-SS-081-0406 [Solid] Sampled 03/29/2011 10:35 Eastern** | | | | | **AP VIALS** |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 09:35 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 09:35 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 09:35 | | |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 09:35 | | |
| **1103257-10 05-SS-082-0406 [Solid] Sampled 03/29/2011 11:50 Eastern** | | | | | **AP VIALS** |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 10:50 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 10:50 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 10:50 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 10:50 | | |
| **1103257-11 05-SS-083-0406 [Solid] Sampled 03/29/2011 12:25 Eastern** | | | | | **AP VIALS** |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 11:25 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 11:25 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 11:25 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 11:25 | | |

WORK ORDER

1103257

Printed: 4/19/2011 1:51:22PM

## Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley

Project Manager: Brian Richard
Project Number: TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103257-12 05-SS-084-0406 [Solid] Sampled 03/29/2011 13:00 Eastern** | | | | | **AP VIALS** |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 12:00 | | |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 12:00 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 12:00 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 12:00 | | |
| **1103257-13 05-MW-084 [Water] Sampled 03/29/2011 13:40 Eastern** | | | | | |
| SW6010C | 04/15/2011 14:00 | 13 | 09/25/2011 12:40 | | Pb only MS/Dup |
| SW8011 | 04/15/2011 14:00 | 13 | 04/12/2011 12:40 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/05/2011 12:40 | | |
| SW8270C | 04/15/2011 14:00 | 13 | 04/05/2011 12:40 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 12:40 | | freeze soil. +1,3-dichloropropene |
| **1103257-14 05-SS-085-0406 [Solid] Sampled 03/29/2011 14:25 Eastern** | | | | | **AP VIALS** |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 13:25 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 13:25 | | |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 13:25 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 13:25 | | |
| **1103257-15 05-SS-086-0406 [Solid] Sampled 03/29/2011 14:45 Eastern** | | | | | **AP VIALS** |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 13:45 | | |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 13:45 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 13:45 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 13:45 | | |

WORK ORDER

1103257

Printed: 4/19/2011 1:51:22PM

# Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley

Project Manager: Brian Richard
Project Number: TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1103257-16 05-SS-086-0406-D [Solid] Sampled 03/29/2011 14:45 Eastern** | | | | | **AP VIALS** |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 13:45 | | |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 13:45 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 13:45 | | freeze soil. +1,3-dichloropropene, AP VIALS |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 13:45 | | |
| **1103257-17 05-SS-087-0406 [Solid] Sampled 03/29/2011 15:15 Eastern** | | | | | **AP VIALS** |
| SM2540B | 04/15/2011 14:00 | 13 | 04/05/2011 14:15 | | |
| FLPRO | 04/15/2011 14:00 | 13 | 04/12/2011 14:15 | | |
| SW8270C | 04/15/2011 14:00 | 13 | 04/12/2011 14:15 | | |
| SW8260B | 04/15/2011 14:00 | 13 | 04/12/2011 14:15 | | freeze soil. +1,3-dichloropropene, AP VIALS |

## Sample Delivery Group Assignment Form

CLIENT: Tetra Tech NUS, Inc. (T010)
PROJECT NAME: NAS Pensacola CTO JM26 Saufley
SDG #: CTOJM26_004
MATRIX: Solid

QC LEVEL: Level IV
Report Due: 4/18/2011
Client Sample Count: 16

| Sample Type | Sampled | Received | Lab ID | Client ID | FLPRO | SM2540B | SW6010C | SW8011 | SW8260B | SW8270C |
|---|---|---|---|---|---|---|---|---|---|---|
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-01 | 05-SS-070-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-02 | 05-SS-073-0406-D | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-03 | 05-SS-073-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-04 | 05-SS-074-0406 | AP VIALS, MS/MSD | AP VIALS, MS/MSD | | | AP VIALS, MS/MSD | AP VIALS, MS/MSD |
| Trip Blank | 3/29/2011 | 3/30/2011 | 1103257-05 | TRIP BLANK 9486 | | | | | X | |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-06 | 05-SS-078-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-07 | 05-SS-079-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-08 | 05-SS-080-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-09 | 05-SS-081-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-10 | 05-SS-082-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-11 | 05-SS-083-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-12 | 05-SS-084-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-13 | 05-MW-084 | X | | X | X | X | X |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-14 | 05-SS-085-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-15 | 05-SS-086-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-16 | 05-SS-086-0406-D | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |
| Client Sample | 3/29/2011 | 3/30/2011 | 1103257-17 | 05-SS-087-0406 | AP VIALS | AP VIALS | | | AP VIALS | AP VIALS |

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
Revision 01: The package was revised to change the SW8260B for samples 1103257-05 and -13 and to revise the SW8260B portion of this narrative. The following forms were replaced: Analysis Data Sheet, LCS/LCS Duplicate Recovery, Initial Calibration Verification, and Continuing Calibration Verification.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
The matrix spikes associated to sample 1103257-04RE1 exceeded relative percent difference for all compounds due to the difference in weights of the matrix spike and matrix spike duplicate. The relative percent difference is calculated by the concentration recovered rather than the % recovery. If calculated from the % recovery, all relative percent differences would be within criteria.

The batch spike associated to batch 1D01013 exceeded criteria with a positive bias for Chloromethane. The batch spike duplicate 1D05004-BSD1 was analyzed 21 hours 15 minutes after the associated tune standard due to an instrument malfunction. The instrument was restarted when the problem was found with the ending batch spike duplicate. All recoveries were within criteria.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8270C:**
The surrogate Terphenyl-d14 exceeded criteria with a negative bias in sample 1103257-13.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
The surrogate o-Terphenyl exceeded criteria with a negative bias in 1C31015-BLK1 and 1103257-13. The surrogates o-Terphenyl and 2-Fluorobiphenyl exceeded the retention time window in 1D05022-BLK1 and 1103257-01, -02, -03, -04, -06, -07, -08, -09, -10, -11, -12, -14, -15, and -16. The result bias due to the retention time shift was determined to be negligible for all affected samples and QC.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8011:**
No anomalies or deviations are noted.

**SW6010C:**
No anomalies or deviations are noted.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

## Analytical Report Terms and Qualifiers

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.1 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.1 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.1 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*****: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE**" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

# Data for SW8260B Forms

VOC

# HOLDING TIME SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-070-0406 | 03/29/11 07:30 | 03/30/11 08:30 | 04/04/11 00:00 | N/A | 14.00 | 04/05/11 03:34 | 6.88 | 14.00 | |
| 05-SS-073-0406-D | 03/29/11 07:45 | 03/30/11 08:30 | 04/04/11 00:00 | N/A | 14.00 | 04/05/11 03:59 | 6.88 | 14.00 | |
| 05-SS-073-0406 | 03/29/11 07:45 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 11:55 | 7.22 | 14.00 | |
| 05-SS-074-0406 | 03/29/11 08:25 | 03/30/11 08:30 | 04/06/11 00:00 | N/A | 14.00 | 04/06/11 10:35 | 8.13 | 14.00 | |
| TRIP BLANK 9486 | 03/29/11 00:00 | 03/30/11 08:30 | 04/01/11 11:49 | N/A | 14.00 | 04/01/11 20:47 | 3.87 | 14.00 | |
| 05-SS-078-0406 | 03/29/11 09:05 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 12:43 | 7.19 | 14.00 | |
| 05-SS-079-0406 | 03/29/11 09:25 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 13:08 | 7.20 | 14.00 | |
| 05-SS-080-0406 | 03/29/11 09:50 | 03/30/11 08:30 | 04/06/11 00:00 | N/A | 14.00 | 04/06/11 11:00 | 8.09 | 14.00 | |
| 05-SS-081-0406 | 03/29/11 10:35 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 13:56 | 7.18 | 14.00 | |
| 05-SS-082-0406 | 03/29/11 11:50 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 14:21 | 7.15 | 14.00 | |
| 05-SS-083-0406 | 03/29/11 12:25 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 14:45 | 7.14 | 14.00 | |
| 05-SS-084-0406 | 03/29/11 13:00 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 15:10 | 7.13 | 14.00 | |
| 05-MW-084 | 03/29/11 13:40 | 03/30/11 08:30 | 04/01/11 11:49 | N/A | 14.00 | 04/01/11 21:47 | 3.38 | 14.00 | |
| 05-SS-085-0406 | 03/29/11 14:25 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 15:34 | 7.09 | 14.00 | |
| 05-SS-086-0406 | 03/29/11 14:45 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 15:58 | 7.09 | 14.00 | |
| 05-SS-086-0406-D | 03/29/11 14:45 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 16:22 | 7.11 | 14.00 | |
| 05-SS-087-0406 | 03/29/11 15:15 | 03/30/11 08:30 | 04/05/11 00:00 | N/A | 14.00 | 04/05/11 16:47 | 7.11 | 14.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Sequence: 1C07710

Calibration: 1078001

SDG: CTOJM26_004

Project: NAS Pensacola CTO JM26 Saufley

Instrument: MS-VOA5

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C07710-TUN1 | 0307TU1.D | 03/07/11 12:22 |
| Cal Standard | 1C07710-CAL1 | 0307CAL1.D | 03/07/11 12:53 |
| Cal Standard | 1C07710-CAL2 | 0307CAL2.D | 03/07/11 13:23 |
| Cal Standard | 1C07710-CAL3 | 0307CAL3.D | 03/07/11 13:53 |
| Cal Standard | 1C07710-CAL4 | 0307CAL4.D | 03/07/11 14:23 |
| Cal Standard | 1C07710-CAL5 | 0307CAL5.D | 03/07/11 14:54 |
| Cal Standard | 1C07710-CAL6 | 0307CAL6.D | 03/07/11 15:24 |
| Cal Standard | 1C07710-CAL7 | 0307CAL7.D | 03/07/11 15:54 |
| Cal Standard | 1C07710-CAL8 | 0307CAL8.D | 03/07/11 16:24 |
| Cal Standard | 1C07710-CAL9 | 0307CAL9.D | 03/07/11 16:54 |
| Initial Cal Check | 1C07710-ICV1 | 0307ICV1.D | 03/07/11 17:25 |
| Initial Cal Check | 1C07710-ICV2 | 0307ICV2.D | 03/07/11 17:55 |
| MS Tune | 1C07710-TUN2 | 0317TU2.D | 03/17/11 18:43 |
| Cal Standard | 1C07710-CALB | 0317CAL2.D | 03/17/11 19:13 |
| Cal Standard | 1C07710-CALC | 0317CAL3.D | 03/17/11 20:14 |
| Cal Standard | 1C07710-CALD | 0317CAL4.D | 03/17/11 20:44 |
| Cal Standard | 1C07710-CALE | 0317CAL5.D | 03/17/11 21:14 |
| Cal Standard | 1C07710-CALF | 0317CAL6.D | 03/17/11 21:44 |
| Cal Standard | 1C07710-CALG | 0317CAL7.D | 03/17/11 22:14 |
| Cal Standard | 1C07710-CALH | 0317CAL8.D | 03/17/11 22:44 |
| Cal Standard | 1C07710-CALI | 0317CAL9.D | 03/17/11 23:15 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0307TU1.D | Injection Date: | 03/07/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 12:22 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 29.7 | PASS |
| 75 | 30 - 60% of 95 | 59.7 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.36 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 73.4 | PASS |
| 175 | 5 - 9% of 174 | 8.34 | PASS |
| 176 | 95 - 101% of 174 | 99.3 | PASS |
| 177 | 5 - 9% of 176 | 6.54 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TU2.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 18:43 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.7 | PASS |
| 75 | 30 - 60% of 95 | 50.9 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.95 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 97.6 | PASS |
| 175 | 5 - 9% of 174 | 8.17 | PASS |
| 176 | 95 - 101% of 174 | 96.9 | PASS |
| 177 | 5 - 9% of 176 | 5.26 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1078001

Instrument: ~~MS-VOA5~~

Matrix: Water

Calibration Dates: 3/7/11 12:53 3/17/11 23:15

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.1125867 | 7.775212 | 6.244286 | 0.1071381 | | | 15 | |
| Acrolein | 4.283427E-02 | 12.92662 | 6.061 | 9.119184E-02 | | | 15 | |
| Acrylonitrile | 7.491512E-02 | 13.92187 | 7.023556 | 3.951867E-02 | | | 15 | |
| Benzene | 0.7397262 | 7.773478 | 12.87444 | 3.353187E-02 | | | 15 | |
| Bromobenzene | 0.5955634 | 7.196348 | 17.832 | 2.354569E-02 | | | 15 | |
| Bromochloromethane | 0.1240907 | 7.549579 | 10.87744 | 7.156777E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7406833 | 20.99942 | 13.17687 | 5.183132E-02 | 0.9999422 | | 0.995 | |
| Bromodichloromethane | 0.393441 | 7.099255 | 13.80056 | 3.837247E-02 | | | 15 | |
| Bromoform | 0.3892677 | 8.488098 | 17.10711 | 1.904145E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2262604 | 13.09668 | 5.114 | 0.1004568 | | | 15 | |
| Bromofluorobenzene | 0.864999 | 4.547677 | 17.648 | 1.998807E-02 | | | 15 | |
| n-Butylbenzene | 1.378201 | 11.49175 | 19.04511 | 1.294924E-02 | | | 15 | |
| 2-Butanone | 0.1018668 | 27.92435 | 10.211 | 0.2192854 | 0.9987152 | | 0.995 | |
| sec-Butylbenzene | 1.844833 | 8.220999 | 18.57544 | 1.160729E-02 | | | 15 | |
| tert-Butylbenzene | 1.620182 | 6.67833 | 18.70456 | 1.990774E-02 | | | 15 | |
| Carbon disulfide | 0.6346432 | 9.888999 | 7.626889 | 8.141692E-02 | | | 15 | |
| Carbon tetrachloride | 0.3803403 | 6.452072 | 12.83711 | 3.700651E-02 | | | 15 | |
| Chlorobenzene | 1.095895 | 8.347511 | 16.69756 | 2.251491E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.1608279 | 8.222484 | 5.294667 | 9.353293E-02 | | | 15 | |
| Chloroform | 0.5084763 | 6.591338 | 10.98578 | 4.276434E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1134227 | 26.69582 | 14.347 | 3.374881E-02 | 0.9997447 | | 0.995 | |
| Chloromethane | 0.2980831 | 6.289672 | 4.365 | 0.188516 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.006089 | 7.388747 | 16.64067 | 2.133492E-02 | | | 15 | |
| 2-Chlorotoluene | 1.523137 | 5.306558 | 18.04867 | 2.098941E-02 | | | 15 | |
| 4-Chlorotoluene | 1.587775 | 9.227864 | 18.10889 | 1.213713E-02 | | | 15 | |
| Cyclohexane | 0.2775874 | 17.23492 | 12.74089 | 2.177786E-02 | 0.9997448 | | 0.995 | |
| Dibromochloromethane | 0.5274875 | 8.943849 | 15.70911 | 2.530325E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1119632 | 25.2941 | 19.43156 | 3.067344E-02 | 0.9986619 | | 0.995 | |
| 1,2-Dibromoethane (EDB) | 0.4534325 | 6.873208 | 15.93667 | 2.316429E-02 | | | 15 | |
| Dibromomethane | 0.1896182 | 11.46889 | 13.63856 | 2.978158E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 0.9705237 | 8.407707 | 19.03511 | 2.694366E-03 | | | 15 | |
| 1,3-Dichlorobenzene | 1.080832 | 6.190879 | 18.67178 | 1.189958E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1078001 | Instrument: | MS-VOA5 | |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 | 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.153474 | 6.60659 | 18.72089 | 8.928354E-03 | | | 15 | |
| Dichlorodifluoromethane | 0.312813 | 10.72439 | 4.119 | 9.264489E-02 | | | 15 | |
| 1,1-Dichloroethane | 0.4332253 | 8.462878 | 9.104889 | 6.797151E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.4958155 | 6.096188 | 12.131 | 3.325407E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.1779832 | 11.23937 | 6.967667 | 0.1020339 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2226177 | 11.77531 | 10.56189 | 0.0539483 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2077027 | 10.73761 | 8.525556 | 6.283411E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2151602 | 10.90176 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2138675 | 12.72516 | 13.69356 | 2.877113E-02 | 0.9994699 | | CCC (20) | |
| 1,3-Dichloropropane | 0.7045052 | 7.35678 | 15.46267 | 3.084139E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.387605 | 6.483752 | 11.15322 | 4.720791E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.3169346 | 12.22384 | 12.60622 | 4.157777E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3942719 | 12.15062 | 14.59088 | 1.900144E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.6325373 | 15.33703 | 15.05978 | 2.420188E-02 | 0.996921 | | 0.995 | |
| Diisopropyl Ether | 0.7397891 | 20.08696 | 10.34763 | 4.918967E-02 | 0.9988929 | | 0.995 | |
| Ethylbenzene | 1.744482 | 8.836318 | 16.84989 | 7.809333E-03 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.6852749 | 17.62275 | 11.194 | 5.283168E-02 | 0.9997283 | | 0.995 | |
| Ethyl Methacrylate | 0.4920032 | 19.18719 | 15.50875 | 1.084665E-02 | 0.9984347 | | 0.995 | |
| Hexachlorobutadiene | 0.3208413 | 8.710181 | 21.0895 | 1.924166E-02 | | | 15 | |
| 2-Hexanone | 0.28784 | 36.32521 | 15.62175 | 0.0320628 | 0.9989233 | | 0.995 | |
| Iodomethane | 0.3171042 | 26.94596 | 7.022444 | 9.520778E-02 | 0.9998641 | | 0.995 | |
| Isopropylbenzene | 1.42457 | 9.248017 | 17.611 | 1.726366E-02 | | | 15 | |
| p-Isopropyltoluene | 1.23658 | 14.38435 | 18.40356 | 2.441437E-02 | | | 15 | |
| Methylene chloride | 0.2446354 | 7.987041 | 7.210778 | 6.620158E-02 | | | 15 | |
| Methyl Acetate | 0.2084104 | 8.369294 | 7.26575 | 5.467954E-02 | | | 15 | |
| Methylcyclohexane | 0.2523952 | 13.64479 | 14.39522 | 2.265609E-02 | | | 15 | |
| Naphthalene | 1.191261 | 23.06464 | 21.05987 | 0.0200552 | 0.9993743 | | 0.995 | |
| Methyl Methacrylate | 0.2187958 | 26.61596 | 14.03787 | 3.704044E-02 | 0.9996399 | | 0.995 | |
| 4-Methyl-2-pentanone | 0.2291641 | 26.90628 | 14.72129 | 3.572917E-02 | 0.998877 | | 0.995 | |
| Methyl t-Butyl Ether | 0.6052207 | 12.8349 | 8.8215 | 8.072976E-02 | | | 15 | |
| n-Propylbenzene | 2.237126 | 9.337395 | 17.95567 | 1.994119E-02 | | | 15 | |
| Styrene | 0.9900017 | 17.07341 | 17.26711 | 2.496185E-02 | 0.9965055 | | 0.995 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6316098 | 10.04922 | 17.33711 | 2.899413E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.4599538 | 6.327214 | 16.63844 | 0.0277822 | | | 15 | |
| ~~tert-Butyl alcohol~~ | ~~2.388561E-02~~* | 13.61304 | 6.978556 | 0.1148859 | | | 15 | |
| Tetrachloroethene | 0.4471173 | 6.159571 | 16.11311 | 2.040489E-02 | | | 15 | |
| Toluene | 0.898576 | 5.037505 | 15.40022 | 1.146996E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.5261452 | 14.88703 | 21.32 | 1.886098E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.5974773 | 14.98863 | 20.7705 | 1.201415E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.3365667 | 8.950328 | 15.214 | 1.611987E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.4251429 | 6.687853 | 12.30511 | 4.576472E-02 | | | 15 | |
| Tetrahydrofuran | 5.018338E-02 | 22.93539 | 11.61686 | 9.895117E-02 | 0.9967826 | | 0.995 | |
| Trichloroethene | 0.2427349 | 7.126407 | 13.76456 | 0.0129328 | | | 15 | |
| Trichlorofluoromethane | 0.4960262 | 4.904978 | 6.104889 | 0.1074519 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1614366 | 9.000469 | 17.44544 | 3.217736E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.570048 | 8.309352 | 18.16144 | 1.721281E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.587548 | 10.03676 | 18.48033 | 3.047003E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2442818 | 8.405401 | 7.325778 | 7.810021E-02 | | | 15 | |
| Vinyl chloride | 0.2947606 | 14.0323 | 4.588555 | 0.1334175 | 0.9995107 | | CCC (20) | |
| m,p-Xylene | 1.366232 | 11.79195 | 17.00411 | 0.0168046 | | | 15 | |
| o-Xylene | 1.476455 | 10.00571 | 17.32733 | 2.448285E-02 | | | 15 | |
| Vinyl acetate | 0.2765328 | 28.3144 | 9.427714 | 0.103809 | 0.9990022 | | 0.995 | |
| Xylenes (total) | 1.402973 | 10.95705 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3744165 | 3.817796 | 11.19738 | 3.515222E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 6.425678E-02 | 3.823514 | 11.99925 | 2.523171E-02 | | | 15 | |
| Toluene-d8 | 1.791679 | 4.193785 | 15.32337 | 1.566914E-02 | | | 15 | |
| tert-Amyl alcohol | 1.211988E-02 | 27.37991 | 11.86886 | 4.178914E-02 | 0.9964038 | | 0.995 | |
| tert-Amyl ethyl ether | 0.5459039 | 17.64679 | 14.268 | 2.379276E-02 | 0.9999014 | | 0.995 | |

# INITIAL CALIBRATION DATA

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1078001

Instrument: MS-VOA5

Matrix: Water

Calibration Dates: 3/7/11 12:53 3/17/11 23:15

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 2.501 | 4.202849E-02 | 5.002 | 4.912805E-02 | 10 | 4.589774E-02 | 25.01 | 3.251549E-02 | 50.02 | 3.552824E-02 | 250.1 | 4.184221E-02 |
| Acrylonitrile | 2.499 | 5.545187E-02 | 4.998 | 7.451654E-02 | 9.996 | 7.106185E-02 | 24.99 | 0.0682373 | 49.98 | 6.828281E-02 | 249.9 | 8.161908E-02 |
| Benzene | 0.5 | 0.6530366 | 1 | 0.7225063 | 2 | 0.7201156 | 5 | 0.6816376 | 10 | 0.6954858 | 50 | 0.7910287 |
| Bromobenzene | 0.5 | 0.549701 | 1 | 0.5653215 | 2 | 0.6257115 | 5 | 0.5303183 | 10 | 0.5647184 | 50 | 0.6361531 |
| Bromochloromethane | 0.5 | 0.1057606 | 1 | 0.123257 | 2 | 0.1190287 | 5 | 0.127271 | 10 | 0.1148693 | 50 | 0.1302114 |
| Tert-Amyl Methyl Ether | 0.5 | ~~1.598608~~ | 1 | 1.090158 | 2 | 0.8260847 | 5 | 0.6332337 | 10 | 0.6008392 | 50 | 0.6896912 |
| Bromodichloromethane | 0.5 | 0.3473567 | 1 | 0.3738296 | 2 | 0.4274612 | 5 | 0.3744141 | 10 | 0.3729374 | 50 | 0.4197135 |
| Bromoform | 0.5 | 0.3395406 | 1 | 0.3933789 | 2 | 0.3827047 | 5 | 0.3585994 | 10 | 0.3668502 | 50 | 0.4494797 |
| Bromomethane | 0.5 | ~~0.3339126~~ | 1 | 0.2608612 | 2 | 0.2028232 | 5 | 0.1894378 | 10 | 0.188385 | 50 | 0.2209556 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 0.5 | 1.255296 | 1 | 1.157849 | 2 | 1.426318 | 5 | 1.157857 | 10 | 1.335827 | 50 | 1.584764 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 0.5 | 1.605971 | 1 | 1.719527 | 2 | 1.893229 | 5 | 1.688532 | 10 | 1.794192 | 50 | 2.06856 |
| tert-Butylbenzene | 0.5 | 1.605971 | 1 | 1.7606 | 2 | 1.746774 | 5 | 1.451504 | 10 | 1.473921 | 50 | 1.700813 |
| Carbon disulfide | 0.5 | 0.567741 | 1 | 0.6859014 | 2 | 0.6154258 | 5 | 0.5634893 | 10 | 0.5461005 | 50 | 0.6585375 |
| Carbon tetrachloride | 0.5 | 0.3372985 | 1 | 0.3758977 | 2 | 0.3952787 | 5 | 0.3632524 | 10 | 0.3650022 | 50 | 0.4153075 |
| Chlorobenzene | 0.5 | 1.111502 | 1 | 1.209113 | 2 | 1.239253 | 5 | 1.061227 | 10 | 1.066952 | 50 | 1.15929 |
| Chloroethane | 0.5 | 0.1642675 | 1 | 0.1587503 | 2 | 0.1476798 | 5 | 0.1392525 | 10 | 0.148308 | 50 | 0.1668889 |
| Chloroform | 0.5 | 0.5017652 | 1 | 0.5564144 | 2 | 0.5459435 | 5 | 0.4611848 | 10 | 0.4613822 | 50 | 0.5231686 |
| 2-Chloroethyl vinyl ether | 0.9975 | ~~5.363679E-02~~ | 1.995 | 6.752328E-02 | 3.99 | 9.076441E-02 | 9.975 | 8.626115E-02 | 19.95 | 0.1022495 | 99.75 | 0.1326303 |
| Chloromethane | 0.5 | 0.2942773 | 1 | 0.3005165 | 2 | 0.2887365 | 5 | 0.2728978 | 10 | 0.2720284 | 50 | 0.3033957 |
| 1-Chlorohexane | 0.501 | 1.097595 | 1.002 | 1.012135 | 2.004 | 0.936332 | 5.01 | 0.9217559 | 10.02 | 1.025372 | 50.1 | 1.12813 |
| 2-Chlorotoluene | 0.5 | 1.515348 | 1 | 1.397997 | 2 | 1.557541 | 5 | 1.439761 | 10 | 1.452007 | 50 | 1.635309 |
| 4-Chlorotoluene | 0.5 | 1.318388 | 1 | 1.484549 | 2 | 1.638874 | 5 | 1.516016 | 10 | 1.543591 | 50 | 1.8314 |
| Cyclohexane | 0.5 | 0.2206333 | 1 | 0.2140453 | 2 | 0.2586329 | 5 | 0.2414361 | 10 | 0.2639292 | 50 | 0.3142955 |
| Dibromochloromethane | 0.5 | 0.5052372 | 1 | 0.4633049 | 2 | 0.5005268 | 5 | 0.5110683 | 10 | 0.5275074 | 50 | 0.6261449 |
| 1,2-Dibromo-3-chloropropane | 0.5 | 6.332115E-02 | 1 | 8.807993E-02 | 2 | 0.1177169 | 5 | 0.088725 | 10 | 9.884858E-02 | 50 | 0.1336266 |
| 1,2-Dibromoethane (EDB) | 0.5 | 0.4013586 | 1 | 0.4685921 | 2 | 0.4812981 | 5 | 0.4381936 | 10 | 0.4371352 | 50 | 0.506655 |
| Dibromomethane | 0.5 | 0.1451469 | 1 | 0.1779058 | 2 | 0.2140704 | 5 | 0.1780449 | 10 | 0.1786761 | 50 | 0.2089759 |
| 1,2-Dichlorobenzene | 0.5 | 0.8423319 | 1 | 0.9380307 | 2 | 1.049278 | 5 | 0.8604472 | 10 | 0.9217492 | 50 | 1.049516 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 0.5 | 1.112479 | 1 | 1.115307 | 2 | 1.098572 | 5 | 0.956071 | 10 | 0.9729225 | 50 | 1.103796 |
| 1,4-Dichlorobenzene | 0.5 | 1.158593 | 1 | 1.099266 | 2 | 1.332311 | 5 | 1.080485 | 10 | 1.135327 | 50 | 1.20675 |
| Dichlorodifluoromethane | 0.5 | ~~0.2031559~~ | 1 | 0.2851352 | 2 | 0.2817137 | 5 | 0.2668703 | 10 | 0.3308495 | 50 | 0.3489188 |
| 1,1-Dichloroethane | 0.5 | 0.3854983 | 1 | 0.423334 | 2 | 0.4313391 | 5 | 0.3971104 | 10 | 0.3918833 | 50 | 0.4451532 |
| 1,2-Dichloroethane | 0.5 | 0.4534161 | 1 | 0.5343377 | 2 | 0.5080707 | 5 | 0.474543 | 10 | 0.4663805 | 50 | 0.5333544 |
| 1,1-Dichloroethene | 0.5 | 0.1841349 | 1 | 0.1548726 | 2 | 0.1580342 | 5 | 0.1573192 | 10 | 0.1602801 | 50 | 0.1915411 |
| cis-1,2-Dichloroethene | 0.5 | 0.1785083 | 1 | 0.2166562 | 2 | 0.2079804 | 5 | 0.2065796 | 10 | 0.2021081 | 50 | 0.2421655 |
| trans-1,2-Dichloroethene | 0.5 | 0.1889151 | 1 | 0.2033947 | 2 | 0.2079271 | 5 | 0.1753228 | 10 | 0.1818072 | 50 | 0.2186191 |
| 1,2-Dichloroethene (total) | 1 | 0.1837117 | 2 | 0.2100255 | 4 | 0.2079537 | 10 | 0.1909512 | 20 | 0.1919577 | 100 | 0.2303923 |
| 1,2-Dichloropropane | 0.5 | 0.168948 | 1 | 0.1879359 | 2 | 0.2268768 | 5 | 0.18732 | 10 | 0.2047549 | 50 | 0.2315456 |
| 1,3-Dichloropropane | 0.5 | 0.6575926 | 1 | 0.6980674 | 2 | 0.8082657 | 5 | 0.7240532 | 10 | 0.6862058 | 50 | 0.7566693 |
| 2,2-Dichloropropane | 0.5 | 0.3354064 | 1 | 0.3836529 | 2 | 0.3996096 | 5 | 0.3878091 | 10 | 0.3668844 | 50 | 0.4171759 |
| 1,1-Dichloropropene | 0.5 | 0.2865593 | 1 | 0.2785174 | 2 | 0.2981447 | 5 | 0.268573 | 10 | 0.2936362 | 50 | 0.3550121 |
| cis-1,3-Dichloropropene | 0.5 | ~~0.2853145~~ | 1 | 0.3528387 | 2 | 0.3737703 | 5 | 0.3385224 | 10 | 0.3390344 | 50 | 0.4267643 |
| trans-1,3-Dichloropropene | 0.5 | 0.4846652 | 1 | 0.5558829 | 2 | 0.573596 | 5 | 0.552392 | 10 | 0.6471858 | 50 | 0.7812347 |
| Diisopropyl Ether | 0.5 | | 1 | 0.5630839 | 2 | 0.6222887 | 5 | 0.5963593 | 10 | 0.6386277 | 50 | 0.8195299 |
| Ethylbenzene | 0.5 | 1.513777 | 1 | 1.764011 | 2 | 1.821805 | 5 | 1.720226 | 10 | 1.783079 | 50 | 2.025284 |
| Ethyl tert-Butyl Ether | 0.5 | ~~0.4837401~~ | 1 | 0.533252 | 2 | 0.5360156 | 5 | 0.5875992 | 10 | 0.6570009 | 50 | 0.77559 |
| Ethyl Methacrylate | 0.5 | ~~0.3472806~~ | 1 | 0.3283255 | 2 | 0.4147087 | 5 | 0.4343821 | 10 | 0.4829659 | 50 | 0.6092486 |
| Hexachlorobutadiene | 0.5 | ~~0.1803276~~ | 1 | 0.3610161 | 2 | 0.3366699 | 5 | 0.2756972 | 10 | 0.2860133 | 50 | 0.317731 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 0.5 | 0.2073883 | 1 | 0.2101418 | 2 | 0.269427 | 5 | 0.2611686 | 10 | 0.2970676 | 50 | 0.3910659 |
| Isopropylbenzene | 0.5 | ~~1.014897~~ | 1 | 1.245864 | 2 | 1.4504 | 5 | 1.370257 | 10 | 1.398715 | 50 | 1.667963 |
| p-Isopropyltoluene | 0.5 | 0.8871844 | 1 | 1.160669 | 2 | 1.272723 | 5 | 1.045097 | 10 | 1.229134 | 50 | 1.400642 |
| Methylene chloride | 0.5 | 0.244534 | 1 | 0.2535454 | 2 | 0.2563674 | 5 | 0.2239895 | 10 | 0.2033621 | 50 | 0.2542167 |
| Methyl Acetate | 0.5 | | 1 | 0.2345451 | 2 | 0.216629 | 5 | 0.1838885 | 10 | 0.1831722 | 50 | 0.2121993 |
| Methylcyclohexane | 0.5 | 0.1914047 | 1 | 0.2351396 | 2 | 0.2372178 | 5 | 0.2240788 | 10 | 0.2424172 | 50 | 0.286189 |
| Naphthalene | 0.5 | ~~0.8169805~~ | 1 | 0.81305 | 2 | 0.8881873 | 5 | 0.9747024 | 10 | 1.113737 | 50 | 1.41024 |
| Methyl Methacrylate | 0.5 | ~~0.1152213~~ | 1 | 0.1414302 | 2 | 0.1646306 | 5 | 0.1650073 | 10 | 0.1929139 | 50 | 0.2643784 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 0.5 | ~~0.3712574~~ | 1 | 0.5175347 | 2 | 0.5668921 | 5 | 0.5123423 | 10 | 0.5433326 | 50 | 0.6560853 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 0.5 | 1.916612 | 1 | 1.97225 | 2 | 2.410713 | 5 | 2.088476 | 10 | 2.223762 | 50 | 2.522939 |
| Styrene | 0.5 | 0.6770443 | 1 | 0.7968657 | 2 | 0.9376251 | 5 | 0.9650893 | 10 | 1.043912 | 50 | 1.211562 |
| 1,1,2,2-Tetrachloroethane | 0.5 | 0.5384592 | 1 | 0.6360675 | 2 | 0.7431904 | 5 | 0.5442388 | 10 | 0.6085617 | 50 | 0.6675579 |
| 1,1,1,2-Tetrachloroethane | 0.5 | 0.45452 | 1 | 0.4771967 | 2 | 0.5059003 | 5 | 0.434704 | 10 | 0.4626439 | 50 | 0.4937243 |
| tert-Butyl alcohol | 2.5 | 1.783589E-02 | 5 | 2.238686E-02 | 10 | 2.320073E-02 | 25 | 2.129539E-02 | 50 | 2.269986E-02 | 250 | 2.659937E-02 |
| Tetrachloroethene | 0.5 | 0.4222361 | 1 | 0.4719095 | 2 | 0.4799547 | 5 | 0.4068502 | 10 | 0.4320685 | 50 | 0.4867327 |
| Toluene | 0.5 | 0.8970227 | 1 | 0.8561654 | 2 | 0.9635708 | 5 | 0.8794404 | 10 | 0.870273 | 50 | 0.9729753 |
| 1,2,3-Trichlorobenzene | 0.5 | 0.4409538 | 1 | 0.4929891 | 2 | 0.4516201 | 5 | 0.4558933 | 10 | 0.4719025 | 50 | 0.5739709 |
| 1,2,4-Trichlorobenzene | 0.5 | ~~0.4700907~~ | 1 | 0.5186668 | 2 | 0.5691586 | 5 | 0.4730288 | 10 | 0.5158334 | 50 | 0.6525275 |
| 1,1,2-Trichloroethane | 0.5 | 0.2867865 | 1 | 0.3314874 | 2 | 0.3915552 | 5 | 0.3359903 | 10 | 0.3425208 | 50 | 0.3653537 |
| 1,1,1-Trichloroethane | 0.5 | 0.3788758 | 1 | 0.4498053 | 2 | 0.4136953 | 5 | 0.3982298 | 10 | 0.4053592 | 50 | 0.4596763 |
| Tetrahydrofuran | 0.5 | | 1 | | 2 | 3.503431E-02 | 5 | 4.005893E-02 | 10 | 4.094744E-02 | 50 | 5.213498E-02 |
| Trichloroethene | 0.5 | 0.2230233 | 1 | 0.2314171 | 2 | 0.2368847 | 5 | 0.2277363 | 10 | 0.2250709 | 50 | 0.2626272 |
| Trichlorofluoromethane | 0.5 | 0.5036573 | 1 | 0.5102706 | 2 | 0.5224896 | 5 | 0.4893201 | 10 | 0.45786 | 50 | 0.512485 |
| 1,2,3-Trichloropropane | 0.5 | 0.1740477 | 1 | 0.1758257 | 2 | 0.1744547 | 5 | 0.1433401 | 10 | 0.1569296 | 50 | 0.1778811 |
| 1,3,5-Trimethylbenzene | 0.5 | 1.38515 | 1 | 1.394001 | 2 | 1.590086 | 5 | 1.488164 | 10 | 1.517113 | 50 | 1.732998 |
| 1,2,4-Trimethylbenzene | 0.5 | 1.319305 | 1 | 1.417153 | 2 | 1.589194 | 5 | 1.454183 | 10 | 1.605423 | 50 | 1.792477 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 0.5 | 0.24309 | 1 | 0.2724683 | 2 | 0.2760501 | 5 | 0.2216615 | 10 | 0.2130937 | 50 | 0.2434672 |
| Vinyl chloride | 0.5 | 0.2372642 | 1 | 0.3159495 | 2 | 0.2648295 | 5 | 0.2373792 | 10 | 0.2787096 | 50 | 0.3091784 |
| m,p-Xylene | 1 | 1.203261 | 2 | 1.345518 | 4 | 1.519229 | 10 | 1.462656 | 20 | 1.42931 | 100 | 1.589696 |
| o-Xylene | 0.5 | 1.27231 | 1 | 1.368351 | 2 | 1.604257 | 5 | 1.495059 | 10 | 1.554475 | 50 | 1.717049 |
| Vinyl acetate | 0.9995 | | 1.999 | | 3.998 | 0.1791523 | 9.995 | 0.1819274 | 19.99 | 0.2249437 | 99.95 | 0.3163395 |
| Xylenes (total) | 1.5 | 1.226277 | 3 | 1.353129 | 6 | 1.547571 | 15 | 1.473457 | 30 | 1.471032 | 150 | 1.632147 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 2.5 | | 5 | | 10 | 8.339471E-03 | 25 | 8.548847E-03 | 50 | 9.289561E-03 | 250 | 1.321119E-02 |
| tert-Amyl ethyl ether | 0.5 | ~~0.3347591~~ | 1 | 0.4084956 | 2 | 0.4769143 | 5 | 0.4622831 | 10 | 0.4859446 | 50 | 0.6251876 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | I078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | 2 | | 4 | 0.1155431 |
| Acrolein | 500.2 | 4.537999E-02 | 750.3 | 4.671631E-02 | 1000 | 4.647195E-02 | | | | | | |
| Acrylonitrile | 499.8 | 8.020876E-02 | 749.7 | 8.652166E-02 | 999.6 | 8.833622E-02 | | | | | | |
| Benzene | 100 | 0.7898222 | 150 | 0.7975283 | 200 | 0.8063745 | | | | | | |
| Bromobenzene | 100 | 0.6187025 | 150 | 0.6222701 | 200 | 0.6471744 | | | | | | |
| Bromochloromethane | 100 | 0.1294359 | 150 | 0.1325201 | 200 | 0.1344625 | | | | | | |
| Tert-Amyl Methyl Ether | 100 | 0.6948232 | 150 | 0.6950278 | 200 | 0.6956089 | | | | | | |
| Bromodichloromethane | 100 | 0.4247199 | 150 | 0.4042228 | 200 | 0.3963136 | | | | | | |
| Bromoform | 100 | 0.4154828 | 150 | 0.4102604 | 200 | 0.3871125 | | | | | | |
| Bromomethane | 100 | 0.2492772 | 150 | 0.2501447 | 200 | 0.2481988 | | | | | | |
| Bromofluorobenzene | | | | | | | | | 30 | 0.8943864 | 40 | 0.8782409 |
| n-Butylbenzene | 100 | 1.514347 | 150 | 1.485248 | 200 | 1.486304 | | | | | | |
| 2-Butanone | | | | | | | | | 2 | | 4 | .6.401813E-02 |
| sec-Butylbenzene | 100 | 1.977237 | 150 | 1.94332 | 200 | 1.912932 | | | | | | |
| tert-Butylbenzene | 100 | 1.637947 | 150 | 1.616132 | 200 | 1.587974 | | | | | | |
| Carbon disulfide | 100 | 0.6709351 | 150 | 0.6913621 | 200 | 0.7122962 | | | | | | |
| Carbon tetrachloride | 100 | 0.4094476 | 150 | 0.3886809 | 200 | 0.3728976 | | | | | | |
| Chlorobenzene | 100 | 1.03645 | 150 | 1.013713 | 200 | 0.9655527 | | | | | | |
| Chloroethane | 100 | 0.1746583 | 150 | 0.1771378 | 200 | 0.1705082 | | | | | | |
| Chloroform | 100 | 0.5251731 | 150 | 0.5097682 | 200 | 0.4914869 | | | | | | |
| 2-Chloroethyl vinyl ether | 199.5 | 0.1412735 | 299.2 | 0.1437648 | 399 | 0.1429149 | | | | | | |
| Chloromethane | 100 | 0.3297665 | 150 | 0.3154371 | 200 | 0.3056923 | | | | | | |
| 1-Chlorohexane | 100.2 | 1.026593 | 150.3 | 0.9894423 | 200.4 | 0.9174486 | | | | | | |
| 2-Chlorotoluene | 100 | 1.608016 | 150 | 1.519558 | 200 | 1.582697 | | | | | | |
| 4-Chlorotoluene | 100 | 1.719894 | 150 | 1.625306 | 200 | 1.61196 | | | | | | |
| Cyclohexane | 100 | 0.3215786 | 150 | 0.332662 | 200 | 0.331074 | | | | | | |
| Dibromochloromethane | 100 | 0.5619766 | 150 | 0.5509758 | 200 | 0.500646 | | | | | | |
| 1,2-Dibromo-3-chloropropane | 100 | 0.1349941 | 150 | 0.1374441 | 200 | 0.1449123 | | | | | | |
| 1,2-Dibromoethane (EDB) | 100 | 0.4667893 | 150 | 0.4505717 | 200 | 0.4302985 | | | | | | |
| Dibromomethane | 100 | 0.2059913 | 150 | 0.2000632 | 200 | 0.1976889 | | | | | | |
| 1,2-Dichlorobenzene | 100 | 1.031498 | 150 | 1.016431 | 200 | 1.025431 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 100 | 1.108741 | 150 | 1.130816 | 200 | 1.128786 | | | | | | |
| 1,4-Dichlorobenzene | 100 | 1.134239 | 150 | 1.118917 | 200 | 1.115377 | | | | | | |
| Dichlorodifluoromethane | 100 | 0.3528406 | 150 | 0.3374166 | 200 | 0.2987596 | | | | | | |
| 1,1-Dichloroethane | 100 | 0.4745472 | 150 | 0.4731673 | 200 | 0.4769946 | | | | | | |
| 1,2-Dichloroethane | 100 | 0.5198466 | 150 | 0.5000919 | 200 | 0.4722982 | | | | | | |
| 1,1-Dichloroethene | 100 | 0.193752 | 150 | 0.1997432 | 200 | 0.2021713 | | | | | | |
| cis-1,2-Dichloroethene | 100 | 0.2478902 | 150 | 0.248514 | 200 | 0.2531567 | | | | | | |
| trans-1,2-Dichloroethene | 100 | 0.222446 | 150 | 0.2329343 | 200 | 0.2379576 | | | | | | |
| 1,2-Dichloroethene (total) | 200 | 0.2351681 | 300 | 0.2407242 | 400 | 0.2455572 | | | | | | |
| 1,2-Dichloropropane | 100 | 0.2367122 | 150 | 0.2358734 | 200 | 0.2448404 | | | | | | |
| 1,3-Dichloropropane | 100 | 0.6937736 | 150 | 0.6752094 | 200 | 0.6407095 | | | | | | |
| 2,2-Dichloropropane | 100 | 0.4166805 | 150 | 0.3912986 | 200 | 0.3899277 | | | | | | |
| 1,1-Dichloropropene | 100 | 0.3616764 | 150 | 0.3541348 | 200 | 0.3561577 | | | | | | |
| cis-1,3-Dichloropropene | 100 | 0.4507282 | 150 | 0.4365991 | 200 | 0.4359175 | | | | | | |
| trans-1,3-Dichloropropene | 100 | 0.7237757 | 150 | 0.7100555 | 200 | 0.6640482 | | | | | | |
| Diisopropyl Ether | 100 | 0.8578372 | 150 | 0.898002 | 200 | 0.9225843 | | | | | | |
| Ethylbenzene | 100 | 1.819871 | 150 | 1.71527 | 200 | 1.537014 | | | | | | |
| Ethyl tert-Butyl Ether | 100 | 0.7863012 | 150 | 0.7939053 | 200 | 0.8125347 | | | | | | |
| Ethyl Methacrylate | 100 | 0.5617984 | 150 | 0.5650667 | 200 | 0.5395296 | | | | | | |
| Hexachlorobutadiene | 100 | 0.3289285 | 150 | 0.3234147 | 200 | 0.3372599 | | | | | | |
| 2-Hexanone | | | | | | | | | 2 | 9.931979E-02 | 4 | 0.1971067 |
| Iodomethane | 100 | 0.4042131 | 150 | 0.4078242 | 200 | 0.4056416 | | | | | | |
| Isopropylbenzene | 100 | 1.531807 | 150 | 1.427509 | 200 | 1.304044 | | | | | | |
| p-Isopropyltoluene | 100 | 1.393249 | 150 | 1.365565 | 200 | 1.374954 | | | | | | |
| Methylene chloride | 100 | 0.241731 | 150 | 0.2603899 | 200 | 0.2635829 | | | | | | |
| Methyl Acetate | 100 | 0.2061918 | 150 | 0.2117359 | 200 | 0.2189216 | | | | | | |
| Methylcyclohexane | 100 | 0.2844625 | 150 | 0.2852673 | 200 | 0.2853802 | | | | | | |
| Naphthalene | 100 | 1.448814 | 150 | 1.409495 | 200 | 1.471859 | | | | | | |
| Methyl Methacrylate | 100 | 0.2787233 | 150 | 0.272668 | 200 | 0.2706149 | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | | | 2 | | 4 | 0.1396502 |
| Methyl t-Butyl Ether | 100 | 0.6704206 | 150 | 0.6770861 | 200 | 0.698072 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 100 | 2.427719 | 150 | 2.308448 | 200 | 2.263217 | | | | | | |
| Styrene | 100 | 1.140643 | 150 | 1.106706 | 200 | 1.030568 | | | | | | |
| 1,1,2,2-Tetrachloroethane | 100 | 0.6422802 | 150 | 0.6337047 | 200 | 0.6704276 | | | | | | |
| 1,1,1,2-Tetrachloroethane | 100 | 0.4536149 | 150 | 0.44524 | 200 | 0.4120404 | | | | | | |
| tert-Butyl alcohol | 500 | 2.620594E-02 | 750 | 2.767036E-02 | 1000 | 2.705806E-02 | | | | | | |
| Tetrachloroethene | 100 | 0.4505318 | 150 | 0.4445511 | 200 | 0.429221 | | | | | | |
| Toluene | 100 | 0.9009451 | 150 | 0.9079673 | 200 | 0.8388243 | | | | | | |
| 1,2,3-Trichlorobenzene | 100 | 0.5977418 | 150 | 0.6131081 | 200 | 0.6371271 | | | | | | |
| 1,2,4-Trichlorobenzene | 100 | 0.6614652 | 150 | 0.6722719 | 200 | 0.7168659 | | | | | | |
| 1,1,2-Trichloroethane | 100 | 0.337697 | 150 | 0.3297807 | 200 | 0.3079286 | | | | | | |
| 1,1,1-Trichloroethane | 100 | 0.4583119 | 150 | 0.4384645 | 200 | 0.4238678 | | | | | | |
| Tetrahydrofuran | 100 | 5.828799E-02 | 150 | 6.028031E-02 | 200 | 6.453969E-02 | | | | | | |
| Trichloroethene | 100 | 0.2636737 | 150 | 0.2625535 | 200 | 0.2516278 | | | | | | |
| Trichlorofluoromethane | 100 | 0.5165366 | 150 | 0.4953456 | 200 | 0.4562709 | | | | | | |
| 1,2,3-Trichloropropane | 100 | 0.1575376 | 150 | 0.1524221 | 200 | 0.1404905 | | | | | | |
| 1,3,5-Trimethylbenzene | 100 | 1.708823 | 150 | 1.649211 | 200 | 1.664883 | | | | | | |
| 1,2,4-Trimethylbenzene | 100 | 1.737568 | 150 | 1.686073 | 200 | 1.68656 | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 100 | 0.2473752 | 150 | 0.2455076 | 200 | 0.2358224 | | | | | | |
| Vinyl chloride | 100 | 0.3415414 | 150 | 0.3362422 | 200 | 0.3317518 | | | | | | |
| m,p-Xylene | 200 | 1.390881 | 300 | 1.283565 | 400 | 1.071972 | | | | | | |
| o-Xylene | 100 | 1.555729 | 150 | 1.421142 | 200 | 1.29972 | | | | | | |
| Vinyl acetate | 199.9 | 0.3335789 | 299.8 | 0.3433023 | 399.8 | 0.3564856 | | | | | | |
| Xylenes (total) | 300 | 1.44583 | 450 | 1.329424 | 600 | 1.147888 | | | | | | |
| Dibromofluoromethane | | | | | | | | | 30 | 0.3730294 | 40 | 0.3738719 |
| 1,2-Dichloroethane-d4 | | | | | | | | | 30 | 6.304818E-02 | 40 | 6.610084E-02 |
| Toluene-d8 | | | | | | | | | 30 | 1.85378 | 40 | 1.798374 |
| tert-Amyl alcohol | 500 | 0.0139922 | 750 | 1.536187E-02 | 1000 | 1.609601E-02 | | | | | | |
| tert-Amyl ethyl ether | 100 | 0.6394152 | 150 | 0.6326191 | 200 | 0.6363716 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1078001 | | Instrument: | MS-VOA5 | |
| Matrix: | Water | | Calibration Dates: | 3/7/11 12:53 | 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 10 | 0.1048318 | 20 | 9.745761E-02 | 100 | 0.1115843 | 200 | 0.1184698 | 300 | 0.1226784 | 400 | 0.1175419 |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 50 | 0.8294758 | 60 | 0.8149449 | 70 | 0.8209916 | 30 | 0.9150239 | 30 | 0.9047329 | 30 | 0.8621954 |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 10 | 0.0744542 | 20 | 0.0793158 | 100 | 0.112114 | 200 | 0.1218397 | 300 | 0.1308349 | 400 | 0.1304908 |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 10 | 0.2586601 | 20 | 0.2502352 | 100 | 0.3584986 | 200 | 0.3739308 | 300 | 0.3917018 | 400 | 0.3732671 |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 10 | 0.1703839 | 20 | 0.1857293 | 100 | 0.2665153 | 200 | 0.2763331 | 300 | 0.2894801 | 400 | 0.2760566 |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 50 | 0.3650414 | 60 | 0.3566546 | 70 | 0.3579211 | 30 | 0.3959409 | 30 | 0.3860029 | 30 | 0.3868698 |
| 1,2-Dichloroethane-d4 | 50 | 6.471363E-02 | 60 | 6.077214E-02 | 70 | 6.252823E-02 | 30 | 6.261071E-02 | 30 | 6.597527E-02 | 30 | 6.830528E-02 |
| Toluene-d8 | 50 | 1.680284 | 60 | 1.720643 | 70 | 1.747087 | 30 | 1.916527 | 30 | 1.804347 | 30 | 1.81239 |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 03071CV1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV1 | Injection Time: | 17:25 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 50.00 | 59.48 | 0.7397262 | 0.8799265 | | 19.0 | 20 |
| Methyl t-Butyl Ether | A | 50.00 | 53.21 | 0.6052207 | 0.6440646 | | 6.4 | 20 |
| Xylenes (total) | A | 150.0 | 178.2 | 1.402973 | 1.666436 | | 18.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.02 | 0.864999 | 0.8654822 | | 0.06 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.13 | 0.3744165 | 0.3515641 | | -6.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.21 | 6.425678E-02 | 6.471411E-02 | | 0.7 | 20 |
| Toluene-d8 | A | 30.00 | 31.54 | 1.791679 | 1.883703 | | 5.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0307ICV2.D | Calibration Date: | ~~03/07/11~~ 12:53 |
| Sequence: | 1C07710 | Injection Date: | 03/07/11 |
| Lab Sample ID: | 1C07710-ICV2 | Injection Time: | 17:55 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Ethylbenzene | A | 100.0 | 110.5 | 1.744482 | 1.927945 | | 10.5 | 20 |
| Toluene | A | 100.0 | 114.8 | 0.898576 | 1.031524 | | 14.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09202 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09202-TUN1 | 0401TU1E.D | 04/01/11 17:48 |
| Calibration Check | 1D09202-CCV1 | 0401CC1E.D | 04/01/11 18:19 |
| LCS | 1D01013-BS1 | 0401LS1E.D | 04/01/11 18:49 |
| Blank | 1D01013-BLK1 | 0401BL1E.D | 04/01/11 20:17 |
| TRIP BLANK 9486 | 1103257-05 | 0325705.D | 04/01/11 20:47 |
| 05-MW-084 | 1103257-13 | 0325713.D | 04/01/11 21:47 |
| LCS Dup | 1D01013-BSD1 | 0401LD1E.D | 04/02/11 04:20 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0401TU1E.D | Injection Date: | 04/01/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 17:48 |
| Sequence: | 1D09202 | Lab Sample ID: | 1D09202-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 25.6 | PASS |
| 75 | 30 - 60% of 95 | 54.8 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.85 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 81.9 | PASS |
| 175 | 5 - 9% of 174 | 7.58 | PASS |
| 176 | 95 - 101% of 174 | 96.4 | PASS |
| 177 | 5 - 9% of 176 | 6.92 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0401CC1E.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1D09202 | Injection Date: | 04/01/11 |
| Lab Sample ID: | 1D09202-CCV1 | Injection Time: | 18:19 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acrolein | A | 500.2 | 433.1 | 4.283427E-02 | 3.710365E-02 | | -13.4 | 20 |
| Acrylonitrile | A | 499.8 | 502.1 | 7.491512E-02 | 7.523645E-02 | | 0.4 | 20 |
| Benzene | A | 100.0 | 108.8 | 0.7397262 | 0.8050314 | | 8.8 | 20 |
| Bromodichloromethane | A | 100.0 | 111.7 | 0.393441 | 0.4394237 | | 11.7 | 20 |
| Bromoform | A | 100.0 | 107.6 | 0.3892677 | 0.4187843 | 0.1 | 7.6 | 20 |
| Bromomethane | A | 100.0 | 92.62 | 0.2262604 | 0.2095717 | | -7.4 | 20 |
| Carbon tetrachloride | A | 100.0 | 109.3 | 0.3803403 | 0.4156708 | | 9.3 | 20 |
| Chlorobenzene | A | 100.0 | 96.55 | 1.095895 | 1.058087 | 0.3 | -3.4 | 20 |
| Chloroethane | A | 100.0 | 113.1 | 0.1608279 | 0.181879 | | 13.1 | 20 |
| Chloroform | A | 100.0 | 102.8 | 0.5084763 | 0.5225151 | | 2.8 | 20 |
| 2-Chloroethyl vinyl ether | L | 199.5 | 216.3 | 0.1134227 | 0.1534699 | | 8.4 | 20 |
| Chloromethane | A | 100.0 | 112.3 | 0.2980831 | 0.3346999 | 0.1 | 12.3 | 20 |
| Dibromochloromethane | A | 100.0 | 104.8 | 0.5274875 | 0.5529655 | | 4.8 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 99.08 | 0.4534325 | 0.4492607 | | -0.9 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 105.6 | 0.4332253 | 0.4576236 | 0.1 | 5.6 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 106.4 | 0.4958155 | 0.5278365 | | 6.5 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 105.9 | 0.1779832 | 0.1885359 | | 5.9 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 113.2 | 0.2226177 | 0.252054 | | 13.2 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 111.8 | 0.2077027 | 0.2321847 | | 11.8 | 20 |
| 1,2-Dichloropropane | L | 100.0 | 97.87 | 0.2138675 | 0.2346394 | | -2.1 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 113.5 | 0.3942719 | 0.4474777 | | 13.5 | 20 |
| trans-1,3-Dichloropropene | L | 100.0 | 102.8 | 0.6325373 | 0.7125701 | | 2.8 | 20 |
| Ethylbenzene | A | 100.0 | 101.4 | 1.744482 | 1.768961 | | 1.4 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 107.7 | 0.6052207 | 0.6516778 | | 7.7 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 96.94 | 0.6316098 | 0.6122731 | 0.3 | -3.1 | 20 |
| Tetrachloroethene | A | 100.0 | 100.6 | 0.4471173 | 0.4499449 | | 0.6 | 20 |
| Toluene | A | 100.0 | 99.52 | 0.898576 | 0.8943146 | | -0.5 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 107.1 | 0.5974773 | 0.6396967 | | 7.1 | 20 |
| 1,1,2-Trichloroethane | A | 100.0 | 98.83 | 0.3365667 | 0.3326434 | | -1.2 | 20 |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0401CC1E.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1D09202 | Injection Date: | 04/01/11 |
| Lab Sample ID: | 1D09202-CCV1 | Injection Time: | 18:19 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,1,1-Trichloroethane | A | 100.0 | 107.0 | 0.4251429 | 0.4551085 | | 7.0 | 20 |
| Trichloroethene | A | 100.0 | 110.0 | 0.2427349 | 0.267078 | | 10.0 | 20 |
| Vinyl chloride | L | 100.0 | 109.2 | 0.2947606 | 0.3637237 | | 9.2 | 20 |
| Xylenes (total) | A | 300.0 | 302.6 | 1.402973 | 1.414995 | | 0.9 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.90 | 0.864999 | 0.8332746 | | -3.7 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.73 | 0.3744165 | 0.3590447 | | -4.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.13 | 6.425678E-02 | 6.453734E-02 | | 0.4 | 20 |
| Toluene-d8 | A | 30.00 | 27.30 | 1.791679 | 1.630606 | | -9.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_004
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1C08024
Instrument: MS-VOA6
Calibration: 1081001

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08024-TUN1 | 0208TUN1.D | 02/08/11 16:12 |
| Cal Standard | 1C08024-CAL1 | 0208CAL1.D | 02/08/11 16:35 |
| Cal Standard | 1C08024-CAL2 | 0208CAL2.D | 02/08/11 16:59 |
| Cal Standard | 1C08024-CAL3 | 0208CAL3.D | 02/08/11 17:23 |
| Cal Standard | 1C08024-CAL4 | 0208CAL4.D | 02/08/11 17:47 |
| Cal Standard | 1C08024-CAL5 | 0208CAL5.D | 02/08/11 18:11 |
| Cal Standard | 1C08024-CAL7 | 0208CAL7.D | 02/08/11 18:59 |
| Cal Standard | 1C08024-CAL8 | 0208CAL8.D | 02/08/11 19:23 |
| MS Tune | 1C08024-TUN2 | 0208TUN2.D | 02/09/11 06:45 |
| Cal Standard | 1C08024-CAL6 | 208CAL6A.D | 02/09/11 07:13 |
| Initial Cal Check | 1C08024-ICV1 | 208ICV1A.D | 02/09/11 07:37 |
| MS Tune | 1C08024-TUN3 | 0208TUN3.D | 02/09/11 15:56 |
| Cal Standard | 1C08024-CALH | SEQ-CALH.D | 02/09/11 16:20 |
| Cal Standard | 1C08024-CALI | SEQ-CALI.D | 02/09/11 16:45 |
| Cal Standard | 1C08024-CALJ | SEQ-CALJ.D | 02/09/11 17:09 |
| Cal Standard | 1C08024-CALK | SEQ-CALK.D | 02/09/11 17:33 |
| Cal Standard | 1C08024-CALL | SEQ-CALL.D | 02/09/11 17:56 |
| Cal Standard | 1C08024-CALM | SEQ-CALM.D | 02/09/11 18:20 |
| Cal Standard | 1C08024-CALN | SEQ-CALN.D | 02/09/11 18:44 |
| Cal Standard | 1C08024-CALO | SEQ-CALO.D | 02/09/11 19:08 |
| MS Tune | 1C08024-TUN4 | 0211TUN4.D | 02/11/11 14:35 |
| MS Tune | 1C08024-TUN5 | 0317TUN5.D | 03/17/11 09:51 |
| Cal Standard | 1C08024-CAL9 | 0317CAL1.D | 03/17/11 12:18 |
| Cal Standard | 1C08024-CALA | 0317CAL2.D | 03/17/11 12:43 |
| Cal Standard | 1C08024-CALB | 0317CAL3.D | 03/17/11 13:07 |
| Cal Standard | 1C08024-CALC | 0317CAL4.D | 03/17/11 13:32 |
| Cal Standard | 1C08024-CALD | 0317CAL5.D | 03/17/11 13:57 |
| Cal Standard | 1C08024-CALE | 0317CAL6.D | 03/17/11 14:21 |
| Cal Standard | 1C08024-CALF | 0317CAL7.D | 03/17/11 14:46 |
| Cal Standard | 1C08024-CALG | 0317CAL8.D | 03/17/11 15:11 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN1.D | Injection Date: | 02/08/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 16:12 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 21.5 | PASS |
| 75 | 30 - 60% of 95 | 39.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.17 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 84.4 | PASS |
| 175 | 5 - 9% of 174 | 7.21 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN2.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 06:45 |
| Sequence: | 1C08024 | Lab Sample ID: | ~~1C08024~~-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 23.4 | PASS |
| 75 | 30 - 60% of 95 | 41.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.69 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 82.1 | PASS |
| 175 | 5 - 9% of 174 | 7.04 | PASS |
| 176 | 95 - 101% of 174 | 95 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN3.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 15:56 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN3 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.4 | PASS |
| 75 | 30 - 60% of 95 | 43.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.71 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 63.8 | PASS |
| 175 | 5 - 9% of 174 | 7.5 | PASS |
| 176 | 95 - 101% of 174 | 97.4 | PASS |
| 177 | 5 - 9% of 176 | 6.46 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0211TUN4.D | Injection Date: | 02/11/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 14:35 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN4 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.3 | PASS |
| 75 | 30 - 60% of 95 | 40 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.39 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 86.4 | PASS |
| 175 | 5 - 9% of 174 | 6.88 | PASS |
| 176 | 95 - 101% of 174 | 95.8 | PASS |
| 177 | 5 - 9% of 176 | 6.12 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TUN5.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 09:51 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN5 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.1 | PASS |
| 75 | 30 - 60% of 95 | 46.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.79 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 69.4 | PASS |
| 175 | 5 - 9% of 174 | 7.65 | PASS |
| 176 | 95 - 101% of 174 | 95.3 | PASS |
| 177 | 5 - 9% of 176 | 6.71 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Calibration: 1081001

Matrix: Water

SDG: CTOJM26_004

Project: NAS Pensacola CTO JM26 Saufley

Instrument: MS-VOA6

Calibration Dates: 2/8/11 16:35 3/17/11 15:11

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 9.260554E-02 | 28.00847 | 3.792143 | 0.2505724 | | 0.9930411 | 0.99 | |
| ~~Acrolein~~ | ~~5.008373E-02~~ | 14.17936 | 3.687375 | 0.266829 | | | 15 | |
| Acrylonitrile | 8.885261E-02 | 18.29246 | 4.637625 | 0.1611173 | 0.9961602 | | 0.995 | |
| Benzene | 1.113159 | 4.608946 | 7.67675 | 4.449891E-02 | | | 15 | |
| Bromobenzene | 0.7164301 | 3.444919 | 12.40125 | 2.882236E-02 | | | 15 | |
| Bromochloromethane | 0.1470133 | 2.818947 | 6.77675 | 6.962075E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7667359 | 3.84088 | 7.868625 | 0.0369654 | | | 15 | |
| Bromodichloromethane | 0.3261603 | 6.110637 | 8.6565 | 0.0395075 | | | 15 | |
| Bromoform | 0.3300278 | 14.56769 | 11.81133 | 3.114238E-02 | | | SPCC (0.1) | |
| Bromomethane | 9.416029E-02 | 13.49252 | 2.841429 | 0.3399494 | | | 15 | |
| Bromofluorobenzene | 0.7951301 | 2.708642 | 12.22875 | 0.0251581 | | | 15 | |
| n-Butylbenzene | 2.759967 | 3.753642 | 13.82862 | 1.990092E-02 | | | 15 | |
| 2-Butanone | 0.1620167 | 9.544266 | 6.227 | 6.194136E-02 | | | 15 | |
| sec-Butylbenzene | 3.285152 | 4.35073 | 13.29013 | 3.345705E-02 | | | 15 | |
| tert-Butylbenzene | 2.145432 | 3.707538 | 13.05663 | 2.013395E-02 | | | 15 | |
| Carbon disulfide | 0.7939658 | 17.02013 | 4.8035 | 0.1982975 | 0.9975385 | | 0.995 | |
| Carbon tetrachloride | 0.3144458 | 8.98804 | 7.644625 | 5.435293E-02 | | | 15 | |
| Chlorobenzene | 1.859646 | 6.752518 | 11.08463 | 2.703025E-02 | | | SPCC (0.3) | |
| Chloroethane | 8.354599E-02 | 6.438411 | 2.97925 | 0.3520969 | | | 15 | |
| Chloroform | 0.4852062 | 3.430147 | 6.7485 | 5.313365E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.17477 | 3.894887 | 9.0105 | 4.037457E-02 | | | 15 | |
| Chloromethane | 0.3749535 | 3.973692 | 2.239125 | 0.4681154 | | | SPCC (0.1) | |
| 1-Chlorohexane | 2.070736 | 5.11712 | 11.051 | 3.853776E-02 | | | 15 | |
| 2-Chlorotoluene | 2.109323 | 4.700997 | 12.6225 | 3.341376E-02 | | | 15 | |
| 4-Chlorotoluene | 2.329282 | 4.243641 | 12.68525 | 2.421974E-02 | | | 15 | |
| Cyclohexane | 0.685955 | 5.186082 | 7.5735 | 5.633159E-02 | | | 15 | |
| Dibromochloromethane | 0.5441809 | 14.16857 | 10.3225 | 3.125264E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1110578 | 4.56858 | 14.43113 | 0.0227997 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5250303 | 8.57485 | 10.53375 | 2.690444E-02 | | | 15 | |
| Dibromomethane | 0.172495 | 3.274856 | 8.595125 | 3.800596E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.192622 | 3.865282 | 13.789 | 1.366507E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.301676 | 2.74033 | 13.3795 | 3.011168E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1081001 | Instrument: | MS-VOA6 | |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 | 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.315839 | 3.393764 | 13.47213 | 2.224884E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.2743014 | 10.74781 | 2.016625 | 0.5619011 | | | 15 | |
| 1,1-Dichloroethane | 0.586753 | 4.750245 | 5.793375 | 7.525912E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.2934489 | 4.123627 | 7.505875 | 5.038248E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2034482 | 14.48541 | 4.277667 | 0.1728932 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3168749 | 2.657418 | 6.4965 | 8.574096E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.283059 | 5.687211 | 5.419625 | 8.226152E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2999669 | 3.809693 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.3682027 | 2.627754 | 8.4795 | 4.454179E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8250139 | 6.792829 | 10.06175 | 0.0225482 | | | 15 | |
| 2,2-Dichloropropane | 0.3408366 | 5.440234 | 6.602125 | 6.320189E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.386876 | 5.080917 | 7.524375 | 0.0579442 | | | 15 | |
| cis-1,3-Dichloropropene | 0.441167 | 3.859299 | 9.22575 | 3.273881E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7537714 | 6.572131 | 9.69775 | 2.998173E-02 | | | 15 | |
| Diisopropyl Ether | 1.648527 | 3.427531 | 6.164375 | 8.144213E-02 | | | 15 | |
| Ethylbenzene | 3.20803 | 9.080474 | 11.2305 | 3.248409E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 1.014941 | 4.802987 | 6.624375 | 5.856448E-02 | | | 15 | |
| Ethyl Methacrylate | 0.8111924 | 7.03362 | 9.88475 | 3.023834E-02 | | | 15 | |
| Hexachlorobutadiene | 0.4736085 | 5.501745 | 15.78825 | 2.462656E-02 | | | 15 | |
| 2-Hexanone | 0.5814636 | 8.204247 | 9.98775 | 2.484454E-02 | | | 15 | |
| Iodomethane | 0.3021595 | 14.1237 | 4.468714 | 0.194976 | | | 15 | |
| Isopropylbenzene | 2.472317 | 8.225239 | 12.12925 | 2.846195E-02 | | | 15 | |
| p-Isopropyltoluene | 2.330942 | 4.564871 | 13.4265 | 0.02919 | | | 15 | |
| Methylene chloride | 0.3823591 | 43.34252 | 4.754375 | 0.1602236 | 0.9983757 | | 0.995 | |
| Methyl Acetate | 0.2345594 | 13.01771 | 4.628714 | 0.1631094 | | | 15 | |
| Methylcyclohexane | 0.5128412 | 4.32501 | 8.80775 | 0.0356778 | | | 15 | |
| Naphthalene | 1.602647 | 6.275391 | 15.66025 | 1.983775E-02 | | | 15 | |
| Methyl Methacrylate | 0.471708 | 2.883842 | 7.5735 | 5.633159E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.3518691 | 8.076643 | 9.140625 | 1.978248E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.6002451 | 4.891206 | 5.423375 | 0.1227064 | | | 15 | |
| n-Propylbenzene | 3.803681 | 4.930978 | 12.5375 | 2.980661E-02 | | | 15 | |
| Styrene | 1.92732 | 6.721793 | 11.704 | 2.493567E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1081001 | Instrument: | MS-VOA6 | |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 | 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6908364 | 4.258784 | 12.05575 | 3.119017E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6333042 | 8.281663 | 11.1275 | 3.464365E-02 | | | 15 | |
| tert-Butyl alcohol | 2.671035E-02 | 9.966665 | 4.427375 | 0.2216083 | | | 15 | |
| Tetrachloroethene | 0.6244481 | 8.506563 | 10.43312 | 3.100488E-02 | | | 15 | |
| Toluene | 1.598242 | 4.627079 | 9.70025 | 4.291451E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.7016011 | 4.889794 | 15.94525 | 2.154844E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.7933826 | 3.727781 | 15.508 | 1.845566E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.468124 | 6.206816 | 9.8525 | 3.322686E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3447116 | 5.271122 | 7.3065 | 4.409785E-02 | | | 15 | |
| Tetrahydrofuran | 0.125175 | 32.67256 | 6.962375 | 9.085995E-02 | 0.9977438 | | 0.995 | |
| Trichloroethene | 0.308656 | 4.617016 | 8.43125 | 5.007405E-02 | | | 15 | |
| Trichlorofluoromethane | 0.4287223 | 6.644425 | 3.48675 | 0.268437 | | | 15 | |
| 1,2,3-Trichloropropane | 0.141114 | 8.142237 | 12.1785 | 2.715286E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.27177 | 3.75346 | 12.7145 | 2.609472E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 2.273427 | 4.81283 | 13.08825 | 1.976355E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2574515 | 8.290995 | 4.35 | 0.1908188 | | | 15 | |
| Vinyl chloride | 0.1888258 | 14.37893 | 2.38775 | 0.3384152 | | | CCC (20) | |
| m,p-Xylene | 2.321142 | 4.033096 | 11.34387 | 3.895987E-02 | | | 15 | |
| o-Xylene | 2.395421 | 7.925602 | 11.73375 | 4.033886E-02 | | | 15 | |
| Vinyl acetate | 0.44353 | 3.427564 | 5.86575 | 0.0758661 | | | 15 | |
| Xylenes (total) | 2.345902 | 4.444014 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.2924952 | 1.275439 | 6.909375 | 4.408995E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 5.404713E-02 | 3.185261 | 7.40225 | 6.524669E-02 | | | 15 | |
| Toluene-d8 | 2.103453 | 1.736151 | 9.61275 | 2.403928E-02 | | | 15 | |
| tert-Amyl alcohol | 2.611649E-02 | 4.492563 | 7.122 | 5.407818E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.8849963 | 4.245319 | 8.745 | 4.184207E-02 | | | 15 | |

# INITIAL CALIBRATION DATA

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1081001

Instrument: MS-VOA6

Matrix: Water

Calibration Dates: 2/8/11 16:35 3/17/11 15:11

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 10 | 3.756483E-02 | 25.01 | 3.592496E-02 | 50.02 | 3.279747E-02 | 100 | 3.027563E-02 | 250.1 | 2.616578E-02 | 500.2 | 2.836008E-02 |
| Acrylonitrile | 9.996 | 7.751938E-02 | 24.99 | 6.934293E-02 | 49.98 | 0.1036364 | 99.96 | 6.371372E-02 | 249.9 | 9.483173E-02 | 499.8 | 0.1038235 |
| Benzene | 2 | 1.061782 | 5 | 1.085753 | 10 | 1.07756 | 20 | 1.101538 | 50 | 1.062681 | 100 | 1.168729 |
| Bromobenzene | 2 | 0.7470029 | 5 | 0.690608 | 10 | 0.73579 | 20 | 0.7029826 | 50 | 0.6759098 | 100 | 0.7159262 |
| Bromochloromethane | 2 | 0.1531184 | 5 | 0.1481263 | 10 | 0.1471181 | 20 | 0.1476266 | 50 | 0.1386942 | 100 | 0.1478994 |
| Tert-Amyl Methyl Ether | 2 | 0.7507538 | 5 | 0.7660239 | 10 | 0.7592371 | 20 | 0.7607483 | 50 | 0.7115281 | 100 | 0.7910823 |
| Bromodichloromethane | 2 | 0.3104988 | 5 | 0.3071958 | 10 | 0.3190153 | 20 | 0.3117362 | 50 | 0.3116093 | 100 | 0.3449616 |
| Bromoform | 2 | ~~0.2616829~~ | 5 | 0.2798085 | 10 | 0.3012296 | 20 | 0.3115155 | 50 | 0.3087993 | 100 | 0.3759775 |
| Bromomethane | 2 | ~~7.371335E-02~~ | 5 | 7.750693E-02 | 10 | 8.466907E-02 | 20 | 8.624543E-02 | 50 | 0.0937419 | 100 | 0.1153427 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 2 | 2.785165 | 5 | 2.617003 | 10 | 2.816419 | 20 | 2.750954 | 50 | 2.622143 | 100 | 2.894858 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 2 | 3.151285 | 5 | 3.066315 | 10 | 3.323505 | 20 | 3.301126 | 50 | 3.202842 | 100 | 3.459591 |
| tert-Butylbenzene | 2 | 2.17391 | 5 | 2.031212 | 10 | 2.135985 | 20 | 2.119383 | 50 | 2.039649 | 100 | 2.229972 |
| Carbon disulfide | 2 | 0.7149891 | 5 | 0.6924307 | 10 | 0.7993255 | 20 | 0.5551867 | 50 | 0.8103692 | 100 | 0.9498407 |
| Carbon tetrachloride | 2 | 0.2889103 | 5 | 0.2860839 | 10 | 0.288463 | 20 | 0.3030137 | 50 | 0.3080328 | 100 | 0.35016 |
| Chlorobenzene | 2 | 1.875558 | 5 | 1.771786 | 10 | 1.803756 | 20 | 1.765153 | 50 | 1.690779 | 100 | 1.905895 |
| Chloroethane | 2 | 8.705562E-02 | 5 | 7.229842E-02 | 10 | 8.957504E-02 | 20 | 8.400356E-02 | 50 | 8.288075E-02 | 100 | 8.787256E-02 |
| Chloroform | 2 | 0.4898649 | 5 | 0.4751689 | 10 | 0.4707317 | 20 | 0.4865336 | 50 | 0.457359 | 100 | 0.5020879 |
| 2-Chloroethyl vinyl ether | 3.99 | 0.1848713 | 9.975 | 0.1784075 | 19.95 | 0.1770296 | 39.9 | 0.1763524 | 99.75 | 0.1619434 | 199.5 | 0.1744515 |
| Chloromethane | 2 | 0.35766 | 5 | 0.3572945 | 10 | 0.3695839 | 20 | 0.3693712 | 50 | 0.3945523 | 100 | 0.3919691 |
| 1-Chlorohexane | 2.004 | 2.22108 | 5.01 | 2.023071 | 10.02 | 2.169874 | 20.04 | 2.118177 | 50.1 | 2.018756 | 100.2 | 2.112281 |
| 2-Chlorotoluene | 2 | 2.026203 | 5 | 2.003491 | 10 | 2.116461 | 20 | 2.10787 | 50 | 1.979201 | 100 | 2.20004 |
| 4-Chlorotoluene | 2 | 2.219507 | 5 | 2.256409 | 10 | 2.307302 | 20 | 2.295402 | 50 | 2.228706 | 100 | 2.424602 |
| Cyclohexane | 2 | 0.7461476 | 5 | 0.6373068 | 10 | 0.6643557 | 20 | 0.6754938 | 50 | 0.6609604 | 100 | 0.711204 |
| Dibromochloromethane | 2 | 0.4664542 | 5 | 0.4878683 | 10 | 0.5045771 | 20 | 0.5001025 | 50 | 0.4934865 | 100 | 0.5950801 |
| 1,2-Dibromo-3-chloropropane | 2 | 0.11204 | 5 | 0.1045764 | 10 | 0.1082321 | 20 | 0.1108009 | 50 | 0.1044906 | 100 | 0.1137534 |
| 1,2-Dibromoethane (EDB) | 2 | 0.6004558 | 5 | 0.5329797 | 10 | 0.4938069 | 20 | 0.4902496 | 50 | 0.458391 | 100 | 0.515838 |
| Dibromomethane | 2 | 0.1753952 | 5 | 0.1633735 | 10 | 0.1759811 | 20 | 0.1750685 | 50 | 0.1642084 | 100 | 0.1767537 |
| 1,2-Dichlorobenzene | 2 | 1.25758 | 5 | 1.158089 | 10 | 1.202775 | 20 | 1.190451 | 50 | 1.107789 | 100 | 1.182512 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 2 | 1.313197 | 5 | 1.280567 | 10 | 1.331553 | 20 | 1.320101 | 50 | 1.222079 | 100 | 1.308105 |
| 1,4-Dichlorobenzene | 2 | 1.397145 | 5 | 1.336716 | 10 | 1.321149 | 20 | 1.291749 | 50 | 1.239289 | 100 | 1.30013 |
| Dichlorodifluoromethane | 2 | 0.2899824 | 5 | 0.2433753 | 10 | 0.2462849 | 20 | 0.2339546 | 50 | 0.2969228 | 100 | 0.3137854 |
| 1,1-Dichloroethane | 2 | 0.5414735 | 5 | 0.5528414 | 10 | 0.6051287 | 20 | 0.5926146 | 50 | 0.5757458 | 100 | 0.6148422 |
| 1,2-Dichloroethane | 2 | 0.293543 | 5 | 0.2842689 | 10 | 0.2959148 | 20 | 0.2875738 | 50 | 0.2714845 | 100 | 0.3087262 |
| 1,1-Dichloroethene | 2 | ~~0.1672813~~ | 5 | 0.1708818 | 10 | 0.2138923 | 20 | 0.1881977 | 50 | 0.2206685 | 100 | 0.2484578 |
| cis-1,2-Dichloroethene | 2 | 0.3114254 | 5 | 0.3106307 | 10 | 0.3209246 | 20 | 0.3086273 | 50 | 0.3079395 | 100 | 0.3264114 |
| trans-1,2-Dichloroethene | 2 | 0.2866469 | 5 | 0.2498845 | 10 | 0.2830028 | 20 | 0.2781287 | 50 | 0.2772549 | 100 | 0.3027944 |
| 1,2-Dichloroethene (total) | 4 | 0.2990361 | 10 | 0.2802576 | 20 | 0.3019637 | 40 | 0.293378 | 100 | 0.2925972 | 200 | 0.3146029 |
| 1,2-Dichloropropane | 2 | 0.3763763 | 5 | 0.3682909 | 10 | 0.365142 | 20 | 0.3629965 | 50 | 0.3481348 | 100 | 0.3742469 |
| 1,3-Dichloropropane | 2 | 0.879273 | 5 | 0.7939543 | 10 | 0.8081485 | 20 | 0.7899708 | 50 | 0.73429 | 100 | 0.8173957 |
| 2,2-Dichloropropane | 2 | 0.3242779 | 5 | 0.3285206 | 10 | 0.3349875 | 20 | 0.3345004 | 50 | 0.3213804 | 100 | 0.3729991 |
| 1,1-Dichloropropene | 2 | 0.3884081 | 5 | 0.3484738 | 10 | 0.3805441 | 20 | 0.3847533 | 50 | 0.3792585 | 100 | 0.4104046 |
| cis-1,3-Dichloropropene | 2 | 0.4344839 | 5 | 0.4350143 | 10 | 0.4301103 | 20 | 0.4335544 | 50 | 0.4170583 | 100 | 0.4573277 |
| trans-1,3-Dichloropropene | 2 | 0.7683201 | 5 | 0.7138107 | 10 | 0.7232023 | 20 | 0.7117684 | 50 | 0.6927822 | 100 | 0.7933086 |
| Diisopropyl Ether | 2 | 1.643891 | 5 | 1.595466 | 10 | 1.621821 | 20 | 1.620216 | 50 | 1.573697 | 100 | 1.707769 |
| Ethylbenzene | 2 | 3.006193 | 5 | 2.923263 | 10 | 3.07896 | 20 | 3.067902 | 50 | 2.95293 | 100 | 3.41056 |
| Ethyl tert-Butyl Ether | 2 | 0.9974004 | 5 | 0.9712783 | 10 | 0.9963493 | 20 | 0.9846551 | 50 | 0.9564952 | 100 | 1.075788 |
| Ethyl Methacrylate | 2 | 0.8625155 | 5 | 0.8436295 | 10 | 0.7624561 | 20 | 0.7667309 | 50 | 0.7163738 | 100 | 0.8089864 |
| Hexachlorobutadiene | 2 | 0.4575836 | 5 | 0.4341365 | 10 | 0.4659515 | 20 | 0.4715648 | 50 | 0.4532541 | 100 | 0.5045612 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 2 | 0.248407 | 5 | 0.2548802 | 10 | 0.3049656 | 20 | 0.279838 | 50 | 0.3250018 | 100 | 0.3519559 |
| Isopropylbenzene | 2 | 2.294059 | 5 | 2.285611 | 10 | 2.452665 | 20 | 2.37677 | 50 | 2.275532 | 100 | 2.581928 |
| p-Isopropyltoluene | 2 | 2.309628 | 5 | 2.135441 | 10 | 2.337972 | 20 | 2.332356 | 50 | 2.269986 | 100 | 2.487688 |
| Methylene chloride | 2 | 0.7552542 | 5 | 0.4559193 | 10 | 0.3996641 | 20 | 0.2317498 | 50 | 0.2907731 | 100 | 0.3130779 |
| Methyl Acetate | 2 | 0.2236285 | 5 | 0.2514748 | 10 | 0.2597989 | 20 | 0.1718908 | 50 | 0.2310738 | 100 | 0.2529856 |
| Methylcyclohexane | 2 | 0.5012217 | 5 | 0.4741875 | 10 | 0.5071525 | 20 | 0.5214485 | 50 | 0.502103 | 100 | 0.5426753 |
| Naphthalene | 2 | 1.780473 | 5 | 1.614442 | 10 | 1.578626 | 20 | 1.557813 | 50 | 1.429284 | 100 | 1.560273 |
| Methyl Methacrylate | 2 | 0.48326 | 5 | 0.4803774 | 10 | 0.4711374 | 20 | 0.4626519 | 50 | 0.4558675 | 100 | 0.4859491 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 2 | 0.5759807 | 5 | 0.5826558 | 10 | 0.5951922 | 20 | 0.5754943 | 50 | 0.5694992 | 100 | 0.638687 |

# INITIAL CALIBRATION DATA
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 2 | 3.79603 | 5 | 3.545272 | 10 | 3.80743 | 20 | 3.780267 | 50 | 3.661068 | 100 | 4.13336 |
| Styrene | 2 | 1.927309 | 5 | 1.80957 | 10 | 1.873548 | 20 | 1.872612 | 50 | 1.750939 | 100 | 1.970078 |
| 1,1,2,2-Tetrachloroethane | 2 | 0.6828267 | 5 | 0.7255559 | 10 | 0.7090542 | 20 | 0.6776878 | 50 | 0.6315376 | 100 | 0.71698 |
| 1,1,1,2-Tetrachloroethane | 2 | 0.6138791 | 5 | 0.5872829 | 10 | 0.6046367 | 20 | 0.6078519 | 50 | 0.5767041 | 100 | 0.6580373 |
| tert-Butyl alcohol | 10 | 3.247147E-02 | 25 | 2.832816E-02 | 50 | 2.641692E-02 | 100 | 2.675249E-02 | 250 | 2.407234E-02 | 500 | 2.525515E-02 |
| Tetrachloroethene | 2 | 0.6411317 | 5 | 0.5516078 | 10 | 0.6071488 | 20 | 0.5940988 | 50 | 0.5687704 | 100 | 0.6485346 |
| Toluene | 2 | 1.653855 | 5 | 1.500784 | 10 | 1.608872 | 20 | 1.546331 | 50 | 1.509546 | 100 | 1.656163 |
| 1,2,3-Trichlorobenzene | 2 | 0.7095767 | 5 | 0.7003469 | 10 | 0.7116627 | 20 | 0.6956501 | 50 | 0.6350796 | 100 | 0.6810502 |
| 1,2,4-Trichlorobenzene | 2 | 0.8162488 | 5 | 0.7952111 | 10 | 0.7953906 | 20 | 0.7745676 | 50 | 0.7371004 | 100 | 0.7827231 |
| 1,1,2-Trichloroethane | 2 | 0.5007809 | 5 | 0.4659105 | 10 | 0.4662858 | 20 | 0.4427537 | 50 | 0.416613 | 100 | 0.4616935 |
| 1,1,1-Trichloroethane | 2 | 0.3368524 | 5 | 0.3178967 | 10 | 0.3316859 | 20 | 0.3398842 | 50 | 0.3373299 | 100 | 0.3698448 |
| Tetrahydrofuran | 2 | 0.2155278 | 5 | 0.1543103 | 10 | 0.118979 | 20 | 0.1078508 | 50 | 9.851796E-02 | 100 | 0.1062613 |
| Trichloroethene | 2 | 0.328765 | 5 | 0.2905771 | 10 | 0.2943873 | 20 | 0.3047147 | 50 | 0.2969598 | 100 | 0.3201752 |
| Trichlorofluoromethane | 2 | 0.4417375 | 5 | 0.4173432 | 10 | 0.4186727 | 20 | 0.4473662 | 50 | 0.4334278 | 100 | 0.4536805 |
| 1,2,3-Trichloropropane | 2 | 0.1627907 | 5 | 0.1329942 | 10 | 0.134935 | 20 | 0.1426108 | 50 | 0.1239256 | 100 | 0.1396684 |
| 1,3,5-Trimethylbenzene | 2 | 2.255114 | 5 | 2.173421 | 10 | 2.276182 | 20 | 2.202211 | 50 | 2.172413 | 100 | 2.372903 |
| 1,2,4-Trimethylbenzene | 2 | 2.309479 | 5 | 2.14176 | 10 | 2.199332 | 20 | 2.211839 | 50 | 2.158688 | 100 | 2.3911 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 2 | 0.268791 | 5 | 0.2260116 | 10 | 0.2709447 | 20 | 0.2430542 | 50 | 0.2542092 | 100 | 0.2843963 |
| Vinyl chloride | 2 | 0.2231652 | 5 | 0.1838824 | 10 | 0.1648936 | 20 | 0.1664933 | 50 | 0.2255206 | 100 | 0.2109722 |
| m,p-Xylene | 4 | 2.356566 | 10 | 2.201289 | 20 | 2.300586 | 40 | 2.335069 | 100 | 2.271009 | 200 | 2.481994 |
| o-Xylene | 2 | 2.296002 | 5 | 2.225227 | 10 | 2.338918 | 20 | 2.313981 | 50 | 2.173523 | 100 | 2.494403 |
| Vinyl acetate | 3.998 | 0.4521423 | 9.995 | 0.4534324 | 19.99 | 0.4418868 | 39.98 | 0.4271593 | 99.95 | 0.4198531 | 199.9 | 0.4560466 |
| Xylenes (total) | 6 | 2.336378 | 15 | 2.209268 | 30 | 2.313363 | 60 | 2.328039 | 150 | 2.238513 | 300 | 2.48613 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 10 | 2.774079E-02 | 25 | 0.0266787 | 50 | 2.668582E-02 | 100 | 2.719233E-02 | 250 | 2.468558E-02 | 500 | 2.532327E-02 |
| tert-Amyl ethyl ether | 2 | 0.8583258 | 5 | 0.850034 | 10 | 0.8687331 | 20 | 0.8675918 | 50 | 0.8495265 | 100 | 0.9293077 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | 4 | 0.1347026 | 10 | 0.1001498 | 20 | 0.1056507 | 40 | 0.1037585 |
| Acrolein | 750.3 | 2.838079E-02 | 1000 | 2.600032E-02 | | | | | | | | |
| Acrylonitrile | 749.7 | 0.1024932 | 999.6 | 9.546004E-02 | | | | | | | | |
| Benzene | 150 | 1.192145 | 200 | 1.155082 | | | | | | | | |
| Bromobenzene | 150 | 0.7302519 | 200 | 0.7329693 | | | | | | | | |
| Bromochloromethane | 150 | 0.1491289 | 200 | 0.1443947 | | | | | | | | |
| Tert-Amyl Methyl Ether | 150 | 0.807724 | 200 | 0.7867898 | | | | | | | | |
| Bromodichloromethane | 150 | 0.3531789 | 200 | 0.3510862 | | | | | | | | |
| Bromoform | 150 | 0.4028367 | 200 | ~~0.4128355~~ | | | | | | | | |
| Bromomethane | 150 | 0.1015578 | 200 | 0.1000582 | | | | | | | | |
| Bromofluorobenzene | | | | | 30 | 0.8230123 | 40 | 0.8034236 | 50 | 0.7644337 | 60 | 0.7687512 |
| n-Butylbenzene | 150 | 2.870467 | 200 | 2.722726 | | | | | | | | |
| 2-Butanone | | | | | 4 | 0.1613574 | 10 | 0.1735417 | 20 | 0.1780046 | 40 | 0.1810548 |
| sec-Butylbenzene | 150 | 3.480445 | 200 | 3.296109 | | | | | | | | |
| tert-Butylbenzene | 150 | 2.240936 | 200 | 2.192407 | | | | | | | | |
| Carbon disulfide | 150 | 0.9301783 | 200 | 0.8994057 | | | | | | | | |
| Carbon tetrachloride | 150 | 0.3521533 | 200 | 0.338749 | | | | | | | | |
| Chlorobenzene | 150 | 2.022008 | 200 | 2.042233 | | | | | | | | |
| Chloroethane | 150 | 8.393602E-02 | 200 | 8.074598E-02 | | | | | | | | |
| Chloroform | 150 | 0.5073668 | 200 | 0.4925365 | | | | | | | | |
| 2-Chloroethyl vinyl ether | 299.2 | 0.1762279 | 399 | 0.1688767 | | | | | | | | |
| Chloromethane | 150 | 0.3887158 | 200 | 0.3704813 | | | | | | | | |
| 1-Chlorohexane | 150.3 | 2.01726 | 200.4 | 1.885388 | | | | | | | | |
| 2-Chlorotoluene | 150 | 2.239528 | 200 | 2.201793 | | | | | | | | |
| 4-Chlorotoluene | 150 | 2.466821 | 200 | 2.43551 | | | | | | | | |
| Cyclohexane | 150 | 0.7164013 | 200 | 0.6757709 | | | | | | | | |
| Dibromochloromethane | 150 | 0.6469215 | 200 | 0.6589571 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 150 | 0.1180717 | 200 | 0.1164974 | | | | | | | | |
| 1,2-Dibromoethane (EDB) | 150 | 0.5513408 | 200 | 0.5571805 | | | | | | | | |
| Dibromomethane | 150 | 0.1775397 | 200 | 0.1716395 | | | | | | | | |
| 1,2-Dichlorobenzene | 150 | 1.205745 | 200 | 1.236032 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 150 | 1.326823 | 200 | 1.310985 | | | | | | | | |
| 1,4-Dichlorobenzene | 150 | 1.329174 | 200 | 1.311361 | | | | | | | | |
| Dichlorodifluoromethane | 150 | 0.294192 | 200 | 0.2759141 | | | | | | | | |
| 1,1-Dichloroethane | 150 | 0.6166086 | 200 | 0.5947691 | | | | | | | | |
| 1,2-Dichloroethane | 150 | 0.3026457 | 200 | 0.3034343 | | | | | | | | |
| 1,1-Dichloroethene | 150 | 0.1785913 | 200 | ~~0.2416956~~ | | | | | | | | |
| cis-1,2-Dichloroethene | 150 | 0.3297915 | 200 | 0.3192484 | | | | | | | | |
| trans-1,2-Dichloroethene | 150 | 0.2978576 | 200 | 0.2889025 | | | | | | | | |
| 1,2-Dichloroethene (total) | 300 | 0.3138245 | 400 | 0.3040755 | | | | | | | | |
| 1,2-Dichloropropane | 150 | 0.3778939 | 200 | 0.3725401 | | | | | | | | |
| 1,3-Dichloropropane | 150 | 0.8986319 | 200 | 0.8784469 | | | | | | | | |
| 2,2-Dichloropropane | 150 | 0.3617797 | 200 | 0.3482468 | | | | | | | | |
| 1,1-Dichloropropene | 150 | 0.4099157 | 200 | 0.3932496 | | | | | | | | |
| cis-1,3-Dichloropropene | 150 | 0.469431 | 200 | 0.4523565 | | | | | | | | |
| trans-1,3-Dichloropropene | 150 | 0.8248023 | 200 | 0.802177 | | | | | | | | |
| Diisopropyl Ether | 150 | 1.730807 | 200 | 1.694548 | | | | | | | | |
| Ethylbenzene | 150 | 3.651297 | 200 | 3.573134 | | | | | | | | |
| Ethyl tert-Butyl Ether | 150 | 1.079763 | 200 | 1.057801 | | | | | | | | |
| Ethyl Methacrylate | 150 | 0.8710207 | 200 | 0.8578263 | | | | | | | | |
| Hexachlorobutadiene | 150 | 0.4984486 | 200 | 0.5033677 | | | | | | | | |
| 2-Hexanone | | | | | 4 | 0.5968604 | 10 | 0.6295112 | 20 | 0.5805845 | 40 | 0.6497723 |
| Iodomethane | 150 | 0.3500682 | 200 | ~~0.3742377~~ | | | | | | | | |
| Isopropylbenzene | 150 | 2.784682 | 200 | 2.727285 | | | | | | | | |
| p-Isopropyltoluene | 150 | 2.44157 | 200 | 2.332893 | | | | | | | | |
| Methylene chloride | 150 | 0.309667 | 200 | 0.3027675 | | | | | | | | |
| Methyl Acetate | 150 | 0.2510632 | 200 | ~~0.223989~~ | | | | | | | | |
| Methylcyclohexane | 150 | 0.5392906 | 200 | 0.5146507 | | | | | | | | |
| Naphthalene | 150 | 1.643224 | 200 | 1.657041 | | | | | | | | |
| Methyl Methacrylate | 150 | 0.4831825 | 200 | 0.4512382 | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | 4 | 0.352703 | 10 | 0.3709348 | 20 | 0.3733009 | 40 | 0.3939664 |
| Methyl t-Butyl Ether | 150 | 0.6360249 | 200 | 0.6284265 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 150 | 4.002939 | 200 | 3.703082 | | | | | | | | |
| Styrene | 150 | 2.111887 | 200 | 2.10262 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 150 | 0.6980061 | 200 | 0.6850432 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 150 | 0.7068497 | 200 | 0.7111916 | | | | | | | | |
| tert-Butyl alcohol | 750 | 2.532031E-02 | 1000 | 2.506596E-02 | | | | | | | | |
| Tetrachloroethene | 150 | 0.6992434 | 200 | 0.6850495 | | | | | | | | |
| Toluene | 150 | 1.706061 | 200 | 1.604325 | | | | | | | | |
| 1,2,3-Trichlorobenzene | 150 | 0.7278232 | 200 | 0.7516194 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 150 | 0.8125712 | 200 | 0.8332477 | | | | | | | | |
| 1,1,2-Trichloroethane | 150 | 0.4953458 | 200 | 0.4956092 | | | | | | | | |
| 1,1,1-Trichloroethane | 150 | 0.3669203 | 200 | 0.3572786 | | | | | | | | |
| Tetrahydrofuran | 150 | 0.1030719 | 200 | 9.688072E-02 | | | | | | | | |
| Trichloroethene | 150 | 0.3226635 | 200 | 0.3110056 | | | | | | | | |
| Trichlorofluoromethane | 150 | 0.4505598 | 200 | 0.3669905 | | | | | | | | |
| 1,2,3-Trichloropropane | 150 | 0.1471629 | 200 | 0.1448242 | | | | | | | | |
| 1,3,5-Trimethylbenzene | 150 | 2.367285 | 200 | 2.354633 | | | | | | | | |
| 1,2,4-Trimethylbenzene | 150 | 2.425007 | 200 | 2.350211 | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 150 | 0.2343912 | 200 | 0.2778142 | | | | | | | | |
| Vinyl chloride | 150 | 0.1769872 | 200 | 0.1586922 | | | | | | | | |
| m,p-Xylene | 300 | 2.402223 | 400 | 2.220402 | | | | | | | | |
| o-Xylene | 150 | 2.704775 | 200 | 2.61654 | | | | | | | | |
| Vinyl acetate | 299.8 | 0.4630155 | 399.8 | 0.4347041 | | | | | | | | |
| Xylenes (total) | 450 | 2.503073 | 600 | 2.352449 | | | | | | | | |
| Dibromofluoromethane | | | | | 30 | 0.2954943 | 40 | 0.2974247 | 50 | 0.2871887 | 60 | 0.2881603 |
| 1,2-Dichloroethane-d4 | | | | | 30 | 5.690591E-02 | 40 | 5.565845E-02 | 50 | 5.399013E-02 | 60 | 5.358577E-02 |
| Toluene-d8 | | | | | 30 | 2.140235 | 40 | 2.122804 | 50 | 2.025309 | 60 | 2.088032 |
| tert-Amyl alcohol | 750 | 2.609744E-02 | 1000 | 2.452795E-02 | | | | | | | | |
| tert-Amyl ethyl ether | 150 | 0.9427317 | 200 | 0.9137197 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1081001 | | Instrument: | MS-VOA6 | |
| Matrix: | Water | | Calibration Dates: | 2/8/11 16:35 | 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 100 | 6.113527E-02 | 200 | 6.789272E-02 | 300 | 7.494916E-02 | 400 | ~~5.841085E-02~~ | | | | |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 70 | 0.7834868 | 30 | 0.8046764 | 30 | 0.8182797 | 30 | 0.7949773 | | | | |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 100 | 0.1426145 | 200 | 0.1579733 | 300 | 0.1625784 | 400 | 0.1390088 | | | | |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1081001 | | Instrument: | MS-VOA6 | |
| Matrix: | Water | | Calibration Dates: | 2/8/11 16:35 | 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 100 | 0.5257543 | 200 | 0.5663449 | 300 | 0.5937655 | 400 | 0.5091155 | | | | |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 100 | 0.3187762 | 200 | 0.347223 | 300 | 0.3502062 | 400 | 0.3078423 | | | | |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1081001 | Instrument: | MS-VOA6 | |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 | 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 70 | 0.2942664 | 30 | 0.2949058 | 30 | 0.2928709 | 30 | 0.2896504 | | | | |
| 1,2-Dichloroethane-d4 | 70 | 5.499892E-02 | 30 | 5.289629E-02 | 30 | 5.266519E-02 | 30 | 5.167637E-02 | | | | |
| Toluene-d8 | 70 | 2.099996 | 30 | 2.097625 | 30 | 2.134783 | 30 | 2.118841 | | | | |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 208ICV1A.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1C08024 | Injection Date: | 02/09/11 |
| Lab Sample ID: | 1C08024-ICV1 | Injection Time: | 07:37 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 104.0 | 1.113159 | 1.157594 | | 4.0 | 20 |
| Ethylbenzene | A | 100.0 | 104.9 | 3.20803 | 3.364976 | | 4.9 | 20 |
| Methyl t-Butyl Ether | A | 200.0 | 214.0 | 0.6002451 | 0.6421448 | | 7.0 | 20 |
| Toluene | A | 100.0 | 104.5 | 1.598242 | 1.670356 | | 4.5 | 20 |
| Xylenes (total) | A | 300.0 | 315.0 | 2.345902 | 2.462529 | | 5.0 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.76 | 0.7951301 | 0.8154046 | | 2.5 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.19 | 0.2924952 | 0.2943467 | | 0.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 32.03 | 5.404713E-02 | 5.770697E-02 | | 6.8 | 20 |
| Toluene-d8 | A | 30.00 | 30.25 | 2.103453 | 2.120858 | | 0.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09502 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09502-TUN1 | 0404TUNE.D | 04/04/11 19:53 |
| Calibration Check | 1D09502-CCV1 | 0404CCVE.D | 04/04/11 20:17 |
| LCS | 1D04014-BS1 | 0404LS1E.D | 04/04/11 20:42 |
| Blank | 1D04014-BLK1 | 0404BL1E.D | 04/04/11 21:55 |
| 05-SS-070-0406 | 1103257-01 | 0325701.D | 04/05/11 03:34 |
| 05-SS-073-0406-D | 1103257-02 | 0325702.D | 04/05/11 03:59 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0404TUNE.D | Injection Date: | 04/04/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 19:53 |
| Sequence: | 1D09502 | Lab Sample ID: | 1D09502-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 28.1 | PASS |
| 75 | 30 - 60% of 95 | 48.4 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.53 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 65.7 | PASS |
| 175 | 5 - 9% of 174 | 7.87 | PASS |
| 176 | 95 - 101% of 174 | 95.6 | PASS |
| 177 | 5 - 9% of 176 | 6.99 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0404CCVE.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D09502 | Injection Date: | 04/04/11 |
| Lab Sample ID: | 1D09502-CCV1 | Injection Time: | 20:17 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 98.44 | 1.113159 | 1.095768 | | -1.6 | 20 |
| Ethylbenzene | A | 100.0 | 116.2 | 3.20803 | 3.727556 | | 16.2 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 107.0 | 0.6002451 | 0.6421098 | | 7.0 | 20 |
| Toluene | A | 100.0 | 108.0 | 1.598242 | 1.726289 | | 8.0 | 20 |
| Xylenes (total) | A | 300.0 | 343.3 | 2.345902 | 2.685303 | | 14.5 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.70 | 0.7951301 | 0.9195844 | | 15.7 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.54 | 0.2924952 | 0.3074763 | | 5.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.84 | 5.404713E-02 | 5.557045E-02 | | 2.8 | 20 |
| Toluene-d8 | A | 30.00 | 34.00 | 2.103453 | 2.383711 | | 13.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09601 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09601-TUN1 | 0405TUN1.D | 04/05/11 08:29 |
| Calibration Check | 1D09601-CCV1 | 0405CCV1.D | 04/05/11 08:53 |
| LCS | 1D05004-BS1 | 0405LS1.D | 04/05/11 09:27 |
| Blank | 1D05004-BLK1 | 0405BL1.D | 04/05/11 10:41 |
| 05-SS-073-0406 | 1103257-03 | 0325703.D | 04/05/11 11:55 |
| 05-SS-078-0406 | 1103257-06 | 0325706.D | 04/05/11 12:43 |
| 05-SS-079-0406 | 1103257-07 | 0325707.D | 04/05/11 13:08 |
| 05-SS-081-0406 | 1103257-09 | 0325709.D | 04/05/11 13:56 |
| 05-SS-082-0406 | 1103257-10 | 0325710.D | 04/05/11 14:21 |
| 05-SS-083-0406 | 1103257-11 | 0325711.D | 04/05/11 14:45 |
| 05-SS-084-0406 | 1103257-12 | 0325712.D | 04/05/11 15:10 |
| 05-SS-085-0406 | 1103257-14 | 0325714.D | 04/05/11 15:34 |
| 05-SS-086-0406 | 1103257-15 | 0325715.D | 04/05/11 15:58 |
| 05-SS-086-0406-D | 1103257-16 | 0325716.D | 04/05/11 16:22 |
| 05-SS-087-0406 | 1103257-17 | 0325717.D | 04/05/11 16:47 |
| LCS Dup | 1D05004-BSD1 | 0405LSD1.D | 04/06/11 05:44 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0405TUN1.D | Injection Date: | 04/05/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 08:29 |
| Sequence: | 1D09601 | Lab Sample ID: | 1D09601-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 27 | PASS |
| 75 | 30 - 60% of 95 | 47.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.68 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 64.7 | PASS |
| 175 | 5 - 9% of 174 | 8.02 | PASS |
| 176 | 95 - 101% of 174 | 97.1 | PASS |
| 177 | 5 - 9% of 176 | 6.77 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0405CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D09601 | Injection Date: | 04/05/11 |
| Lab Sample ID: | 1D09601-CCV1 | Injection Time: | 08:53 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 89.62 | 1.113159 | 0.9976084 | | -10.4 | 20 |
| Ethylbenzene | A | 100.0 | 105.3 | 3.20803 | 3.377806 | | 5.3 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 97.60 | 0.6002451 | 0.5858586 | | -2.4 | 20 |
| Toluene | A | 100.0 | 100.2 | 1.598242 | 1.600676 | | 0.2 | 20 |
| Xylenes (total) | A | 300.0 | 313.9 | 2.345902 | 2.454964 | | 4.6 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.04 | 0.7951301 | 0.9021801 | | 13.5 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.93 | 0.2924952 | 0.3015552 | | 3.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.70 | 5.404713E-02 | 5.531092E-02 | | 2.3 | 20 |
| Toluene-d8 | A | 30.00 | 34.31 | 2.103453 | 2.405422 | | 14.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09701 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09701-TUN1 | 0406TUN1.D | 04/06/11 07:24 |
| Calibration Check | 1D09701-CCV1 | 0406CCV1.D | 04/06/11 07:49 |
| LCS | 1D06003-BS1 | 0406LS1.D | 04/06/11 08:23 |
| Blank | 1D06003-BLK1 | 0406BL1.D | 04/06/11 09:46 |
| 05-SS-074-0406 | 1103257-04RE1 | 0325704.D | 04/06/11 10:35 |
| 05-SS-080-0406 | 1103257-08RE1 | 0325708.D | 04/06/11 11:00 |
| 05-SS-074-0406 | 1D06003-MS2 | 0325704M.D | 04/06/11 18:19 |
| 05-SS-074-0406 | 1D06003-MSD2 | 0325704S.D | 04/06/11 18:44 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0406TUN1.D | Injection Date: | 04/06/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 07:24 |
| Sequence: | 1D09701 | Lab Sample ID: | 1D09701-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 29.1 | PASS |
| 75 | 30 - 60% of 95 | 47.8 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.89 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 54.7 | PASS |
| 175 | 5 - 9% of 174 | 7.63 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 7.33 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0406CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D09701 | Injection Date: | 04/06/11 |
| Lab Sample ID: | 1D09701-CCV1 | Injection Time: | 07:49 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 88.37 | 1.113159 | 0.9837086 | | -11.6 | 20 |
| Ethylbenzene | A | 100.0 | 105.4 | 3.20803 | 3.382847 | | 5.4 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 94.62 | 0.6002451 | 0.5679575 | | -5.4 | 20 |
| Toluene | A | 100.0 | 100.1 | 1.598242 | 1.600526 | | 0.1 | 20 |
| Xylenes (total) | A | 300.0 | 314.2 | 2.345902 | 2.45742 | | 4.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.50 | 0.7951301 | 0.9145318 | | 15.0 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.48 | 0.2924952 | 0.3069129 | | 4.9 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 29.55 | 5.404713E-02 | 5.323339E-02 | | -1.5 | 20 |
| Toluene-d8 | A | 30.00 | 34.23 | 2.103453 | 2.399816 | | 14.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D01013 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| TRIP BLANK 9486 | 1103257-05 | 04/01/11 11:49 | 5.00 | 5.00 |
| 05-MW-084 | 1103257-13 | 04/01/11 11:49 | 5.00 | 5.00 |
| Blank | 1D01013-BLK1 | 04/01/11 11:49 | 5.00 | 5.00 |
| LCS | 1D01013-BS1 | 04/01/11 11:49 | 5.00 | 5.00 |
| LCS Dup | 1D01013-BSD1 | 04/01/11 11:49 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC | SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) | Project: NAS Pensacola CTO JM26 Saufley

Matrix: | Laboratory ID: 1D01013-BLK1 | File ID: 0401BL1E.D

Sampled: | Prepared: | Analyzed: 04/01/11 20:17

Solids: | Preparation: 5030B | Dilution:

Batch: 1D01013 | Sequence: 1D09202 | Calibration: 1078001 | Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | Q, U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.19 | 104 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 29.02 | 96.7 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.77 | 106 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.14 | 104 | 85 - 120 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D01013 | Laboratory ID: | 1D01013-BS1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acrolein | 250.1 | 224 | 89.4 | 10 - 200 |
| Acrylonitrile | 249.9 | 247 | 98.8 | 35 - 180 |
| Benzene | 50.00 | 56.7 | 113 | 80 - 120 |
| Bromodichloromethane | 50.00 | 55.9 | 112 | 75 - 120 |
| Bromoform | 50.00 | 56.2 | 112 | 70 - 130 |
| Bromomethane | 50.00 | 48.1 | 96.2 | 30 - 145 |
| Carbon tetrachloride | 50.00 | 53.0 | 106 | 65 - 140 |
| Chlorobenzene | 50.00 | 54.9 | 110 | 80 - 120 |
| Chloroethane | 50.00 | 56.2 | 112 | 60 - 135 |
| Chloroform | 50.00 | 51.7 | 103 | 65 - 135 |
| 2-Chloroethyl vinyl ether | 99.75 | 118 | 118 | 10 - 165 |
| **Chloromethane** | **50.00** | **64.3** | **129** | **40 - 125** |
| Dibromochloromethane | 50.00 | 58.0 | 116 | 60 - 135 |
| 1,2-Dibromoethane (EDB) | 50.00 | 55.0 | 110 | 80 - 120 |
| 1,1-Dichloroethane | 50.00 | 52.1 | 104 | 70 - 135 |
| 1,2-Dichloroethane | 50.00 | 50.7 | 101 | 70 - 130 |
| 1,1-Dichloroethene | 50.00 | 54.7 | 109 | 70 - 130 |
| cis-1,2-Dichloroethene | 50.00 | 57.0 | 114 | 70 - 125 |
| trans-1,2-Dichloroethene | 50.00 | 52.4 | 105 | 60 - 140 |
| 1,2-Dichloropropane | 50.00 | 50.5 | 101 | 75 - 125 |
| cis-1,3-Dichloropropene | 50.00 | 52.7 | 105 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.00 | 59.2 | 118 | 55 - 140 |
| Ethylbenzene | 50.00 | 57.5 | 115 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 49.9 | 99.7 | 65 - 125 |
| 1,1,2,2-Tetrachloroethane | 50.00 | 52.6 | 105 | 65 - 130 |
| Tetrachloroethene | 50.00 | 55.9 | 112 | 45 - 150 |
| Toluene | 50.00 | 57.1 | 114 | 75 - 120 |
| 1,2,4-Trichlorobenzene | 50.00 | 58.2 | 116 | 65 - 135 |
| 1,1,2-Trichloroethane | 50.00 | 54.6 | 109 | 75 - 125 |
| 1,1,1-Trichloroethane | 50.00 | 52.7 | 105 | 65 - 130 |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D01013 | Laboratory ID: | 1D01013-BS1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Trichloroethene | 50.00 | 55.8 | 112 | 70 - 125 |
| Vinyl chloride | 50.00 | 58.0 | 116 | 50 - 145 |
| Xylenes (total) | 150.0 | 172 | 114 | 75 - 130 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acrolein | 250.1 | 226 | 90.5 | 1.21 | 30 | 10 - 200 |
| Acrylonitrile | 249.9 | 267 | 107 | 7.92 | 30 | 35 - 180 |
| Benzene | 50.00 | 56.5 | 113 | 0.458 | 30 | 80 - 120 |
| Bromodichloromethane | 50.00 | 58.5 | 117 | 4.50 | 30 | 75 - 120 |
| Bromoform | 50.00 | 56.3 | 113 | 0.182 | 30 | 70 - 130 |
| Bromomethane | 50.00 | 42.6 | 85.1 | 12.2 | 30 | 30 - 145 |
| Carbon tetrachloride | 50.00 | 55.0 | 110 | 3.70 | 30 | 65 - 140 |
| Chlorobenzene | 50.00 | 51.6 | 103 | 6.09 | 30 | 80 - 120 |
| Chloroethane | 50.00 | 48.0 | 96.0 | 15.7 | 30 | 60 - 135 |
| Chloroform | 50.00 | 51.7 | 103 | 0.0319 | 30 | 65 - 135 |
| 2-Chloroethyl vinyl ether | 99.75 | 115 | 116 | 2.35 | 30 | 10 - 165 |
| Chloromethane | 50.00 | 61.1 | 122 | 5.09 | 30 | 40 - 125 |
| Dibromochloromethane | 50.00 | 57.3 | 115 | 1.28 | 30 | 60 - 135 |
| 1,2-Dibromoethane (EDB) | 50.00 | 53.7 | 107 | 2.39 | 30 | 80 - 120 |
| 1,1-Dichloroethane | 50.00 | 53.8 | 108 | 3.16 | 30 | 70 - 135 |
| 1,2-Dichloroethane | 50.00 | 55.4 | 111 | 8.80 | 30 | 70 - 130 |
| 1,1-Dichloroethene | 50.00 | 57.6 | 115 | 5.21 | 30 | 70 - 130 |
| cis-1,2-Dichloroethene | 50.00 | 55.5 | 111 | 2.53 | 30 | 70 - 125 |
| trans-1,2-Dichloroethene | 50.00 | 53.5 | 107 | 1.98 | 30 | 60 - 140 |
| 1,2-Dichloropropane | 50.00 | 49.7 | 99.5 | 1.45 | 30 | 75 - 125 |
| cis-1,3-Dichloropropene | 50.00 | 51.2 | 102 | 2.83 | 30 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.00 | 55.1 | 110 | 7.09 | 30 | 55 - 140 |
| Ethylbenzene | 50.00 | 55.3 | 111 | 3.98 | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 52.1 | 104 | 4.29 | 30 | 65 - 125 |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D01013 | Laboratory ID: | 1D01013-BSD1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 50.00 | 52.4 | 105 | 0.383 | 30 | 65 - 130 |
| Tetrachloroethene | 50.00 | 52.3 | 105 | 6.69 | 30 | 45 - 150 |
| Toluene | 50.00 | 52.4 | 105 | 8.55 | 30 | 75 - 120 |
| 1,2,4-Trichlorobenzene | 50.00 | 51.2 | 102 | 12.8 | 30 | 65 - 135 |
| 1,1,2-Trichloroethane | 50.00 | 53.1 | 106 | 2.72 | 30 | 75 - 125 |
| 1,1,1-Trichloroethane | 50.00 | 54.4 | 109 | 3.15 | 30 | 65 - 130 |
| Trichloroethene | 50.00 | 56.0 | 112 | 0.440 | 30 | 70 - 125 |
| Vinyl chloride | 50.00 | 53.8 | 108 | 7.66 | 30 | 50 - 145 |
| Xylenes (total) | 150.0 | 172 | 115 | 0.219 | 30 | 75 - 130 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D04014 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-070-0406 | 1103257-01 | 04/04/11 00:00 | 4.20 | 5.00 |
| 05-SS-073-0406-D | 1103257-02 | 04/04/11 00:00 | 4.45 | 5.00 |
| Blank | 1D04014-BLK1 | 04/04/11 00:00 | 5.00 | 5.00 |
| LCS | 1D04014-BS1 | 04/04/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D04014-BLK1 | File ID: | 0404BL1E.D |
| Sampled: | | Prepared: | | Analyzed: | 04/04/11 21:55 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D04014 Sequence: 1D09502 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03038 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03093 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03324 | 111 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03030 | 101 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D04014 | Laboratory ID: | 1D04014-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.04737 | 94.7 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.05040 | 101 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.05155 | 103 | 55 - 150 |
| Toluene | 0.05000 | 0.05059 | 101 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1570 | 105 | 75 - 125 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D05004 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-073-0406 | 1103257-03 | 04/05/11 00:00 | 4.07 | 5.00 |
| 05-SS-078-0406 | 1103257-06 | 04/05/11 00:00 | 4.35 | 5.00 |
| 05-SS-079-0406 | 1103257-07 | 04/05/11 00:00 | 4.64 | 5.00 |
| 05-SS-081-0406 | 1103257-09 | 04/05/11 00:00 | 4.15 | 5.00 |
| 05-SS-082-0406 | 1103257-10 | 04/05/11 00:00 | 4.45 | 5.00 |
| 05-SS-083-0406 | 1103257-11 | 04/05/11 00:00 | 3.92 | 5.00 |
| 05-SS-084-0406 | 1103257-12 | 04/05/11 00:00 | 4.13 | 5.00 |
| 05-SS-085-0406 | 1103257-14 | 04/05/11 00:00 | 3.81 | 5.00 |
| 05-SS-086-0406 | 1103257-15 | 04/05/11 00:00 | 4.71 | 5.00 |
| 05-SS-086-0406-D | 1103257-16 | 04/05/11 00:00 | 4.14 | 5.00 |
| 05-SS-087-0406 | 1103257-17 | 04/05/11 00:00 | 4.48 | 5.00 |
| Blank | 1D05004-BLK1 | 04/05/11 00:00 | 5.00 | 5.00 |
| LCS | 1D05004-BS1 | 04/05/11 00:00 | 5.00 | 5.00 |
| LCS Dup | 1D05004-BSD1 | 04/05/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D05004-BLK1 | File ID: | 0405BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/05/11 10:41 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D05004 Sequence: 1D09601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03045 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03198 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03278 | 109 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03092 | 103 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D05004 | Laboratory ID: | 1D05004-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.04720 | 94.4 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.05149 | 103 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.05040 | 101 | 55 - 150 |
| Toluene | 0.05000 | 0.05090 | 102 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1590 | 106 | 75 - 125 |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCSD CONCENTRATION (mg/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 0.05000 | 0.04288 | 85.8 | 9.59 | 30 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.04714 | 94.3 | 8.81 | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04129 | 82.6 | 19.9 | 30 | 55 - 150 |
| Toluene | 0.05000 | 0.04864 | 97.3 | 4.54 | 30 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1458 | 97.2 | 8.65 | 30 | 75 - 125 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06003 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-074-0406 | 1103257-04RE1 | 04/06/11 00:00 | 5.18 | 5.00 |
| 05-SS-080-0406 | 1103257-08RE1 | 04/06/11 00:00 | 4.18 | 5.00 |
| Blank | 1D06003-BLK1 | 04/06/11 00:00 | 5.00 | 5.00 |
| LCS | 1D06003-BS1 | 04/06/11 00:00 | 5.00 | 5.00 |
| 05-SS-074-0406 | 1D06003-MS2 | 04/06/11 00:00 | 3.52 | 5.00 |
| 05-SS-074-0406 | 1D06003-MSD2 | 04/06/11 00:00 | 6.40 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D06003-BLK1 | File ID: | 0406BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/06/11 09:46 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D06003 Sequence: 1D09701 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03099 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03109 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03225 | 108 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03029 | 101 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D06003 | Laboratory ID: | 1D06003-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.04789 | 95.8 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.05530 | 111 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04946 | 98.9 | 55 - 150 |
| Toluene | 0.05000 | 0.05494 | 110 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1704 | 114 | 75 - 125 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

**SW8260B**

**05-SS-074-0406**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D06003

% Solids: 88.39

Source Sample Name: **1103257-04RE1**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 0.08035 | ND | 0.07451 | 92.7 | | 75 - 125 |
| Ethylbenzene | 0.08035 | ND | 0.07546 | 93.9 | | 75 - 125 |
| Methyl t-Butyl Ether | 0.08035 | ND | 0.07642 | 95.1 | | 55 - 150 |
| Toluene | 0.08035 | ND | 0.07730 | 96.2 | | 70 - 125 |
| Xylenes (total) | 0.2411 | ND | 0.2377 | 98.6 | | 75 - 125 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Benzene | 0.04419 | 0.03950 | 89.4 | 61.4 | * | 30 | 75 - 125 |
| Ethylbenzene | 0.04419 | 0.04151 | 93.9 | 58.0 | * | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 0.04419 | 0.04248 | 96.1 | 57.1 | * | 30 | 55 - 150 |
| Toluene | 0.04419 | 0.04192 | 94.9 | 59.3 | * | 30 | 70 - 125 |
| Xylenes (total) | 0.1326 | 0.1279 | 96.5 | 60.0 | * | 30 | 75 - 125 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09202 | Instrument: | MS-VOA5 |
| | | Calibration: | 1078001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09202-CCV1 ) ug/L** | | | | Lab File ID: 0401CC1E.D | | Analyzed: 04/01/11 18:19 | | |
| Bromofluorobenzene | 30.00 | 96.3 | 80 - 120 | 17.665 | 17.665 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 95.8 | 80 - 120 | 11.23 | 11.23 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 100 | 80 - 120 | 12.029 | 12.029 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 91.0 | 80 - 120 | 15.339 | 15.339 | 0.0000 | +/-1.000 | |
| **LCS (1D01013-BS1 ) ug/L** | | | | Lab File ID: 0401LS1E.D | | Analyzed: 04/01/11 18:49 | | |
| Bromofluorobenzene | 30.00 | 103 | 75 - 120 | 17.663 | 17.665 | -0.0020 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 92.9 | 85 - 115 | 11.229 | 11.23 | -0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 103 | 70 - 120 | 12.027 | 12.029 | -0.0020 | +/-1.000 | |
| Toluene-d8 | 30.00 | 97.4 | 85 - 120 | 15.347 | 15.339 | 0.0080 | +/-1.000 | |
| **Blank (1D01013-BLK1 ) ug/L** | | | | Lab File ID: 0401BL1E.D | | Analyzed: 04/01/11 20:17 | | |
| Bromofluorobenzene | 30.00 | 104 | 75 - 120 | 17.664 | 17.665 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 96.7 | 85 - 115 | 11.22 | 11.23 | -0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 106 | 70 - 120 | 12.028 | 12.029 | -0.0010 | +/-1.000 | |
| Toluene-d8 | 30.00 | 104 | 85 - 120 | 15.339 | 15.339 | 0.0000 | +/-1.000 | |
| **TRIP BLANK 9486 (1103257-05 ) ug/L** | | | | Lab File ID: 0325705.D | | Analyzed: 04/01/11 20:47 | | |
| Bromofluorobenzene | 30.00 | 107 | 75 - 120 | 17.659 | 17.665 | -0.0060 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 103 | 85 - 115 | 11.224 | 11.23 | -0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 101 | 70 - 120 | 12.022 | 12.029 | -0.0070 | +/-1.000 | |
| Toluene-d8 | 30.00 | 102 | 85 - 120 | 15.343 | 15.339 | 0.0040 | +/-1.000 | |
| **05-MW-084 (1103257-13 ) ug/L** | | | | Lab File ID: 0325713.D | | Analyzed: 04/01/11 21:47 | | |
| Bromofluorobenzene | 30.00 | 107 | 75 - 120 | 17.664 | 17.665 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 106 | 85 - 115 | 11.219 | 11.23 | -0.0110 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 105 | 70 - 120 | 12.017 | 12.029 | -0.0120 | +/-1.000 | |
| Toluene-d8 | 30.00 | 98.9 | 85 - 120 | 15.338 | 15.339 | -0.0010 | +/-1.000 | |
| **LCS Dup (1D01013-BSD1 ) ug/L** | | | | Lab File ID: 0401LD1E.D | | Analyzed: 04/02/11 04:20 | | |
| Bromofluorobenzene | 30.00 | 105 | 75 - 120 | 17.659 | 17.665 | -0.0060 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 98.1 | 85 - 115 | 11.214 | 11.23 | -0.0160 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 101 | 70 - 120 | 12.022 | 12.029 | -0.0070 | +/-1.000 | |
| Toluene-d8 | 30.00 | 93.1 | 85 - 120 | 15.333 | 15.339 | -0.0060 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09502 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09502-CCV1 ) ug/L** | | | | Lab File ID: 0404CCVE.D | | Analyzed: 04/04/11 20:17 | | |
| Bromofluorobenzene | 30.00 | 116 | 80 - 120 | 12.251 | 12.251 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 105 | 80 - 120 | 6.931 | 6.931 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 103 | 80 - 120 | 7.422 | 7.422 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 113 | 80 - 120 | 9.635 | 9.635 | 0.0000 | +/-1.000 | |
| **LCS (1D04014-BS1 ) mg/Kg wet** | | | | Lab File ID: 0404LS1E.D | | Analyzed: 04/04/11 20:42 | | |
| Bromofluorobenzene | 0.03000 | 102 | 85 - 120 | 12.247 | 12.251 | -0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 103 | 80 - 125 | 6.936 | 6.931 | 0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 101 | 75 - 140 | 7.428 | 7.422 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 103 | 85 - 115 | 9.631 | 9.635 | -0.0040 | +/-1.000 | |
| **Blank (1D04014-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0404BL1E.D | | Analyzed: 04/04/11 21:55 | | |
| Bromofluorobenzene | 0.03000 | 101 | 85 - 120 | 12.247 | 12.251 | -0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 103 | 80 - 125 | 6.926 | 6.931 | -0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 111 | 75 - 140 | 7.427 | 7.422 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 101 | 85 - 115 | 9.631 | 9.635 | -0.0040 | +/-1.000 | |
| **05-SS-070-0406 (1103257-01 ) mg/Kg dry** | | | | Lab File ID: 0325701.D | | Analyzed: 04/05/11 03:34 | | |
| Bromofluorobenzene | 0.03801 | 101 | 85 - 120 | 12.235 | 12.251 | -0.0160 | +/-1.000 | |
| Dibromofluoromethane | 0.03801 | 104 | 80 - 125 | 6.924 | 6.931 | -0.0070 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03801 | 103 | 75 - 140 | 7.416 | 7.422 | -0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03801 | 101 | 85 - 115 | 9.629 | 9.635 | -0.0060 | +/-1.000 | |
| **05-SS-073-0406-D (1103257-02 ) mg/Kg dry** | | | | Lab File ID: 0325702.D | | Analyzed: 04/05/11 03:59 | | |
| Bromofluorobenzene | 0.03615 | 97.5 | 85 - 120 | 12.242 | 12.251 | -0.0090 | +/-1.000 | |
| Dibromofluoromethane | 0.03615 | 103 | 80 - 125 | 6.921 | 6.931 | -0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03615 | 101 | 75 - 140 | 7.413 | 7.422 | -0.0090 | +/-1.000 | |
| Toluene-d8 | 0.03615 | 101 | 85 - 115 | 9.626 | 9.635 | -0.0090 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09601 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09601-CCV1 ) ug/L** | | | | Lab File ID: 0405CCV1.D | | Analyzed: 04/05/11 08:53 | | |
| Bromofluorobenzene | 30.00 | 113 | 80 - 120 | 12.232 | 12.232 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 103 | 80 - 120 | 6.912 | 6.912 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 102 | 80 - 120 | 7.403 | 7.403 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 114 | 80 - 120 | 9.616 | 9.616 | 0.0000 | +/-1.000 | |
| **LCS (1D05004-BS1 ) mg/Kg wet** | | | | Lab File ID: 0405LS1.D | | Analyzed: 04/05/11 09:27 | | |
| Bromofluorobenzene | 0.03000 | 105 | 85 - 120 | 12.235 | 12.232 | 0.0030 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 105 | 80 - 125 | 6.914 | 6.912 | 0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 104 | 75 - 140 | 7.406 | 7.403 | 0.0030 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 104 | 85 - 115 | 9.619 | 9.616 | 0.0030 | +/-1.000 | |
| **Blank (1D05004-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0405BL1.D | | Analyzed: 04/05/11 10:41 | | |
| Bromofluorobenzene | 0.03000 | 101 | 85 - 120 | 12.231 | 12.232 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 107 | 80 - 125 | 6.921 | 6.912 | 0.0090 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 109 | 75 - 140 | 7.412 | 7.403 | 0.0090 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 103 | 85 - 115 | 9.615 | 9.616 | -0.0010 | +/-1.000 | |
| **05-SS-073-0406 (1103257-03 ) mg/Kg dry** | | | | Lab File ID: 0325703.D | | Analyzed: 04/05/11 11:55 | | |
| Bromofluorobenzene | 0.03932 | 101 | 85 - 120 | 12.233 | 12.232 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03932 | 101 | 80 - 125 | 6.922 | 6.912 | 0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03932 | 103 | 75 - 140 | 7.414 | 7.403 | 0.0110 | +/-1.000 | |
| Toluene-d8 | 0.03932 | 102 | 85 - 115 | 9.617 | 9.616 | 0.0010 | +/-1.000 | |
| **05-SS-078-0406 (1103257-06 ) mg/Kg dry** | | | | Lab File ID: 0325706.D | | Analyzed: 04/05/11 12:43 | | |
| Bromofluorobenzene | 0.03676 | 101 | 85 - 120 | 12.238 | 12.232 | 0.0060 | +/-1.000 | |
| Dibromofluoromethane | 0.03676 | 101 | 80 - 125 | 6.917 | 6.912 | 0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03676 | 98.1 | 75 - 140 | 7.409 | 7.403 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03676 | 104 | 85 - 115 | 9.622 | 9.616 | 0.0060 | +/-1.000 | |
| **05-SS-079-0406 (1103257-07 ) mg/Kg dry** | | | | Lab File ID: 0325707.D | | Analyzed: 04/05/11 13:08 | | |
| Bromofluorobenzene | 0.03690 | 97.9 | 85 - 120 | 12.232 | 12.232 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03690 | 101 | 80 - 125 | 6.911 | 6.912 | -0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03690 | 102 | 75 - 140 | 7.403 | 7.403 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03690 | 103 | 85 - 115 | 9.616 | 9.616 | 0.0000 | +/-1.000 | |
| **05-SS-081-0406 (1103257-09 ) mg/Kg dry** | | | | Lab File ID: 0325709.D | | Analyzed: 04/05/11 13:56 | | |
| Bromofluorobenzene | 0.03891 | 98.7 | 85 - 120 | 12.233 | 12.232 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03891 | 103 | 80 - 125 | 6.912 | 6.912 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03891 | 95.6 | 75 - 140 | 7.414 | 7.403 | 0.0110 | +/-1.000 | |
| Toluene-d8 | 0.03891 | 102 | 85 - 115 | 9.617 | 9.616 | 0.0010 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_004
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D09601
Instrument: MS-VOA6
Calibration: 1081001

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-082-0406 (1103257-10 ) mg/Kg dry** | | | | Lab File ID: 0325710.D | | Analyzed: 04/05/11 14:21 | | |
| Bromofluorobenzene | 0.03704 | 99.1 | 85 - 120 | 12.238 | 12.232 | 0.0060 | +/-1.000 | |
| Dibromofluoromethane | 0.03704 | 102 | 80 - 125 | 6.918 | 6.912 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03704 | 97.3 | 75 - 140 | 7.419 | 7.403 | 0.0160 | +/-1.000 | |
| Toluene-d8 | 0.03704 | 102 | 85 - 115 | 9.622 | 9.616 | 0.0060 | +/-1.000 | |
| **05-SS-083-0406 (1103257-11 ) mg/Kg dry** | | | | Lab File ID: 0325711.D | | Analyzed: 04/05/11 14:45 | | |
| Bromofluorobenzene | 0.04160 | 101 | 85 - 120 | 12.235 | 12.232 | 0.0030 | +/-1.000 | |
| Dibromofluoromethane | 0.04160 | 99.0 | 80 - 125 | 6.914 | 6.912 | 0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04160 | 97.8 | 75 - 140 | 7.406 | 7.403 | 0.0030 | +/-1.000 | |
| Toluene-d8 | 0.04160 | 103 | 85 - 115 | 9.619 | 9.616 | 0.0030 | +/-1.000 | |
| **05-SS-084-0406 (1103257-12 ) mg/Kg dry** | | | | Lab File ID: 0325712.D | | Analyzed: 04/05/11 15:10 | | |
| Bromofluorobenzene | 0.03985 | 98.7 | 85 - 120 | 12.231 | 12.232 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03985 | 103 | 80 - 125 | 6.92 | 6.912 | 0.0080 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03985 | 99.1 | 75 - 140 | 7.412 | 7.403 | 0.0090 | +/-1.000 | |
| Toluene-d8 | 0.03985 | 100 | 85 - 115 | 9.615 | 9.616 | -0.0010 | +/-1.000 | |
| **05-SS-085-0406 (1103257-14 ) mg/Kg dry** | | | | Lab File ID: 0325714.D | | Analyzed: 04/05/11 15:34 | | |
| Bromofluorobenzene | 0.04724 | 99.0 | 85 - 120 | 12.239 | 12.232 | 0.0070 | +/-1.000 | |
| Dibromofluoromethane | 0.04724 | 102 | 80 - 125 | 6.918 | 6.912 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04724 | 101 | 75 - 140 | 7.41 | 7.403 | 0.0070 | +/-1.000 | |
| Toluene-d8 | 0.04724 | 104 | 85 - 115 | 9.622 | 9.616 | 0.0060 | +/-1.000 | |
| **05-SS-086-0406 (1103257-15 ) mg/Kg dry** | | | | Lab File ID: 0325715.D | | Analyzed: 04/05/11 15:58 | | |
| Bromofluorobenzene | 0.03588 | 103 | 85 - 120 | 12.235 | 12.232 | 0.0030 | +/-1.000 | |
| Dibromofluoromethane | 0.03588 | 100 | 80 - 125 | 6.914 | 6.912 | 0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03588 | 97.8 | 75 - 140 | 7.406 | 7.403 | 0.0030 | +/-1.000 | |
| Toluene-d8 | 0.03588 | 104 | 85 - 115 | 9.619 | 9.616 | 0.0030 | +/-1.000 | |
| **05-SS-086-0406-D (1103257-16 ) mg/Kg dry** | | | | Lab File ID: 0325716.D | | Analyzed: 04/05/11 16:22 | | |
| Bromofluorobenzene | 0.04037 | 108 | 85 - 120 | 12.236 | 12.232 | 0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.04037 | 101 | 80 - 125 | 6.915 | 6.912 | 0.0030 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04037 | 98.4 | 75 - 140 | 7.407 | 7.403 | 0.0040 | +/-1.000 | |
| Toluene-d8 | 0.04037 | 104 | 85 - 115 | 9.619 | 9.616 | 0.0030 | +/-1.000 | |
| **05-SS-087-0406 (1103257-17 ) mg/Kg dry** | | | | Lab File ID: 0325717.D | | Analyzed: 04/05/11 16:47 | | |
| Bromofluorobenzene | 0.03601 | 102 | 85 - 120 | 12.231 | 12.232 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03601 | 99.3 | 80 - 125 | 6.911 | 6.912 | -0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03601 | 96.5 | 75 - 140 | 7.402 | 7.403 | -0.0010 | +/-1.000 | |
| Toluene-d8 | 0.03601 | 104 | 85 - 115 | 9.615 | 9.616 | -0.0010 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09601 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **LCS Dup (1D05004-BSD1 ) mg/Kg wet** | | | | Lab File ID: 0405LSD1.D | | Analyzed: 04/06/11 05:44 | | |
| Bromofluorobenzene | 0.03000 | 104 | 85 - 120 | 12.237 | 12.232 | 0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 104 | 80 - 125 | 6.916 | 6.912 | 0.0040 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 97.0 | 75 - 140 | 7.408 | 7.403 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 108 | 85 - 115 | 9.621 | 9.616 | 0.0050 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09701 | Instrument: | MS-VOA6 |
| | | Calibration: | 108100I |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09701-CCV1 ) ug/L** | | | | Lab File ID: 0406CCV1.D | | Analyzed: 04/06/11 07:49 | | |
| Bromofluorobenzene | 30.00 | 115 | 80 - 120 | 12.238 | 12.238 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 105 | 80 - 120 | 6.917 | 6.917 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 98.5 | 80 - 120 | 7.419 | 7.419 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 114 | 80 - 120 | 9.622 | 9.622 | 0.0000 | +/-1.000 | |
| **LCS (1D06003-BS1 ) mg/Kg wet** | | | | Lab File ID: 0406LS1.D | | Analyzed: 04/06/11 08:23 | | |
| Bromofluorobenzene | 0.03000 | 108 | 85 - 120 | 12.234 | 12.238 | -0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 105 | 80 - 125 | 6.913 | 6.917 | -0.0040 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 98.0 | 75 - 140 | 7.405 | 7.419 | -0.0140 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 109 | 85 - 115 | 9.618 | 9.622 | -0.0040 | +/-1.000 | |
| **Blank (1D06003-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0406BL1.D | | Analyzed: 04/06/11 09:46 | | |
| Bromofluorobenzene | 0.03000 | 103 | 85 - 120 | 12.233 | 12.238 | -0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 104 | 80 - 125 | 6.912 | 6.917 | -0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 108 | 75 - 140 | 7.404 | 7.419 | -0.0150 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 101 | 85 - 115 | 9.617 | 9.622 | -0.0050 | +/-1.000 | |
| **05-SS-074-0406 (1103257-04RE1 ) mg/Kg dry** | | | | Lab File ID: 0325704.D | | Analyzed: 04/06/11 10:35 | | |
| Bromofluorobenzene | 0.03276 | 101 | 85 - 120 | 12.234 | 12.238 | -0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03276 | 104 | 80 - 125 | 6.903 | 6.917 | -0.0140 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03276 | 103 | 75 - 140 | 7.405 | 7.419 | -0.0140 | +/-1.000 | |
| Toluene-d8 | 0.03276 | 104 | 85 - 115 | 9.618 | 9.622 | -0.0040 | +/-1.000 | |
| **05-SS-080-0406 (1103257-08RE1 ) mg/Kg dry** | | | | Lab File ID: 0325708.D | | Analyzed: 04/06/11 11:00 | | |
| Bromofluorobenzene | 0.03834 | 97.9 | 85 - 120 | 12.228 | 12.238 | -0.0100 | +/-1.000 | |
| Dibromofluoromethane | 0.03834 | 101 | 80 - 125 | 6.917 | 6.917 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03834 | 102 | 75 - 140 | 7.419 | 7.419 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03834 | 104 | 85 - 115 | 9.622 | 9.622 | 0.0000 | +/-1.000 | |
| **Matrix Spike (1D06003-MS2 ) mg/Kg dry** | | | | Lab File ID: 0325704M.D | | Analyzed: 04/06/11 18:19 | | |
| Bromofluorobenzene | 0.04821 | 103 | 85 - 120 | 12.239 | 12.238 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.04821 | 104 | 80 - 125 | 6.918 | 6.917 | 0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04821 | 104 | 75 - 140 | 7.41 | 7.419 | -0.0090 | +/-1.000 | |
| Toluene-d8 | 0.04821 | 102 | 85 - 115 | 9.623 | 9.622 | 0.0010 | +/-1.000 | |
| **Matrix Spike Dup (1D06003-MSD2 ) mg/Kg dry** | | | | Lab File ID: 0325704S.D | | Analyzed: 04/06/11 18:44 | | |
| Bromofluorobenzene | 0.02652 | 103 | 85 - 120 | 12.233 | 12.238 | -0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.02652 | 106 | 80 - 125 | 6.922 | 6.917 | 0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.02652 | 100 | 75 - 140 | 7.414 | 7.419 | -0.0050 | +/-1.000 | |
| Toluene-d8 | 0.02652 | 106 | 85 - 115 | 9.627 | 9.622 | 0.0050 | +/-1.000 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09202 | Instrument: | MS-VOA5 |
| | | Calibration: | 1078001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09202-CCV1 )** | | | Lab File ID: 0401CC1E.D | | | Analyzed: 04/01/11 18:19 | | | |
| Fluorobenzene | 1332004 | 13.211 | 1293879 | 13.193 | 103 | 50 - 200 | 0.0180 | +/-0.50 | |
| Chlorobenzene-d5 | 825531 | 16.68 | 767535 | 16.671 | 108 | 50 - 200 | 0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 716418 | 18.709 | 652164 | 18.701 | 110 | 50 - 200 | 0.0080 | +/-0.50 | |
| **LCS (1D01013-BS1 )** | | | Lab File ID: 0401LS1E.D | | | Analyzed: 04/01/11 18:49 | | | |
| Fluorobenzene | 1479800 | 13.209 | 1332004 | 13.211 | 111 | 50 - 200 | -0.0020 | +/-0.50 | |
| Chlorobenzene-d5 | 794486 | 16.678 | 825531 | 16.68 | 96 | 50 - 200 | -0.0020 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 716950 | 18.717 | 716418 | 18.709 | 100 | 50 - 200 | 0.0080 | +/-0.50 | |
| **Blank (1D01013-BLK1 )** | | | Lab File ID: 0401BL1E.D | | | Analyzed: 04/01/11 20:17 | | | |
| Fluorobenzene | 1084711 | 13.21 | 1332004 | 13.211 | 81 | 50 - 200 | -0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 563490 | 16.679 | 825531 | 16.68 | 68 | 50 - 200 | -0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 500869 | 18.709 | 716418 | 18.709 | 70 | 50 - 200 | 0.0000 | +/-0.50 | |
| **TRIP BLANK 9486 (1103257-05 )** | | | Lab File ID: 0325705.D | | | Analyzed: 04/01/11 20:47 | | | |
| Fluorobenzene | 937989 | 13.205 | 1332004 | 13.211 | 70 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 496260 | 16.673 | 825531 | 16.68 | 60 | 50 - 200 | -0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 450605 | 18.713 | 716418 | 18.709 | 63 | 50 - 200 | 0.0040 | +/-0.50 | |
| **05-MW-084 (1103257-13 )** | | | Lab File ID: 0325713.D | | | Analyzed: 04/01/11 21:47 | | | |
| Fluorobenzene | 997840 | 13.21 | 1332004 | 13.211 | 75 | 50 - 200 | -0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 531768 | 16.678 | 825531 | 16.68 | 64 | 50 - 200 | -0.0020 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 479882 | 18.708 | 716418 | 18.709 | 67 | 50 - 200 | -0.0010 | +/-0.50 | |
| **LCS Dup (1D01013-BSD1 )** | | | Lab File ID: 0401LD1E.D | | | Analyzed: 04/02/11 04:20 | | | |
| Fluorobenzene | 1222677 | 13.205 | 1332004 | 13.211 | 92 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 699177 | 16.673 | 825531 | 16.68 | 85 | 50 - 200 | -0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 634913 | 18.703 | 716418 | 18.709 | 89 | 50 - 200 | -0.0060 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09502 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09502-CCV1 )** | | | Lab File ID: 0404CCVE.D | | | Analyzed: 04/04/11 20:17 | | | |
| Fluorobenzene | 641708 | 7.953 | 1045538 | 7.941 | 61 | 50 - 200 | 0.0120 | +/-0.50 | |
| Chlorobenzene-d5 | 240053 | 11.052 | 467017 | 11.049 | 51 | 50 - 200 | 0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 240005 | 13.451 | 451772 | 13.448 | 53 | 50 - 200 | 0.0030 | +/-0.50 | |
| **LCS (1D04014-BS1 )** | | | Lab File ID: 0404LS1E.D | | | Analyzed: 04/04/11 20:42 | | | |
| Fluorobenzene | 618504 | 7.949 | 641708 | 7.953 | 96 | 50 - 200 | -0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 255739 | 11.057 | 240053 | 11.052 | 107 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 239373 | 13.447 | 240005 | 13.451 | 100 | 50 - 200 | -0.0040 | +/-0.50 | |
| **Blank (1D04014-BLK1 )** | | | Lab File ID: 0404BL1E.D | | | Analyzed: 04/04/11 21:55 | | | |
| Fluorobenzene | 648480 | 7.949 | 641708 | 7.953 | 101 | 50 - 200 | -0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 274786 | 11.057 | 240053 | 11.052 | 114 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 251627 | 13.447 | 240005 | 13.451 | 105 | 50 - 200 | -0.0040 | +/-0.50 | |
| **05-SS-070-0406 (1103257-01 )** | | | Lab File ID: 0325701.D | | | Analyzed: 04/05/11 03:34 | | | |
| Fluorobenzene | 607454 | 7.937 | 641708 | 7.953 | 95 | 50 - 200 | -0.0160 | +/-0.50 | |
| Chlorobenzene-d5 | 258272 | 11.045 | 240053 | 11.052 | 108 | 50 - 200 | -0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 232158 | 13.435 | 240005 | 13.451 | 97 | 50 - 200 | -0.0160 | +/-0.50 | |
| **05-SS-073-0406-D (1103257-02 )** | | | Lab File ID: 0325702.D | | | Analyzed: 04/05/11 03:59 | | | |
| Fluorobenzene | 608441 | 7.934 | 641708 | 7.953 | 95 | 50 - 200 | -0.0190 | +/-0.50 | |
| Chlorobenzene-d5 | 255420 | 11.052 | 240053 | 11.052 | 106 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 224410 | 13.442 | 240005 | 13.451 | 94 | 50 - 200 | -0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09601 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09601-CCV1 )** | | | Lab File ID: 0405CCV1.D | | | Analyzed: 04/05/11 08:53 | | | |
| Fluorobenzene | 638825 | 7.934 | 1045538 | 7.941 | 61 | 50 - 200 | -0.0070 | +/-0.50 | |
| Chlorobenzene-d5 | 238428 | 11.042 | 467017 | 11.049 | 51 | 50 - 200 | -0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 244206 | 13.442 | 451772 | 13.448 | 54 | 50 - 200 | -0.0060 | +/-0.50 | |
| **LCS (1D05004-BS1 )** | | | Lab File ID: 0405LS1.D | | | Analyzed: 04/05/11 09:27 | | | |
| Fluorobenzene | 622944 | 7.937 | 638825 | 7.934 | 98 | 50 - 200 | 0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 254956 | 11.045 | 238428 | 11.042 | 107 | 50 - 200 | 0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 239661 | 13.435 | 244206 | 13.442 | 98 | 50 - 200 | -0.0070 | +/-0.50 | |
| **Blank (1D05004-BLK1 )** | | | Lab File ID: 0405BL1.D | | | Analyzed: 04/05/11 10:41 | | | |
| Fluorobenzene | 599993 | 7.934 | 638825 | 7.934 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 251800 | 11.041 | 238428 | 11.042 | 106 | 50 - 200 | -0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 225738 | 13.431 | 244206 | 13.442 | 92 | 50 - 200 | -0.0110 | +/-0.50 | |
| **05-SS-073-0406 (1103257-03 )** | | | Lab File ID: 0325703.D | | | Analyzed: 04/05/11 11:55 | | | |
| Fluorobenzene | 609496 | 7.935 | 638825 | 7.934 | 95 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 256294 | 11.043 | 238428 | 11.042 | 107 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 236266 | 13.433 | 244206 | 13.442 | 97 | 50 - 200 | -0.0090 | +/-0.50 | |
| **05-SS-078-0406 (1103257-06 )** | | | Lab File ID: 0325706.D | | | Analyzed: 04/05/11 12:43 | | | |
| Fluorobenzene | 596668 | 7.93 | 638825 | 7.934 | 93 | 50 - 200 | -0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 248286 | 11.048 | 238428 | 11.042 | 104 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 226411 | 13.438 | 244206 | 13.442 | 93 | 50 - 200 | -0.0040 | +/-0.50 | |
| **05-SS-079-0406 (1103257-07 )** | | | Lab File ID: 0325707.D | | | Analyzed: 04/05/11 13:08 | | | |
| Fluorobenzene | 591990 | 7.934 | 638825 | 7.934 | 93 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 246947 | 11.042 | 238428 | 11.042 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 210473 | 13.432 | 244206 | 13.442 | 86 | 50 - 200 | -0.0100 | +/-0.50 | |
| **05-SS-081-0406 (1103257-09 )** | | | Lab File ID: 0325709.D | | | Analyzed: 04/05/11 13:56 | | | |
| Fluorobenzene | 599248 | 7.935 | 638825 | 7.934 | 94 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 248586 | 11.043 | 238428 | 11.042 | 104 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 214465 | 13.433 | 244206 | 13.442 | 88 | 50 - 200 | -0.0090 | +/-0.50 | |
| **05-SS-082-0406 (1103257-10 )** | | | Lab File ID: 0325710.D | | | Analyzed: 04/05/11 14:21 | | | |
| Fluorobenzene | 604995 | 7.94 | 638825 | 7.934 | 95 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 252622 | 11.048 | 238428 | 11.042 | 106 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 229156 | 13.438 | 244206 | 13.442 | 94 | 50 - 200 | -0.0040 | +/-0.50 | |
| **05-SS-083-0406 (1103257-11 )** | | | Lab File ID: 0325711.D | | | Analyzed: 04/05/11 14:45 | | | |
| Fluorobenzene | 621827 | 7.937 | 638825 | 7.934 | 97 | 50 - 200 | 0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 255951 | 11.045 | 238428 | 11.042 | 107 | 50 - 200 | 0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 234781 | 13.435 | 244206 | 13.442 | 96 | 50 - 200 | -0.0070 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_004
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D09601
Instrument: MS-VOA6
Calibration: 1081001

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-084-0406 (1103257-12 )** | | | Lab File ID: 0325712.D | | | Analyzed: 04/05/11 15:10 | | | |
| Fluorobenzene | 604505 | 7.933 | 638825 | 7.934 | 95 | 50 - 200 | -0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 254593 | 11.041 | 238428 | 11.042 | 107 | 50 - 200 | -0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 224877 | 13.431 | 244206 | 13.442 | 92 | 50 - 200 | -0.0110 | +/-0.50 | |
| **05-SS-085-0406 (1103257-14 )** | | | Lab File ID: 0325714.D | | | Analyzed: 04/05/11 15:34 | | | |
| Fluorobenzene | 610958 | 7.931 | 638825 | 7.934 | 96 | 50 - 200 | -0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 252965 | 11.049 | 238428 | 11.042 | 106 | 50 - 200 | 0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 227483 | 13.439 | 244206 | 13.442 | 93 | 50 - 200 | -0.0030 | +/-0.50 | |
| **05-SS-086-0406 (1103257-15 )** | | | Lab File ID: 0325715.D | | | Analyzed: 04/05/11 15:58 | | | |
| Fluorobenzene | 608974 | 7.927 | 638825 | 7.934 | 95 | 50 - 200 | -0.0070 | +/-0.50 | |
| Chlorobenzene-d5 | 252197 | 11.045 | 238428 | 11.042 | 106 | 50 - 200 | 0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 227534 | 13.435 | 244206 | 13.442 | 93 | 50 - 200 | -0.0070 | +/-0.50 | |
| **05-SS-086-0406-D (1103257-16 )** | | | Lab File ID: 0325716.D | | | Analyzed: 04/05/11 16:22 | | | |
| Fluorobenzene | 598493 | 7.928 | 638825 | 7.934 | 94 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 249192 | 11.046 | 238428 | 11.042 | 105 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 228043 | 13.435 | 244206 | 13.442 | 93 | 50 - 200 | -0.0070 | +/-0.50 | |
| **05-SS-087-0406 (1103257-17 )** | | | Lab File ID: 0325717.D | | | Analyzed: 04/05/11 16:47 | | | |
| Fluorobenzene | 608654 | 7.934 | 638825 | 7.934 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 251957 | 11.041 | 238428 | 11.042 | 106 | 50 - 200 | -0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 228247 | 13.431 | 244206 | 13.442 | 93 | 50 - 200 | -0.0110 | +/-0.50 | |
| **LCS Dup (1D05004-BSD1 )** | | | Lab File ID: 0405LSD1.D | | | Analyzed: 04/06/11 05:44 | | | |
| Fluorobenzene | 708608 | 7.929 | 638825 | 7.934 | 111 | 50 - 200 | -0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 275074 | 11.047 | 238428 | 11.042 | 115 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 253239 | 13.437 | 244206 | 13.442 | 104 | 50 - 200 | -0.0050 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09701 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09701-CCV1 )** | | | Lab File ID: 0406CCV1.D | | | Analyzed: 04/06/11 07:49 | | | |
| Fluorobenzene | 708390 | 7.94 | 1045538 | 7.941 | 68 | 50 - 200 | -0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 264414 | 11.038 | 467017 | 11.049 | 57 | 50 - 200 | -0.0110 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 266780 | 13.438 | 451772 | 13.448 | 59 | 50 - 200 | -0.0100 | +/-0.50 | |
| **LCS (1D06003-BS1 )** | | | Lab File ID: 0406LS1.D | | | Analyzed: 04/06/11 08:23 | | | |
| Fluorobenzene | 696628 | 7.936 | 708390 | 7.94 | 98 | 50 - 200 | -0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 273053 | 11.044 | 264414 | 11.038 | 103 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 261295 | 13.434 | 266780 | 13.438 | 98 | 50 - 200 | -0.0040 | +/-0.50 | |
| **Blank (1D06003-BLK1 )** | | | Lab File ID: 0406BL1.D | | | Analyzed: 04/06/11 09:46 | | | |
| Fluorobenzene | 699510 | 7.935 | 708390 | 7.94 | 99 | 50 - 200 | -0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 301614 | 11.043 | 264414 | 11.038 | 114 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 275516 | 13.433 | 266780 | 13.438 | 103 | 50 - 200 | -0.0050 | +/-0.50 | |
| **05-SS-074-0406 (1103257-04RE1 )** | | | Lab File ID: 0325704.D | | | Analyzed: 04/06/11 10:35 | | | |
| Fluorobenzene | 683018 | 7.926 | 708390 | 7.94 | 96 | 50 - 200 | -0.0140 | +/-0.50 | |
| Chlorobenzene-d5 | 283240 | 11.044 | 264414 | 11.038 | 107 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 258653 | 13.434 | 266780 | 13.438 | 97 | 50 - 200 | -0.0040 | +/-0.50 | |
| **05-SS-080-0406 (1103257-08RE1 )** | | | Lab File ID: 0325708.D | | | Analyzed: 04/06/11 11:00 | | | |
| Fluorobenzene | 675396 | 7.94 | 708390 | 7.94 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 281517 | 11.038 | 264414 | 11.038 | 106 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 241859 | 13.428 | 266780 | 13.438 | 91 | 50 - 200 | -0.0100 | +/-0.50 | |
| **Matrix Spike (1D06003-MS2 )** | | | Lab File ID: 0325704M.D | | | Analyzed: 04/06/11 18:19 | | | |
| Fluorobenzene | 699324 | 7.941 | 708390 | 7.94 | 99 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 291381 | 11.049 | 264414 | 11.038 | 110 | 50 - 200 | 0.0110 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 273632 | 13.439 | 266780 | 13.438 | 103 | 50 - 200 | 0.0010 | +/-0.50 | |
| **Matrix Spike Dup (1D06003-MSD2 )** | | | Lab File ID: 0325704S.D | | | Analyzed: 04/06/11 18:44 | | | |
| Fluorobenzene | 699238 | 7.945 | 708390 | 7.94 | 99 | 50 - 200 | 0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 285250 | 11.043 | 264414 | 11.038 | 108 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 267996 | 13.443 | 266780 | 13.438 | 100 | 50 - 200 | 0.0050 | +/-0.50 | |

# Data for SW8270C (PAH) Forms

# HOLDING TIME SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-070-0406 | 03/29/11 07:30 | 03/30/11 08:30 | 04/07/11 15:36 | 9.38 | 14.00 | 04/08/11 23:19 | 1.32 | 40.00 | |
| 05-SS-073-0406-D | 03/29/11 07:45 | 03/30/11 08:30 | 04/07/11 15:36 | 9.37 | 14.00 | 04/08/11 23:46 | 1.34 | 40.00 | |
| 05-SS-073-0406 | 03/29/11 07:45 | 03/30/11 08:30 | 04/07/11 15:36 | 9.37 | 14.00 | 04/09/11 00:14 | 1.36 | 40.00 | |
| 05-SS-074-0406 | 03/29/11 08:25 | 03/30/11 08:30 | 04/07/11 15:36 | 9.34 | 14.00 | 04/09/11 00:42 | 1.38 | 40.00 | |
| 05-SS-078-0406 | 03/29/11 09:05 | 03/30/11 08:30 | 04/07/11 15:36 | 9.31 | 14.00 | 04/12/11 22:16 | 5.28 | 40.00 | |
| 05-SS-079-0406 | 03/29/11 09:25 | 03/30/11 08:30 | 04/07/11 15:36 | 9.30 | 14.00 | 04/09/11 02:05 | 1.44 | 40.00 | |
| 05-SS-080-0406 | 03/29/11 09:50 | 03/30/11 08:30 | 04/07/11 15:36 | 9.28 | 14.00 | 04/09/11 02:32 | 1.46 | 40.00 | |
| 05-SS-081-0406 | 03/29/11 10:35 | 03/30/11 08:30 | 04/08/11 11:20 | 10.07 | 14.00 | 04/12/11 12:27 | 4.05 | 40.00 | |
| 05-SS-082-0406 | 03/29/11 11:50 | 03/30/11 08:30 | 04/08/11 11:20 | 10.02 | 14.00 | 04/12/11 12:56 | 4.07 | 40.00 | |
| 05-SS-083-0406 | 03/29/11 12:25 | 03/30/11 08:30 | 04/08/11 11:20 | 10.00 | 14.00 | 04/12/11 13:24 | 4.09 | 40.00 | |
| 05-SS-084-0406 | 03/29/11 13:00 | 03/30/11 08:30 | 04/08/11 11:20 | 9.97 | 14.00 | 04/12/11 13:52 | 4.11 | 40.00 | |
| 05-MW-084 | 03/29/11 13:40 | 03/30/11 08:30 | 04/01/11 11:25 | 2.95 | 7.00 | 04/04/11 19:18 | 3.33 | 40.00 | |
| 05-SS-085-0406 | 03/29/11 14:25 | 03/30/11 08:30 | 04/08/11 11:20 | 9.91 | 14.00 | 04/12/11 14:20 | 4.12 | 40.00 | |
| 05-SS-086-0406 | 03/29/11 14:45 | 03/30/11 08:30 | 04/08/11 11:20 | 9.90 | 14.00 | 04/12/11 14:49 | 4.15 | 40.00 | |
| 05-SS-086-0406-D | 03/29/11 14:45 | 03/30/11 08:30 | 04/08/11 11:20 | 9.90 | 14.00 | 04/12/11 15:17 | 4.16 | 40.00 | |
| 05-SS-087-0406 | 03/29/11 15:15 | 03/30/11 08:30 | 04/08/11 11:20 | 9.88 | 14.00 | 04/12/11 15:45 | 4.18 | 40.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C06115 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C06115-TUN1 | SEQ-TUN1.D | 02/28/11 19:40 |
| Cal Standard | 1C06115-CAL1 | SEQ-CAL1.D | 02/28/11 19:58 |
| Cal Standard | 1C06115-CAL2 | SEQ-CAL2.D | 02/28/11 20:24 |
| Cal Standard | 1C06115-CAL3 | SEQ-CAL3.D | 02/28/11 20:50 |
| Cal Standard | 1C06115-CAL4 | SEQ-CAL4.D | 02/28/11 21:16 |
| Cal Standard | 1C06115-CAL5 | SEQ-CAL5.D | 02/28/11 21:42 |
| Cal Standard | 1C06115-CAL6 | SEQ-CAL6.D | 02/28/11 22:08 |
| Cal Standard | 1C06115-CAL7 | SEQ-CAL7.D | 02/28/11 22:35 |
| Cal Standard | 1C06115-CAL8 | SEQ-CAL8.D | 02/28/11 23:01 |
| MS Tune | 1C06115-TUN2 | SEQ-TUN1.D | 03/01/11 12:01 |
| Initial Cal Check | 1C06115-ICV1 | SEQ-ICV1.D | 03/01/11 12:19 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 02/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 19:40 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 54 | PASS |
| 68 | Less than 2% of 69 | 1.39 | PASS |
| 69 | Less than 200% of 198 | 52.7 | PASS |
| 70 | Less than 2% of 69 | 0.407 | PASS |
| 127 | 40 - 60% of 198 | 57.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 25.3 | PASS |
| 365 | 1 - 200% of 198 | 3.37 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 20.3 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_004
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1061004
Instrument: MS-BNA4
Matrix: Water
Calibration Dates: 2/28/11 19:58 2/28/11 23:01

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 0.2 | 0.8535207 | 0.5 | 0.873421 | 1 | 0.9064357 | 5 | 0.8395738 | 10 | 0.784535 | 20 | 0.8168652 |
| Acenaphthylene | 0.2 | 1.382044 | 0.5 | 1.218477 | 1 | 1.435272 | 5 | 1.311268 | 10 | 1.208637 | 20 | 1.217291 |
| Anthracene | 0.2 | 1.058534 | 0.5 | 1.093939 | 1 | 1.125915 | 5 | 1.133941 | 10 | 1.170225 | 20 | 1.132615 |
| Benzo(a)anthracene | 0.2 | 0.6476147 | 0.5 | 0.7623581 | 1 | 0.8156699 | 5 | 0.8984042 | 10 | 1.054533 | 20 | 0.8423353 |
| Benzo(a)pyrene | 0.2 | 1.02565 | 0.5 | 1.014554 | 1 | 1.005352 | 5 | 1.046623 | 10 | 1.13987 | 20 | 1.083464 |
| Benzo(b)fluoranthene | 0.2 | 1.352174 | 0.5 | 1.123357 | 1 | 1.241503 | 5 | 1.234178 | 10 | 1.470413 | 20 | 1.430442 |
| Benzo(g,h,i)perylene | 0.2 | 1.25079 | 0.5 | 0.9738602 | 1 | 0.9538002 | 5 | 0.8937802 | 10 | 0.8523731 | 20 | 0.9100527 |
| Benzo(k)fluoranthene | 0.2 | 1.25079 | 0.5 | 1.187413 | 1 | 1.228864 | 5 | 1.399423 | 10 | 1.350928 | 20 | 1.327367 |
| Chrysene | 0.2 | 0.7374538 | 0.5 | 0.8493865 | 1 | 0.842695 | 5 | 0.9126712 | 10 | 1.060452 | 20 | 0.7892754 |
| Dibenz(a,h)anthracene | 0.2 | 0.9186101 | 0.5 | 0.772847 | 1 | 0.7332764 | 5 | 0.807053 | 10 | 0.8074299 | 20 | 0.8601228 |
| Fluoranthene | 0.2 | 1.051742 | 0.5 | 1.162418 | 1 | 1.179913 | 5 | 1.225501 | 10 | 1.272376 | 20 | 1.210129 |
| Fluorene | 0.2 | 0.7020536 | 0.5 | 0.7674959 | 1 | 0.8242432 | 5 | 0.8055957 | 10 | 0.8027371 | 20 | 0.8141917 |
| 2-Fluorobiphenyl | 0.2 | 0.9678027 | 0.5 | 0.9267382 | 1 | 0.971158 | 5 | 0.9172978 | 10 | 0.8347461 | 20 | 0.8721172 |
| Indeno(1,2,3-cd)pyrene | 0.2 | 1.19648 | 0.5 | 1.0475 | 1 | 1.041161 | 5 | 1.035051 | 10 | 1.034813 | 20 | 1.078813 |
| 1-Methylnaphthalene | 0.2 | 1.063294 | 0.5 | 0.9409067 | 1 | 0.9548364 | 5 | 0.8620632 | 10 | 0.8000648 | 20 | 0.8432121 |
| 2-Methylnaphthalene | 0.2 | 1.091703 | 0.5 | 0.9503314 | 1 | 0.953009 | 5 | 0.8485033 | 10 | 0.790738 | 20 | 0.8347751 |
| Naphthalene | 0.2 | 1.685474 | 0.5 | 1.472423 | 1 | 1.51616 | 5 | 1.341546 | 10 | 1.240043 | 20 | 1.318205 |
| Phenanthrene | 0.2 | 1.134937 | 0.5 | 1.1581 | 1 | 1.184863 | 5 | 1.175284 | 10 | 1.202262 | 20 | 1.17303 |
| Pyrene | 0.2 | 1.092794 | 0.5 | 1.147446 | 1 | 1.174827 | 5 | 1.234693 | 10 | 1.289576 | 20 | 1.223257 |
| Terphenyl-d14 | 0.2 | 0.6118179 | 0.5 | 0.7063144 | 1 | 0.7228992 | 5 | 0.7705175 | 10 | 0.8117648 | 20 | 0.7422102 |
| 2,4,6-Tribromophenol | 0.4 | ~~6.326415E-02~~ | 1 | ~~8.579129E-02~~ | 2 | ~~0.1089983~~ | 10 | 0.1584169 | 20 | 0.1656128 | 40 | 0.175367 |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |
| Acenaphthene | 0.2 | 0.8535207 | 0.5 | 0.873421 | 1 | 0.9064357 | 5 | 0.8395738 | 10 | 0.784535 | 20 | 0.8168652 |
| Acenaphthylene | 0.2 | 1.382044 | 0.5 | 1.218477 | 1 | 1.435272 | 5 | 1.311268 | 10 | 1.208637 | 20 | 1.217291 |
| Anthracene | 0.2 | 1.058534 | 0.5 | 1.093939 | 1 | 1.125915 | 5 | 1.133941 | 10 | 1.170225 | 20 | 1.132615 |
| Benzo(a)anthracene | 0.2 | 0.6476147 | 0.5 | 0.7623581 | 1 | 0.8156699 | 5 | 0.8984042 | 10 | 1.054533 | 20 | 0.8423353 |
| Benzo(a)pyrene | 0.2 | 1.02565 | 0.5 | 1.014554 | 1 | 1.005352 | 5 | 1.046623 | 10 | 1.13987 | 20 | 1.083464 |
| Benzo(b)fluoranthene | 0.2 | 1.352174 | 0.5 | 1.123357 | 1 | 1.241503 | 5 | 1.234178 | 10 | 1.470413 | 20 | 1.430442 |
| Benzo(g,h,i)perylene | 0.2 | 1.25079 | 0.5 | 0.9738602 | 1 | 0.9538002 | 5 | 0.8937802 | 10 | 0.8523731 | 20 | 0.9100527 |
| Benzo(k)fluoranthene | 0.2 | 1.25079 | 0.5 | 1.187413 | 1 | 1.228864 | 5 | 1.399423 | 10 | 1.350928 | 20 | 1.327367 |
| Chrysene | 0.2 | 0.7374538 | 0.5 | 0.8493865 | 1 | 0.842695 | 5 | 0.9126712 | 10 | 1.060452 | 20 | 0.7892754 |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Dibenz(a,h)anthracene | 0.2 | 0.9186101 | 0.5 | 0.772847 | 1 | 0.7332764 | 5 | 0.807053 | 10 | 0.8074299 | 20 | 0.8601228 |
| Fluoranthene | 0.2 | 1.051742 | 0.5 | 1.162418 | 1 | 1.179913 | 5 | 1.225501 | 10 | 1.272376 | 20 | 1.210129 |
| Fluorene | 0.2 | 0.7020536 | 0.5 | 0.7674959 | 1 | 0.8242432 | 5 | 0.8055957 | 10 | 0.8027371 | 20 | 0.8141917 |
| 2-Fluorobiphenyl | 0.2 | 0.9678027 | 0.5 | 0.9267382 | 1 | 0.971158 | 5 | 0.9172978 | 10 | 0.8347461 | 20 | 0.8721172 |
| Indeno(1,2,3-cd)pyrene | 0.2 | 1.19648 | 0.5 | 1.0475 | 1 | 1.041161 | 5 | 1.035051 | 10 | 1.034813 | 20 | 1.078813 |
| 1-Methylnaphthalene | 0.2 | 1.063294 | 0.5 | 0.9409067 | 1 | 0.9548364 | 5 | 0.8620632 | 10 | 0.8000648 | 20 | 0.8432121 |
| 2-Methylnaphthalene | 0.2 | 1.091703 | 0.5 | 0.9503314 | 1 | 0.953009 | 5 | 0.8485033 | 10 | 0.790738 | 20 | 0.8347751 |
| Naphthalene | 0.2 | 1.685474 | 0.5 | 1.472423 | 1 | 1.51616 | 5 | 1.341546 | 10 | 1.240043 | 20 | 1.318205 |
| Phenanthrene | 0.2 | 1.134937 | 0.5 | 1.1581 | 1 | 1.184863 | 5 | 1.175284 | 10 | 1.202262 | 20 | 1.17303 |
| Pyrene | 0.2 | 1.092794 | 0.5 | 1.147446 | 1 | 1.174827 | 5 | 1.234693 | 10 | 1.289576 | 20 | 1.223257 |
| Terphenyl-d14 | 0.2 | 0.6118179 | 0.5 | 0.7063144 | 1 | 0.7228992 | 5 | 0.7705175 | 10 | 0.8117648 | 20 | 0.7422102 |
| 2,4,6-Tribromophenol | 0.4 | ~~6.326415E-02~~ | 1 | ~~8.579129E-02~~ | 2 | ~~0.1089983~~ | 10 | 0.1584169 | 20 | 0.1656128 | 40 | 0.175367 |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 40 | 0.7820316 | 50 | 0.7652934 | | | | | | | | |
| Acenaphthylene | 40 | 1.094458 | 50 | 1.018169 | | | | | | | | |
| Anthracene | 40 | 1.152126 | 50 | 1.196303 | | | | | | | | |
| Benzo(a)anthracene | 40 | 1.003107 | 50 | 0.9291589 | | | | | | | | |
| Benzo(a)pyrene | 40 | 1.080537 | 50 | 1.058466 | | | | | | | | |
| Benzo(b)fluoranthene | 40 | 1.335067 | 50 | 1.516975 | | | | | | | | |
| Benzo(g,h,i)perylene | 40 | 0.9253269 | 50 | 0.8257036 | | | | | | | | |
| Benzo(k)fluoranthene | 40 | 1.386509 | 50 | 1.229503 | | | | | | | | |
| Chrysene | 40 | 0.9474654 | 50 | 0.8935192 | | | | | | | | |
| Dibenz(a,h)anthracene | 40 | 0.8924079 | 50 | 0.7981977 | | | | | | | | |
| Fluoranthene | 40 | 1.255338 | 50 | 1.219358 | | | | | | | | |
| Fluorene | 40 | 0.7859858 | 50 | 0.8053954 | | | | | | | | |
| 2-Fluorobiphenyl | 40 | 0.8111573 | 50 | 0.8142831 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 40 | 1.109845 | 50 | 0.9998711 | | | | | | | | |
| 1-Methylnaphthalene | 40 | 0.7771338 | 50 | 0.7467535 | | | | | | | | |
| 2-Methylnaphthalene | 40 | 0.7827356 | 50 | 0.7506397 | | | | | | | | |
| Naphthalene | 40 | 1.179985 | 50 | 1.155622 | | | | | | | | |
| Phenanthrene | 40 | 1.176864 | 50 | 1.189216 | | | | | | | | |
| Pyrene | 40 | 1.276995 | 50 | 1.213951 | | | | | | | | |
| Terphenyl-d14 | 40 | 0.8018532 | 50 | 0.7661409 | | | | | | | | |
| 2,4,6-Tribromophenol | 80 | 0.1735388 | 100 | 0.164136 | | | | | | | | |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | | | | | | | | |
| Acenaphthene | 40 | 0.7820316 | 50 | 0.7652934 | | | | | | | | |
| Acenaphthylene | 40 | 1.094458 | 50 | 1.018169 | | | | | | | | |
| Anthracene | 40 | 1.152126 | 50 | 1.196303 | | | | | | | | |
| Benzo(a)anthracene | 40 | 1.003107 | 50 | 0.9291589 | | | | | | | | |
| Benzo(a)pyrene | 40 | 1.080537 | 50 | 1.058466 | | | | | | | | |
| Benzo(b)fluoranthene | 40 | 1.335067 | 50 | 1.516975 | | | | | | | | |
| Benzo(g,h,i)perylene | 40 | 0.9253269 | 50 | 0.8257036 | | | | | | | | |
| Benzo(k)fluoranthene | 40 | 1.386509 | 50 | 1.229503 | | | | | | | | |
| Chrysene | 40 | 0.9474654 | 50 | 0.8935192 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Dibenz(a,h)anthracene | 40 | 0.8924079 | 50 | 0.7981977 | | | | | | | | |
| Fluoranthene | 40 | 1.255338 | 50 | 1.219358 | | | | | | | | |
| Fluorene | 40 | 0.7859858 | 50 | 0.8053954 | | | | | | | | |
| 2-Fluorobiphenyl | 40 | 0.8111573 | 50 | 0.8142831 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 40 | 1.109845 | 50 | 0.9998711 | | | | | | | | |
| 1-Methylnaphthalene | 40 | 0.7771338 | 50 | 0.7467535 | | | | | | | | |
| 2-Methylnaphthalene | 40 | 0.7827356 | 50 | 0.7506397 | | | | | | | | |
| Naphthalene | 40 | 1.179985 | 50 | 1.155622 | | | | | | | | |
| Phenanthrene | 40 | 1.176864 | 50 | 1.189216 | | | | | | | | |
| Pyrene | 40 | 1.276995 | 50 | 1.213951 | | | | | | | | |
| Terphenyl-d14 | 40 | 0.8018532 | 50 | 0.7661409 | | | | | | | | |
| 2,4,6-Tribromophenol | 80 | 0.1735388 | 100 | 0.164136 | | | | | | | | |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | | | | | | | | |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/01/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:01 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.55 | PASS |
| 69 | Less than 200% of 198 | 50.4 | PASS |
| 70 | Less than 2% of 69 | 0.486 | PASS |
| 127 | 40 - 60% of 198 | 56.1 | PASS |
| 197 | Less than 1% of 198 | 1 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.03 | PASS |
| 275 | 10 - 30% of 198 | 25.6 | PASS |
| 365 | 1 - 200% of 198 | 3.45 | PASS |
| 441 | 0.001 - 100% of 443 | 82.1 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1C06115 | Injection Date: | 03/01/11 |
| Lab Sample ID: | 1C06115-ICV1 | Injection Time: | 12:19 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.234 | 0.8277096 | 0.8665216 | | 4.7 | 20 |
| Acenaphthylene | A | 5.000 | 5.787 | 1.235702 | 1.430186 | | 15.7 | 20 |
| Anthracene | A | 5.000 | 5.426 | 1.13295 | 1.229415 | | 8.5 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.970 | 0.8691476 | 0.9136814 | | -0.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.399 | 1.056815 | 1.141205 | | 8.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.866 | 1.338014 | 1.302123 | | -2.7 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.830 | 0.9482109 | 0.9159273 | | -3.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.796 | 1.2951 | 1.501354 | | 15.9 | 20 |
| Chrysene | A | 5.000 | 5.406 | 0.8791148 | 0.9505258 | | 8.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.789 | 0.8237431 | 0.7889492 | | -4.2 | 20 |
| Fluoranthene | A | 5.000 | 5.284 | 1.197097 | 1.265188 | | 5.7 | 20 |
| Fluorene | A | 5.000 | 5.335 | 0.7884623 | 0.8413243 | | 6.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.885 | 1.067942 | 1.043478 | | -2.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.030 | 0.8735331 | 0.8786867 | | 0.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.052 | 0.8753044 | 0.88448 | | 1.0 | 20 |
| Naphthalene | A | 5.000 | 5.217 | 1.363682 | 1.422778 | | 4.3 | 20 |
| Phenanthrene | A | 5.000 | 5.384 | 1.17432 | 1.264507 | | 7.7 | 20 |
| Pyrene | A | 5.000 | 5.486 | 1.206692 | 1.324032 | | 9.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.477 | 0.8894126 | 0.974327 | | 9.5 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.816 | 0.7416898 | 0.8626973 | | 16.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09509-TUN1 | SEQ-TUN1.D | 04/04/11 11:32 |
| Calibration Check | 1D09509-CCV1 | SEQ-CCV1.D | 04/04/11 14:11 |
| LCS | 1C31016-BS1 | C31016L1.D | 04/04/11 17:27 |
| Blank | 1C31016-BLK1 | C31016B1.D | 04/04/11 18:23 |
| 05-MW-084 | 1103257-13 | 0325713.D | 04/04/11 19:18 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/04/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 11:32 |
| Sequence: | 1D09509 | Lab Sample ID: | 1D09509-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 33.7 | PASS |
| 68 | Less than 2% of 69 | 1.51 | PASS |
| 69 | Less than 200% of 198 | 35.6 | PASS |
| 70 | Less than 2% of 69 | 0.482 | PASS |
| 127 | 40 - 60% of 198 | 47.9 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.4 | PASS |
| 275 | 10 - 30% of 198 | 29.1 | PASS |
| 365 | 1 - 200% of 198 | 4.48 | PASS |
| 441 | 0.001 - 100% of 443 | 83.7 | PASS |
| 442 | 40 - 200% of 198 | 150 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D09509 | Injection Date: | 04/04/11 |
| Lab Sample ID: | 1D09509-CCV1 | Injection Time: | 14:11 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.878 | 0.8277096 | 0.8074588 | | -2.4 | 20 |
| Acenaphthylene | A | 5.000 | 4.960 | 1.235702 | 1.225901 | | -0.8 | 20 |
| Anthracene | A | 5.000 | 4.914 | 1.13295 | 1.113501 | | -1.7 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.574 | 0.8691476 | 0.8378458 | | -8.5 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.905 | 1.056815 | 1.036706 | | -1.9 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.551 | 1.338014 | 1.217995 | | -9.0 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.161 | 0.9482109 | 0.7890567 | | -16.8 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.487 | 1.2951 | 1.421336 | | 9.7 | 20 |
| Chrysene | A | 5.000 | 4.889 | 0.8791148 | 0.8596668 | | -2.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.424 | 0.8237431 | 0.7288403 | | -11.5 | 20 |
| Fluoranthene | A | 5.000 | 4.938 | 1.197097 | 1.182246 | | -1.2 | 20 |
| Fluorene | A | 5.000 | 5.001 | 0.7884623 | 0.7886655 | | 0.03 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.248 | 1.067942 | 0.9072291 | | -15.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.586 | 0.8735331 | 0.8012969 | | -8.3 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.575 | 0.8753044 | 0.8009544 | | -8.5 | 20 |
| Naphthalene | A | 5.000 | 4.386 | 1.363682 | 1.196311 | | -12.3 | 20 |
| Phenanthrene | A | 5.000 | 4.980 | 1.17432 | 1.169713 | | -0.4 | 20 |
| Pyrene | A | 5.000 | 5.166 | 1.206692 | 1.246698 | | 3.3 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.904 | 0.8894126 | 0.8723796 | | -1.9 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.267 | 0.7416898 | 0.7813099 | | 5.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09607-TUN1 | SEQ-TUN1.D | 04/05/11 11:10 |
| Calibration Check | 1D09607-CCV1 | SEQ-CCV1.D | 04/05/11 11:31 |
| LCS Dup | 1C31016-BSD1 | C3116L2R.D | 04/05/11 12:55 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/05/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 11:10 |
| Sequence: | 1D09607 | Lab Sample ID: | 1D09607-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 50 | PASS |
| 68 | Less than 2% of 69 | 1.5 | PASS |
| 69 | Less than 200% of 198 | 48.8 | PASS |
| 70 | Less than 2% of 69 | 0.489 | PASS |
| 127 | 40 - 60% of 198 | 53.7 | PASS |
| 197 | Less than 1% of 198 | 0.662 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.71 | PASS |
| 275 | 10 - 30% of 198 | 28.6 | PASS |
| 365 | 1 - 200% of 198 | 4.25 | PASS |
| 441 | 0.001 - 100% of 443 | 79.5 | PASS |
| 442 | 40 - 200% of 198 | 158 | PASS |
| 443 | 17 - 23% of 442 | 20.2 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D09607 | Injection Date: | 04/05/11 |
| Lab Sample ID: | 1D09607-CCV1 | Injection Time: | 11:31 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.338 | 0.8277096 | 0.8836884 | | 6.8 | 20 |
| Acenaphthylene | A | 5.000 | 5.421 | 1.235702 | 1.339664 | | 8.4 | 20 |
| Anthracene | A | 5.000 | 5.089 | 1.13295 | 1.15306 | | 1.8 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.367 | 0.8691476 | 0.798171 | | -12.7 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.273 | 1.056815 | 1.114439 | | 5.5 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.726 | 1.338014 | 1.264827 | | -5.5 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.006 | 0.9482109 | 0.7597075 | | -19.9 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.778 | 1.2951 | 1.496596 | | 15.6 | 20 |
| Chrysene | A | 5.000 | 4.490 | 0.8791148 | 0.7895147 | | -10.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.711 | 0.8237431 | 0.7761675 | | -5.8 | 20 |
| Fluoranthene | A | 5.000 | 4.886 | 1.197097 | 1.169874 | | -2.3 | 20 |
| Fluorene | A | 5.000 | 5.469 | 0.7884623 | 0.8624296 | | 9.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.497 | 1.067942 | 0.9604564 | | -10.1 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.043 | 0.8735331 | 0.8810955 | | 0.9 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.005 | 0.8753044 | 0.8761927 | | 0.1 | 20 |
| Naphthalene | A | 5.000 | 4.793 | 1.363682 | 1.307124 | | -4.1 | 20 |
| Phenanthrene | A | 5.000 | 5.178 | 1.17432 | 1.216239 | | 3.6 | 20 |
| Pyrene | A | 5.000 | 5.048 | 1.206692 | 1.218342 | | 1.0 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.292 | 0.8894126 | 0.9412943 | | 5.8 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.088 | 0.7416898 | 0.7548253 | | 1.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10202 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10202-TUN1 | SEQ-TUN1.D | 04/08/11 16:29 |
| Calibration Check | 1D10202-CCV1 | SEQ-CCV1.D | 04/08/11 16:48 |
| LCS | 1D05024-BS1 | D05024L1.D | 04/08/11 20:05 |
| Blank | 1D05024-BLK1 | D05024B1.D | 04/08/11 20:32 |
| 05-SS-070-0406 | 1103257-01 | 0325701.D | 04/08/11 23:19 |
| 05-SS-073-0406-D | 1103257-02 | 0325702.D | 04/08/11 23:46 |
| 05-SS-073-0406 | 1103257-03 | 0325703.D | 04/09/11 00:14 |
| 05-SS-074-0406 | 1103257-04 | 0325704.D | 04/09/11 00:42 |
| 05-SS-074-0406 | 1D05024-MS1 | 0325704M.D | 04/09/11 01:09 |
| 05-SS-074-0406 | 1D05024-MSD1 | 0325704S.D | 04/09/11 01:37 |
| 05-SS-079-0406 | 1103257-07 | 0325707.D | 04/09/11 02:05 |
| 05-SS-080-0406 | 1103257-08 | 0325708.D | 04/09/11 02:32 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/08/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 16:29 |
| Sequence: | 1D10202 | Lab Sample ID: | 1D10202-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 34.5 | PASS |
| 68 | Less than 2% of 69 | 1.66 | PASS |
| 69 | Less than 200% of 198 | 36.8 | PASS |
| 70 | Less than 2% of 69 | 0.458 | PASS |
| 127 | 40 - 60% of 198 | 49.5 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.48 | PASS |
| 275 | 10 - 30% of 198 | 28.8 | PASS |
| 365 | 1 - 200% of 198 | 4.26 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 150 | PASS |
| 443 | 17 - 23% of 442 | 20.1 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10202 | Injection Date: | 04/08/11 |
| Lab Sample ID: | 1D10202-CCV1 | Injection Time: | 16:48 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.756 | 0.8277096 | 0.7873346 | | -4.9 | 20 |
| Acenaphthylene | A | 5.000 | 4.860 | 1.235702 | 1.201161 | | -2.8 | 20 |
| Anthracene | A | 5.000 | 5.084 | 1.13295 | 1.151959 | | 1.7 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.248 | 0.8691476 | 0.7753822 | | -15.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.058 | 1.056815 | 1.069013 | | 1.2 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.430 | 1.338014 | 1.453012 | | 8.6 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.468 | 0.9482109 | 0.8472981 | | -10.6 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.080 | 1.2951 | 1.315789 | | 1.6 | 20 |
| Chrysene | A | 5.000 | 4.090 | 0.8791148 | 0.7190794 | | -18.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.810 | 0.8237431 | 0.792385 | | -3.8 | 20 |
| Fluoranthene | A | 5.000 | 4.639 | 1.197097 | 1.110741 | | -7.2 | 20 |
| Fluorene | A | 5.000 | 5.030 | 0.7884623 | 0.7931406 | | 0.6 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.535 | 1.067942 | 0.9686033 | | -9.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.522 | 0.8735331 | 0.7900686 | | -9.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.680 | 0.8753044 | 0.8193648 | | -6.4 | 20 |
| Naphthalene | A | 5.000 | 4.482 | 1.363682 | 1.222377 | | -10.4 | 20 |
| Phenanthrene | A | 5.000 | 4.927 | 1.17432 | 1.157122 | | -1.5 | 20 |
| Pyrene | A | 5.000 | 4.550 | 1.206692 | 1.098022 | | -9.0 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.646 | 0.8894126 | 0.8264846 | | -7.1 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.842 | 0.7416898 | 0.7182827 | | -3.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10409 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10409-TUN1 | SEQ-TUN1.D | 04/12/11 10:41 |
| Calibration Check | 1D10409-CCV1 | SEQ-CCV1.D | 04/12/11 11:02 |
| LCS | 1D07009-BS1 | D07009L1.D | 04/12/11 11:30 |
| Blank | 1D07009-BLK1 | D07009B1.D | 04/12/11 11:59 |
| 05-SS-081-0406 | 1103257-09 | 0325709.D | 04/12/11 12:27 |
| 05-SS-082-0406 | 1103257-10 | 0325710.D | 04/12/11 12:56 |
| 05-SS-083-0406 | 1103257-11 | 0325711.D | 04/12/11 13:24 |
| 05-SS-084-0406 | 1103257-12 | 0325712.D | 04/12/11 13:52 |
| 05-SS-085-0406 | 1103257-14 | 0325714.D | 04/12/11 14:20 |
| 05-SS-086-0406 | 1103257-15 | 0325715.D | 04/12/11 14:49 |
| 05-SS-086-0406-D | 1103257-16 | 0325716.D | 04/12/11 15:17 |
| 05-SS-087-0406 | 1103257-17 | 0325717.D | 04/12/11 15:45 |
| 05-SS-078-0406 | 1103257-06 | 0325706.D | 04/12/11 22:16 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/12/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 10:41 |
| Sequence: | 1D10409 | Lab Sample ID: | 1D10409-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 50.8 | PASS |
| 68 | Less than 2% of 69 | 1.61 | PASS |
| 69 | Less than 200% of 198 | 49.4 | PASS |
| 70 | Less than 2% of 69 | 0.478 | PASS |
| 127 | 40 - 60% of 198 | 54.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.67 | PASS |
| 275 | 10 - 30% of 198 | 28 | PASS |
| 365 | 1 - 200% of 198 | 4.28 | PASS |
| 441 | 0.001 - 100% of 443 | 83.4 | PASS |
| 442 | 40 - 200% of 198 | 158 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10409 | Injection Date: | 04/12/11 |
| Lab Sample ID: | 1D10409-CCV1 | Injection Time: | 11:02 |

| COMPOUND | TYPE | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.867 | 0.8277096 | 0.8056366 | | -2.7 | 20 |
| Acenaphthylene | A | 5.000 | 4.938 | 1.235702 | 1.220375 | | -1.2 | 20 |
| Anthracene | A | 5.000 | 5.032 | 1.13295 | 1.140116 | | 0.6 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.350 | 0.8691476 | 0.7949709 | | -13.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.088 | 1.056815 | 1.075335 | | 1.8 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.013 | 1.338014 | 1.341406 | | 0.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.724 | 0.9482109 | 0.8958028 | | -5.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.236 | 1.2951 | 1.356348 | | 4.7 | 20 |
| Chrysene | A | 5.000 | 4.490 | 0.8791148 | 0.7894523 | | -10.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.047 | 0.8237431 | 0.8314567 | | 0.9 | 20 |
| Fluoranthene | A | 5.000 | 4.644 | 1.197097 | 1.111838 | | -7.1 | 20 |
| Fluorene | A | 5.000 | 5.165 | 0.7884623 | 0.8144288 | | 3.3 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.935 | 1.067942 | 1.054136 | | -1.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.610 | 0.8735331 | 0.8053416 | | -7.8 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.721 | 0.8753044 | 0.8264418 | | -5.6 | 20 |
| Naphthalene | A | 5.000 | 4.474 | 1.363682 | 1.220203 | | -10.5 | 20 |
| Phenanthrene | A | 5.000 | 4.756 | 1.17432 | 1.117082 | | -4.9 | 20 |
| Pyrene | A | 5.000 | 4.694 | 1.206692 | 1.132798 | | -6.1 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.650 | 0.8894126 | 0.827086 | | -7.0 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.820 | 0.7416898 | 0.7150458 | | -3.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C31016 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-084 | 1103257-13 | 04/01/11 11:25 | 1,020.00 | 1.00 |
| Blank | 1C31016-BLK1 | 04/01/11 11:25 | 1,000.00 | 1.00 |
| LCS | 1C31016-BS1 | 04/01/11 11:25 | 1,000.00 | 1.00 |
| LCS Dup | 1C31016-BSD1 | 04/01/11 11:25 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C31016-BLK1 | File ID: | C31016B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/04/11 18:23 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1C31016 Sequence: 1D09509 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 34.56 | 69.1 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 39.08 | 78.2 | 34 - 167 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C31016 | Laboratory ID: | 1C31016-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 1.000 | 0.9832 | 98.3 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.7971 | 79.7 | 43 - 140 |
| Anthracene | 1.000 | 0.9729 | 97.3 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 1.028 | 103 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.7949 | 79.5 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.8323 | 83.2 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.7324 | 73.2 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 1.169 | 117 | 49 - 165 |
| Chrysene | 1.000 | 0.9904 | 99.0 | 51 - 155 |
| Dibenz(a,h)anthracene | 1.000 | 0.6242 | 62.4 | 28 - 153 |
| Fluoranthene | 1.000 | 1.005 | 101 | 47 - 158 |
| Fluorene | 1.000 | 1.019 | 102 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.7087 | 70.9 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.8601 | 86.0 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.8521 | 85.2 | 36 - 121 |
| Naphthalene | 1.000 | 0.8167 | 81.7 | 39 - 125 |
| Phenanthrene | 1.000 | 1.037 | 104 | 46 - 144 |
| Pyrene | 1.000 | 1.003 | 100 | 39 - 158 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 1.000 | 0.8563 | 85.6 | 13.8 | 30 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.7513 | 75.1 | 5.92 | 30 | 43 - 140 |
| Anthracene | 1.000 | 0.8317 | 83.2 | 15.6 | 30 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 1.013 | 101 | 1.51 | 30 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.7458 | 74.6 | 6.38 | 30 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.8203 | 82.0 | 1.45 | 30 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.6758 | 67.6 | 8.03 | 30 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 0.9374 | 93.7 | 22.0 | 30 | 49 - 165 |
| Chrysene | 1.000 | 0.9356 | 93.6 | 5.70 | 30 | 51 - 155 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C31016 | Laboratory ID: | 1C31016-BSD1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 1.000 | 0.6106 | 61.1 | 2.19 | 30 | 28 - 153 |
| Fluoranthene | 1.000 | 0.9436 | 94.4 | 6.33 | 30 | 47 - 158 |
| Fluorene | 1.000 | 0.9545 | 95.4 | 6.52 | 30 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.6836 | 68.4 | 3.60 | 30 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.7580 | 75.8 | 12.6 | 30 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.7900 | 79.0 | 7.57 | 30 | 36 - 121 |
| Naphthalene | 1.000 | 0.7428 | 74.3 | 9.49 | 30 | 39 - 125 |
| Phenanthrene | 1.000 | 0.9480 | 94.8 | 8.95 | 30 | 46 - 144 |
| Pyrene | 1.000 | 0.9662 | 96.6 | 3.76 | 30 | 39 - 158 |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D05024 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-070-0406 | 1103257-01 | 04/07/11 15:36 | 15.60 | 1.00 |
| 05-SS-073-0406-D | 1103257-02 | 04/07/11 15:36 | 15.30 | 1.00 |
| 05-SS-073-0406 | 1103257-03 | 04/07/11 15:36 | 15.40 | 1.00 |
| 05-SS-074-0406 | 1103257-04 | 04/07/11 15:36 | 15.80 | 1.00 |
| 05-SS-078-0406 | 1103257-06 | 04/07/11 15:36 | 15.30 | 1.00 |
| 05-SS-079-0406 | 1103257-07 | 04/07/11 15:36 | 15.10 | 1.00 |
| 05-SS-080-0406 | 1103257-08 | 04/07/11 15:36 | 15.60 | 1.00 |
| Blank | 1D05024-BLK1 | 04/07/11 15:36 | 15.00 | 1.00 |
| LCS | 1D05024-BS1 | 04/07/11 15:36 | 15.00 | 1.00 |
| 05-SS-074-0406 | 1D05024-MS1 | 04/07/11 15:36 | 15.10 | 1.00 |
| 05-SS-074-0406 | 1D05024-MSD1 | 04/07/11 15:36 | 15.50 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Matrix: Laboratory ID: 1D05024-BLK1 File ID: D05024B1.D

Sampled: Prepared: Analyzed: 04/08/11 20:32

Solids: Preparation: EXT_3546 Dilution:

Batch: 1D05024 Sequence: 1D10202 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg wet) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.0133 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.0133 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.0133 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.0133 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.0133 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.357 | 101 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 3.647 | 109 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D05024 | Laboratory ID: | 1D05024-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.06807 | 102 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.05799 | 87.0 | 23 - 126 |
| Anthracene | 0.06667 | 0.07074 | 106 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.07302 | 110 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.05474 | 82.1 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.06603 | 99.0 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.05548 | 83.2 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.06836 | 103 | 42 - 129 |
| Chrysene | 0.06667 | 0.06072 | 91.1 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.06667 | 0.05628 | 84.4 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.06355 | 95.3 | 30 - 142 |
| Fluorene | 0.06667 | 0.07104 | 107 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.05140 | 77.1 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.06457 | 96.8 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.06811 | 102 | 30 - 111 |
| Naphthalene | 0.06667 | 0.06622 | 99.3 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.07110 | 107 | 32 - 127 |
| Pyrene | 0.06667 | 0.06605 | 99.1 | 28 - 130 |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D07009 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-081-0406 | 1103257-09 | 04/08/11 11:20 | 15.00 | 1.00 |
| 05-SS-082-0406 | 1103257-10 | 04/08/11 11:20 | 15.30 | 1.00 |
| 05-SS-083-0406 | 1103257-11 | 04/08/11 11:20 | 15.30 | 1.00 |
| 05-SS-084-0406 | 1103257-12 | 04/08/11 11:20 | 15.60 | 1.00 |
| 05-SS-085-0406 | 1103257-14 | 04/08/11 11:20 | 15.20 | 1.00 |
| 05-SS-086-0406 | 1103257-15 | 04/08/11 11:20 | 15.10 | 1.00 |
| 05-SS-086-0406-D | 1103257-16 | 04/08/11 11:20 | 15.50 | 1.00 |
| 05-SS-087-0406 | 1103257-17 | 04/08/11 11:20 | 15.10 | 1.00 |
| Blank | 1D07009-BLK1 | 04/08/11 11:20 | 15.00 | 1.00 |
| LCS | 1D07009-BS1 | 04/08/11 11:20 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Matrix: Laboratory ID: 1D07009-BLK1 File ID: D07009B1.D

Sampled: Prepared: Analyzed: 04/12/11 11:59

~~Solids:~~ Preparation: EXT_3546 Dilution:

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.0133 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.0133 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.0133 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.0133 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.0133 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.820 | 84.6 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 3.085 | 92.5 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D07009 | Laboratory ID: | 1D07009-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.06365 | 95.5 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.05382 | 80.7 | 23 - 126 |
| Anthracene | 0.06667 | 0.05937 | 89.1 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.06034 | 90.5 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.04850 | 72.8 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.05335 | 80.0 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.05365 | 80.5 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.06198 | 93.0 | 42 - 129 |
| Chrysene | 0.06667 | 0.05234 | 78.5 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.06667 | 0.05299 | 79.5 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.05640 | 84.6 | 30 - 142 |
| Fluorene | 0.06667 | 0.06503 | 97.5 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.05286 | 79.3 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.06076 | 91.1 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.06750 | 101 | 30 - 111 |
| Naphthalene | 0.06667 | 0.06057 | 90.9 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.06258 | 93.9 | 32 - 127 |
| Pyrene | 0.06667 | 0.05632 | 84.5 | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

05-SS-074-0406

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

~~Matrix:~~ ~~Solid~~

Batch: 1D05024

% Solids: 88.39

Source Sample Name: **1103257-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 0.07493 | ND | 0.07341 | 98.0 | | 28 - 110 |
| Acenaphthylene | 0.07493 | ND | 0.06370 | 85.0 | | 23 - 126 |
| Anthracene | 0.07493 | ND | 0.07369 | 98.4 | | 28 - 136 |
| Benzo(a)anthracene | 0.07493 | ND | 0.08648 | 115 | | 31 - 146 |
| Benzo(a)pyrene | 0.07493 | ND | 0.06618 | 88.3 | | 28 - 128 |
| Benzo(b)fluoranthene | 0.07493 | ND | 0.06806 | 90.8 | | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07493 | ND | 0.06368 | 85.0 | | 21 - 149 |
| Benzo(k)fluoranthene | 0.07493 | ND | 0.07101 | 94.8 | | 42 - 129 |
| Chrysene | 0.07493 | ND | 0.06895 | 92.0 | | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07493 | ND | 0.06191 | 82.6 | | 30 - 138 |
| Fluoranthene | 0.07493 | ND | 0.07604 | 101 | | 30 - 142 |
| Fluorene | 0.07493 | ND | 0.07862 | 105 | | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07493 | ND | 0.05964 | 79.6 | | 17 - 164 |
| 1-Methylnaphthalene | 0.07493 | ND | 0.06713 | 89.6 | | 30 - 111 |
| 2-Methylnaphthalene | 0.07493 | ND | 0.07239 | 96.6 | | 30 - 111 |
| Naphthalene | 0.07493 | ND | 0.06863 | 91.6 | | 29 - 106 |
| Phenanthrene | 0.07493 | ND | 0.07942 | 106 | | 32 - 127 |
| Pyrene | 0.07493 | ND | 0.07739 | 103 | | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

05-SS-074-0406

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D05024

% Solids: 88.39

Source Sample Name: **1103257-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.07299 | 0.07651 | 105 | 4.13 | | 30 | 28 - 110 |
| Acenaphthylene | 0.07299 | 0.06676 | 91.5 | 4.69 | | 30 | 23 - 126 |
| Anthracene | 0.07299 | 0.07645 | 105 | 3.67 | | 30 | 28 - 136 |
| Benzo(a)anthracene | 0.07299 | 0.07994 | 110 | 7.87 | | 30 | 31 - 146 |
| Benzo(a)pyrene | 0.07299 | 0.06939 | 95.1 | 4.73 | | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 0.07299 | 0.07207 | 98.7 | 5.73 | | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07299 | 0.06422 | 88.0 | 0.836 | | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 0.07299 | 0.07694 | 105 | 8.01 | | 30 | 42 - 129 |
| Chrysene | 0.07299 | 0.06567 | 90.0 | 4.87 | | 30 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07299 | 0.06205 | 85.0 | 0.219 | | 30 | 30 - 138 |
| Fluoranthene | 0.07299 | 0.07532 | 103 | 0.947 | | 30 | 30 - 142 |
| Fluorene | 0.07299 | 0.08222 | 113 | 4.48 | | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07299 | 0.06027 | 82.6 | 1.05 | | 30 | 17 - 164 |
| 1-Methylnaphthalene | 0.07299 | 0.07473 | 102 | 10.7 | | 30 | 30 - 111 |
| 2-Methylnaphthalene | 0.07299 | 0.07602 | 104 | 4.89 | | 30 | 30 - 111 |
| Naphthalene | 0.07299 | 0.07574 | 104 | 9.85 | | 30 | 29 - 106 |
| Phenanthrene | 0.07299 | 0.08272 | 113 | 4.07 | | 30 | 32 - 127 |
| Pyrene | 0.07299 | 0.07808 | 107 | 0.882 | | 30 | 28 - 130 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09509-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/04/11 14:11 | | |
| 2-Fluorobiphenyl | 5.000 | 98.1 | 80 - 120 | 8.434 | 8.434 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 105 | 80 - 120 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |
| **LCS (1C31016-BS1 ) ug/L** | | | | Lab File ID: C31016L1.D | | Analyzed: 04/04/11 17:27 | | |
| 2-Fluorobiphenyl | 50.00 | 74.5 | 34 - 167 | 8.435 | 8.434 | 0.0010 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 72.9 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **Blank (1C31016-BLK1 ) ug/L** | | | | Lab File ID: C31016B1.D | | Analyzed: 04/04/11 18:23 | | |
| 2-Fluorobiphenyl | 50.00 | 69.1 | 34 - 167 | 8.435 | 8.434 | 0.0010 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 78.2 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |
| **05-MW-084 (1103257-13 ) ug/L** | | | | Lab File ID: 0325713.D | | Analyzed: 04/04/11 19:18 | | |
| 2-Fluorobiphenyl | 49.02 | 65.2 | 34 - 167 | 8.435 | 8.434 | 0.0010 | +/-0.500 | |
| Terphenyl-d14 | 49.02 | 32.8 | 34 - 167 | 14.124 | 14.124 | 0.0000 | +/-0.500 | * |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09607-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/05/11 11:31 | | |
| 2-Fluorobiphenyl | 5.000 | 106 | 80 - 120 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 102 | 80 - 120 | 14.124 | 14.124 | 0.0000 | +/-0.500 | |
| **LCS Dup (1C31016-BSD1 ) ug/L** | | | | Lab File ID: C3116L2R.D | | Analyzed: 04/05/11 12:55 | | |
| 2-Fluorobiphenyl | 50.00 | 69.7 | 34 - 167 | 8.435 | 8.435 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 66.0 | 34 - 167 | 14.133 | 14.124 | 0.0090 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10202 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10202-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/08/11 16:48 | | |
| 2-Fluorobiphenyl | 5.000 | 92.9 | 80 - 120 | 8.355 | 8.355 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 96.8 | 80 - 120 | 14.035 | 14.035 | 0.0000 | +/-0.500 | |
| **LCS (1D05024-BS1 ) mg/Kg wet** | | | | Lab File ID: D05024L1.D | | Analyzed: 04/08/11 20:05 | | |
| 2-Fluorobiphenyl | 3.333 | 89.2 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 96.0 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **Blank (1D05024-BLK1 ) mg/Kg wet** | | | | Lab File ID: D05024B1.D | | Analyzed: 04/08/11 20:32 | | |
| 2-Fluorobiphenyl | 3.333 | 101 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 109 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-070-0406 (1103257-01 ) mg/Kg dry** | | | | Lab File ID: 0325701.D | | Analyzed: 04/08/11 23:19 | | |
| 2-Fluorobiphenyl | 3.412 | 83.1 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.412 | 91.8 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-073-0406-D (1103257-02 ) mg/Kg dry** | | | | Lab File ID: 0325702.D | | Analyzed: 04/08/11 23:46 | | |
| 2-Fluorobiphenyl | 3.505 | 84.6 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.505 | 96.4 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-073-0406 (1103257-03 ) mg/Kg dry** | | | | Lab File ID: 0325703.D | | Analyzed: 04/09/11 00:14 | | |
| 2-Fluorobiphenyl | 3.464 | 91.3 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.464 | 89.9 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-074-0406 (1103257-04 ) mg/Kg dry** | | | | Lab File ID: 0325704.D | | Analyzed: 04/09/11 00:42 | | |
| 2-Fluorobiphenyl | 3.580 | 85.6 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.580 | 87.0 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **Matrix Spike (1D05024-MS1 ) mg/Kg dry** | | | | Lab File ID: 0325704M.D | | Analyzed: 04/09/11 01:09 | | |
| 2-Fluorobiphenyl | 3.746 | 85.3 | 14 - 129 | 8.355 | 8.355 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.746 | 92.9 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **Matrix Spike Dup (1D05024-MSD1 ) mg/Kg dry** | | | | Lab File ID: 0325704S.D | | Analyzed: 04/09/11 01:37 | | |
| 2-Fluorobiphenyl | 3.650 | 94.3 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.650 | 99.7 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-079-0406 (1103257-07 ) mg/Kg dry** | | | | Lab File ID: 0325707.D | | Analyzed: 04/09/11 02:05 | | |
| 2-Fluorobiphenyl | 3.779 | 93.1 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.779 | 92.7 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |
| **05-SS-080-0406 (1103257-08 ) mg/Kg dry** | | | | Lab File ID: 0325708.D | | Analyzed: 04/09/11 02:32 | | |
| 2-Fluorobiphenyl | 3.425 | 94.2 | 14 - 129 | 8.365 | 8.355 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 3.425 | 91.4 | 14 - 129 | 14.045 | 14.035 | 0.0100 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10409 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10409-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/12/11 11:02 | | |
| 2-Fluorobiphenyl | 5.000 | 93.0 | 80 - 120 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 96.4 | 80 - 120 | 13.981 | 13.981 | 0.0000 | +/-0.500 | |
| **LCS (1D07009-BS1 ) mg/Kg wet** | | | | Lab File ID: D07009L1.D | | Analyzed: 04/12/11 11:30 | | |
| 2-Fluorobiphenyl | 3.333 | 83.2 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 83.2 | 14 - 129 | 13.99 | 13.981 | 0.0090 | +/-0.500 | |
| **Blank (1D07009-BLK1 ) mg/Kg wet** | | | | Lab File ID: D07009B1.D | | Analyzed: 04/12/11 11:59 | | |
| 2-Fluorobiphenyl | 3.333 | 84.6 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 92.5 | 14 - 129 | 14 | 13.981 | 0.0190 | +/-0.500 | |
| **05-SS-081-0406 (1103257-09 ) mg/Kg dry** | | | | Lab File ID: 0325709.D | | Analyzed: 04/12/11 12:27 | | |
| 2-Fluorobiphenyl | 3.588 | 88.1 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.588 | 79.8 | 14 - 129 | 13.99 | 13.981 | 0.0090 | +/-0.500 | |
| **05-SS-082-0406 (1103257-10 ) mg/Kg dry** | | | | Lab File ID: 0325710.D | | Analyzed: 04/12/11 12:56 | | |
| 2-Fluorobiphenyl | 3.591 | 86.6 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.591 | 81.3 | 14 - 129 | 13.99 | 13.981 | 0.0090 | +/-0.500 | |
| **05-SS-083-0406 (1103257-11 ) mg/Kg dry** | | | | Lab File ID: 0325711.D | | Analyzed: 04/12/11 13:24 | | |
| 2-Fluorobiphenyl | 3.553 | 82.9 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.553 | 80.2 | 14 - 129 | 13.99 | 13.981 | 0.0090 | +/-0.500 | |
| **05-SS-084-0406 (1103257-12 ) mg/Kg dry** | | | | Lab File ID: 0325712.D | | Analyzed: 04/12/11 13:52 | | |
| 2-Fluorobiphenyl | 3.517 | 76.2 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.517 | 72.9 | 14 - 129 | 13.99 | 13.981 | 0.0090 | +/-0.500 | |
| **05-SS-085-0406 (1103257-14 ) mg/Kg dry** | | | | Lab File ID: 0325714.D | | Analyzed: 04/12/11 14:20 | | |
| 2-Fluorobiphenyl | 3.947 | 82.4 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.947 | 78.4 | 14 - 129 | 13.99 | 13.981 | 0.0090 | +/-0.500 | |
| **05-SS-086-0406 (1103257-15 ) mg/Kg dry** | | | | Lab File ID: 0325715.D | | Analyzed: 04/12/11 14:49 | | |
| 2-Fluorobiphenyl | 3.730 | 81.0 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.730 | 76.8 | 14 - 129 | 13.99 | 13.981 | 0.0090 | +/-0.500 | |
| **05-SS-086-0406-D (1103257-16 ) mg/Kg dry** | | | | Lab File ID: 0325716.D | | Analyzed: 04/12/11 15:17 | | |
| 2-Fluorobiphenyl | 3.594 | 80.2 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.594 | 83.2 | 14 - 129 | 13.999 | 13.981 | 0.0180 | +/-0.500 | |
| **05-SS-087-0406 (1103257-17 ) mg/Kg dry** | | | | Lab File ID: 0325717.D | | Analyzed: 04/12/11 15:45 | | |
| 2-Fluorobiphenyl | 3.561 | 80.6 | 14 - 129 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.561 | 82.4 | 14 - 129 | 13.99 | 13.981 | 0.0090 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10409 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-078-0406 (1103257-06 ) mg/Kg dry** | | | | Lab File ID: 0325706.D | | Analyzed: 04/12/11 22:16 | | |
| 2-Fluorobiphenyl | 3.484 | 85.6 | 14 - 129 | 8.319 | 8.31 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3.484 | 91.3 | 14 - 129 | 14.009 | 13.981 | 0.0280 | +/-0.500 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09509 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09509-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/04/11 14:11 | | | |
| Phenanthrene-d10 | 120288 | 11.66 | 106904 | 11.432 | 113 | 50 - 200 | 0.2280 | +/-0.50 | |
| Perylene-d12 | 74767 | 17.712 | 80420 | 16.536 | 93 | 50 - 200 | 1.1760 | +/-0.50 | |
| **LCS (1C31016-BS1 )** | | | Lab File ID: C31016L1.D | | | Analyzed: 04/04/11 17:27 | | | |
| Phenanthrene-d10 | 117501 | 11.661 | 120288 | 11.66 | 98 | 50 - 200 | 0.0010 | +/-0.50 | |
| Perylene-d12 | 65697 | 17.722 | 74767 | 17.712 | 88 | 50 - 200 | 0.0100 | +/-0.50 | |
| **Blank (1C31016-BLK1 )** | | | Lab File ID: C31016B1.D | | | Analyzed: 04/04/11 18:23 | | | |
| Phenanthrene-d10 | 98610 | 11.67 | 120288 | 11.66 | 82 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 43626 | 17.731 | 74767 | 17.712 | 58 | 50 - 200 | 0.0190 | +/-0.50 | |
| **05-MW-084 (1103257-13 )** | | | Lab File ID: 0325713.D | | | Analyzed: 04/04/11 19:18 | | | |
| Phenanthrene-d10 | 112474 | 11.66 | 120288 | 11.66 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 56355 | 17.722 | 74767 | 17.712 | 75 | 50 - 200 | 0.0100 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09607 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09607-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/05/11 11:31 | | | |
| Phenanthrene-d10 | 121484 | 11.66 | 106904 | 11.432 | 114 | 50 - 200 | 0.2280 | +/-0.50 | |
| Perylene-d12 | 68092 | 17.712 | 80420 | 16.536 | 85 | 50 - 200 | 1.1760 | +/-0.50 | |
| **LCS Dup (1C31016-BSD1 )** | | | Lab File ID: C3116L2R.D | | | Analyzed: 04/05/11 12:55 | | | |
| Phenanthrene-d10 | 136897 | 11.66 | 121484 | 11.66 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 87466 | 17.712 | 68092 | 17.712 | 128 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10202 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10202-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/08/11 16:48 | | | |
| Phenanthrene-d10 | 167448 | 11.572 | 106904 | 11.432 | 157 | 50 - 200 | 0.1400 | +/-0.50 | |
| Perylene-d12 | 86697 | 17.605 | 80420 | 16.536 | 108 | 50 - 200 | 1.0690 | +/-0.50 | |
| **LCS (1D05024-BS1 )** | | | Lab File ID: D05024L1.D | | | Analyzed: 04/08/11 20:05 | | | |
| Phenanthrene-d10 | 148528 | 11.572 | 167448 | 11.572 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 81769 | 17.605 | 86697 | 17.605 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1D05024-BLK1 )** | | | Lab File ID: D05024B1.D | | | Analyzed: 04/08/11 20:32 | | | |
| Phenanthrene-d10 | 135319 | 11.572 | 167448 | 11.572 | 81 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 62524 | 17.605 | 86697 | 17.605 | 72 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-070-0406 (1103257-01 )** | | | Lab File ID: 0325701.D | | | Analyzed: 04/08/11 23:19 | | | |
| Phenanthrene-d10 | 142972 | 11.572 | 167448 | 11.572 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 79888 | 17.605 | 86697 | 17.605 | 92 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-073-0406-D (1103257-02 )** | | | Lab File ID: 0325702.D | | | Analyzed: 04/08/11 23:46 | | | |
| Phenanthrene-d10 | 137134 | 11.572 | 167448 | 11.572 | 82 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 76793 | 17.605 | 86697 | 17.605 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-073-0406 (1103257-03 )** | | | Lab File ID: 0325703.D | | | Analyzed: 04/09/11 00:14 | | | |
| Phenanthrene-d10 | 143136 | 11.572 | 167448 | 11.572 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 66276 | 17.605 | 86697 | 17.605 | 76 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-074-0406 (1103257-04 )** | | | Lab File ID: 0325704.D | | | Analyzed: 04/09/11 00:42 | | | |
| Phenanthrene-d10 | 146282 | 11.572 | 167448 | 11.572 | 87 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 77360 | 17.605 | 86697 | 17.605 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike (1D05024-MS1 )** | | | Lab File ID: 0325704M.D | | | Analyzed: 04/09/11 01:09 | | | |
| Phenanthrene-d10 | 137955 | 11.572 | 167448 | 11.572 | 82 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 85858 | 17.605 | 86697 | 17.605 | 99 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike Dup (1D05024-MSD1 )** | | | Lab File ID: 0325704S.D | | | Analyzed: 04/09/11 01:37 | | | |
| Phenanthrene-d10 | 140212 | 11.572 | 167448 | 11.572 | 84 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 75427 | 17.605 | 86697 | 17.605 | 87 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-079-0406 (1103257-07 )** | | | Lab File ID: 0325707.D | | | Analyzed: 04/09/11 02:05 | | | |
| Phenanthrene-d10 | 127625 | 11.572 | 167448 | 11.572 | 76 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 65014 | 17.605 | 86697 | 17.605 | 75 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-080-0406 (1103257-08 )** | | | Lab File ID: 0325708.D | | | Analyzed: 04/09/11 02:32 | | | |
| Phenanthrene-d10 | 131193 | 11.572 | 167448 | 11.572 | 78 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 59048 | 17.605 | 86697 | 17.605 | 68 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_004
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D10409
Instrument: MS-BNA4
Calibration: 1061004

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10409-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/12/11 11:02 | | | |
| Phenanthrene-d10 | 125430 | 11.517 | 106904 | 11.432 | 117 | 50 - 200 | 0.0850 | +/-0.50 | |
| Perylene-d12 | 75240 | 17.56 | 80420 | 16.536 | 94 | 50 - 200 | 1.0240 | +/-0.50 | |
| **LCS (1D07009-BS1 )** | | | Lab File ID: D07009L1.D | | | Analyzed: 04/12/11 11:30 | | | |
| Phenanthrene-d10 | 96013 | 11.527 | 125430 | 11.517 | 77 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 51311 | 17.56 | 75240 | 17.56 | 68 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1D07009-BLK1 )** | | | Lab File ID: D07009B1.D | | | Analyzed: 04/12/11 11:59 | | | |
| Phenanthrene-d10 | 125393 | 11.527 | 125430 | 11.517 | 100 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 64563 | 17.56 | 75240 | 17.56 | 86 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-081-0406 (1103257-09 )** | | | Lab File ID: 0325709.D | | | Analyzed: 04/12/11 12:27 | | | |
| Phenanthrene-d10 | 77657 | 11.527 | 125430 | 11.517 | 62 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 37767 | 17.56 | 75240 | 17.56 | 50 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-082-0406 (1103257-10 )** | | | Lab File ID: 0325710.D | | | Analyzed: 04/12/11 12:56 | | | |
| Phenanthrene-d10 | 103246 | 11.527 | 125430 | 11.517 | 82 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 49615 | 17.56 | 75240 | 17.56 | 66 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-083-0406 (1103257-11 )** | | | Lab File ID: 0325711.D | | | Analyzed: 04/12/11 13:24 | | | |
| Phenanthrene-d10 | 89048 | 11.527 | 125430 | 11.517 | 71 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 42649 | 17.56 | 75240 | 17.56 | 57 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-084-0406 (1103257-12 )** | | | Lab File ID: 0325712.D | | | Analyzed: 04/12/11 13:52 | | | |
| Phenanthrene-d10 | 89512 | 11.527 | 125430 | 11.517 | 71 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 45072 | 17.56 | 75240 | 17.56 | 60 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-085-0406 (1103257-14 )** | | | Lab File ID: 0325714.D | | | Analyzed: 04/12/11 14:20 | | | |
| Phenanthrene-d10 | 95045 | 11.527 | 125430 | 11.517 | 76 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 43800 | 17.56 | 75240 | 17.56 | 58 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-086-0406 (1103257-15 )** | | | Lab File ID: 0325715.D | | | Analyzed: 04/12/11 14:49 | | | |
| Phenanthrene-d10 | 99866 | 11.527 | 125430 | 11.517 | 80 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 49112 | 17.56 | 75240 | 17.56 | 65 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-086-0406-D (1103257-16 )** | | | Lab File ID: 0325716.D | | | Analyzed: 04/12/11 15:17 | | | |
| Phenanthrene-d10 | 109142 | 11.527 | 125430 | 11.517 | 87 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 56581 | 17.56 | 75240 | 17.56 | 75 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-087-0406 (1103257-17 )** | | | Lab File ID: 0325717.D | | | Analyzed: 04/12/11 15:45 | | | |
| Phenanthrene-d10 | 92010 | 11.527 | 125430 | 11.517 | 73 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 51027 | 17.56 | 75240 | 17.56 | 68 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-078-0406 (1103257-06 )** | | | Lab File ID: 0325706.D | | | Analyzed: 04/12/11 22:16 | | | |
| Phenanthrene-d10 | 115775 | 11.527 | 125430 | 11.517 | 92 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 59301 | 17.569 | 75240 | 17.56 | 79 | 50 - 200 | 0.0090 | +/-0.50 | |

# Data for SW8011 Forms

1,2-dibromoethane

# HOLDING TIME SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-MW-084 | 03/29/11 13:40 | 03/30/11 08:30 | 04/06/11 13:34 | N/A | 14.00 | 04/07/11 04:21 | 8.65 | 14.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |
| Cal Standard | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| Initial Cal Check | 0L34409-ICV1 | 010R0101.D | 12/09/10 17:04 |
| Initial Cal Check | 0L34409-ICV1 | 010F0101.D | 12/09/10 17:04 |

# INITIAL CALIBRATION STANDARDS

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | ~~GL-ECD2~~ |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 17489.79 | 18.96825 | 1.543 | 1.749237E-02 | | 0.9996372 | CCC () | * |
| 1,2-Dibromoethane [2C] | 37183.36 | 15.05167 | 0.583 | 2.248094E-02 | | 0.9995717 | CCC () | * |
| 1,2-Dibromo-3-chloropropane | 35650.07 | 32.01128 | 6.973 | 2.748517E-02 | | 0.9987968 | CCC () | * |
| 1,2-Dibromo-3-chloropropane [2C] | 100449.9 | 35.64558 | 4.139286 | 5.910871E-02 | | 0.9986728 | CCC () | * |

# INITIAL CALIBRATION DATA

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,2-Dibromoethane | 1 | 14540 | 0.5 | 15516 | 0.4 | 15402.5 | 0.2 | 16590 | 0.15 | 15980 | 0.1 | ~~17600~~ |
| 1,2-Dibromoethane [2C] | 1 | 29076 | 0.5 | 33560 | 0.4 | 33402.5 | 0.2 | 38785 | 0.15 | 37866.67 | 0.1 | ~~42050~~ |
| 1,2-Dibromo-3-chloropropane | 1 | 24442 | 0.5 | 28986 | 0.4 | 28852.5 | 0.2 | 31650 | 0.15 | 31693.33 | 0.1 | ~~45080~~ |
| 1,2-Dibromo-3-chloropropane [2C] | 1 | 69695 | 0.5 | 78930 | 0.4 | 76647.5 | 0.2 | 85730 | 0.15 | 88033.34 | 0.1 | ~~105450~~ |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 0344003 | Instrument: | GL-ECD2 | |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 | 12/9/10 16:42 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,2-Dibromoethane | 0.05 | 23100 | 0.03 | 21300 | | | | | | | | |
| 1,2-Dibromoethane [2C] | 0.05 | 45260 | 0.03 | 42333.33 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 0.05 | 52760 | 0.03 | 51166.67 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane [2C] | 0.05 | 155180 | 0.03 | 148933.3 | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 010F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 0L34409 | Injection Date: | 12/09/10 |
| Lab Sample ID: | 0L34409-ICV1 | Injection Time: | 17:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4746 | 17489.79 | 14620 | | -5.1 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4584 | 37183.36 | 30824 | | -8.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09807 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D09807-CCV1 | 001R0201.D | 04/06/11 20:15 |
| Calibration Check | 1D09807-CCV1 | 001F0201.D | 04/06/11 20:15 |
| LCS | 1D06013-BS1 | 003R0201.D | 04/06/11 20:53 |
| LCS | 1D06013-BS1 | 003F0201.D | 04/06/11 20:53 |
| Blank | 1D06013-BLK1 | 004R0201.D | 04/06/11 21:14 |
| Calibration Check | 1D09807-CCV2 | 016R0201.D | 04/07/11 01:30 |
| Calibration Check | 1D09807-CCV2 | 016F0201.D | 04/07/11 01:30 |
| 05-MW-084 | 1103257-13 | 024R0201.D | 04/07/11 04:21 |
| Calibration Check | 1D09807-CCV3 | 027R0201.D | 04/07/11 05:26 |
| Calibration Check | 1D09807-CCV3 | 027F0201.D | 04/07/11 05:26 |

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 001F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/06/11 |
| Lab Sample ID: | 1D09807-CCV1 | Injection Time: | 20:15 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5866 | 17489.79 | 17802 | | 17.3 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5525 | 37183.36 | 36050 | | 10.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 016F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09807-CCV2 | Injection Time: | 01:30 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5615 | 17489.79 | 17096 | | 12.3 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5900 | 37183.36 | 38070 | | 18.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 027F0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D09807 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09807-CCV3 | Injection Time: | 05:26 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4228 | 17489.79 | 13128 | | -15.4 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5251 | 37183.36 | 34552 | | 5.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06013

Batch Matrix: Water

Preparation: EDB

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-084 | 1103257-13 | 04/06/11 13:34 | 43.80 | 35.00 |
| Blank | 1D06013-BLK1 | 04/06/11 13:34 | 35.00 | 35.00 |
| LCS | 1D06013-BS1 | 04/06/11 13:34 | 35.00 | 35.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D06013-BLK1 | File ID: | 004R0201.D |
| Sampled: | | Prepared: | 04/06/11 13:34 | Analyzed: | 04/06/11 21:14 |
| Solids: | | Preparation: | EDB | Dilution: | |

Batch: 1D06013 Sequence: 1D09807 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# LCS / LCS DUPLICATE RECOVERY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D06013 | Laboratory ID: | 1D06013-BS1 |
| Preparation: | EDB | Initial/Final: | 35 mL / 35 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.5000 | 0.4852 | 97.0 | 70 - 130 |
| 1,2-Dibromoethane [2C] | 0.5000 | 0.5215 | 104 | 70 - 130 |

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1D06013-BS1

Date(s) Analyzed: 04/06/2011 04/06/2011

Instrument ID (1): GL-ECD2

Instrument ID (2): GL-ECD2

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %D |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 1,2-Dibromoethane | 1 | 1.54 | 1.51 | 1.57 | 0.4852 | |
| | 2 | 0.58 | 0.55 | 0.61 | 0.5215 | 7 |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_004

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** GL-ECD2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0100 | 0.0300 | ug/L | SW8011 |

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-070-0406 | 03/29/11 07:30 | 03/30/11 08:30 | 04/08/11 20:01 | 10.56 | 14.00 | 04/10/11 15:22 | 1.81 | 40.00 | |
| 05-SS-073-0406-D | 03/29/11 07:45 | 03/30/11 08:30 | 04/08/11 20:01 | 10.55 | 14.00 | 04/10/11 16:04 | 1.84 | 40.00 | |
| 05-SS-073-0406 | 03/29/11 07:45 | 03/30/11 08:30 | 04/08/11 20:01 | 10.55 | 14.00 | 04/10/11 16:47 | 1.87 | 40.00 | |
| 05-SS-074-0406 | 03/29/11 08:25 | 03/30/11 08:30 | 04/08/11 20:01 | 10.53 | 14.00 | 04/10/11 17:29 | 1.89 | 40.00 | |
| 05-SS-078-0406 | 03/29/11 09:05 | 03/30/11 08:30 | 04/08/11 20:01 | 10.50 | 14.00 | 04/10/11 19:37 | 1.98 | 40.00 | |
| 05-SS-079-0406 | 03/29/11 09:25 | 03/30/11 08:30 | 04/08/11 20:01 | 10.48 | 14.00 | 04/10/11 20:19 | 2.01 | 40.00 | |
| 05-SS-080-0406 | 03/29/11 09:50 | 03/30/11 08:30 | 04/08/11 20:01 | 10.47 | 14.00 | 04/10/11 21:01 | 2.04 | 40.00 | |
| 05-SS-081-0406 | 03/29/11 10:35 | 03/30/11 08:30 | 04/08/11 20:01 | 10.43 | 14.00 | 04/10/11 21:44 | 2.07 | 40.00 | |
| 05-SS-082-0406 | 03/29/11 11:50 | 03/30/11 08:30 | 04/08/11 20:01 | 10.38 | 14.00 | 04/10/11 22:26 | 2.10 | 40.00 | |
| 05-SS-083-0406 | 03/29/11 12:25 | 03/30/11 08:30 | 04/08/11 20:01 | 10.36 | 14.00 | 04/10/11 23:51 | 2.16 | 40.00 | |
| 05-SS-084-0406 | 03/29/11 13:00 | 03/30/11 08:30 | 04/08/11 20:01 | 10.33 | 14.00 | 04/11/11 00:34 | 2.19 | 40.00 | |
| 05-MW-084 | 03/29/11 13:40 | 03/30/11 08:30 | 04/01/11 11:40 | 2.96 | 7.00 | 04/05/11 05:45 | 3.75 | 40.00 | |
| 05-SS-085-0406 | 03/29/11 14:25 | 03/30/11 08:30 | 04/08/11 20:01 | 10.28 | 14.00 | 04/11/11 01:16 | 2.22 | 40.00 | |
| 05-SS-086-0406 | 03/29/11 14:45 | 03/30/11 08:30 | 04/08/11 20:01 | 10.26 | 14.00 | 04/11/11 01:59 | 2.25 | 40.00 | |
| 05-SS-086-0406-D | 03/29/11 14:45 | 03/30/11 08:30 | 04/08/11 20:01 | 10.26 | 14.00 | 04/11/11 02:41 | 2.28 | 40.00 | |
| 05-SS-087-0406 | 03/29/11 15:15 | 03/30/11 08:30 | 04/13/11 13:18 | 14.96 | 14.00 | 04/15/11 06:56 | 1.73 | 40.00 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| Cal Standard | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| Cal Standard | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| Cal Standard | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| Cal Standard | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| Cal Standard | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |
| Initial Cal Check | 1B05902-ICV1 | 002F0201.D | 02/27/11 14:40 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| 11B0727 | FLPRO CAL5 850ppm | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| 11B0726 | FLPRO CAL4 2550ppm | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| 11B0725 | FLPRO CAL3 4250ppm | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| 11B0724 | FLPRO CAL2 5950ppm | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| 11B0723 | FLPRO CAL1 8500ppm | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1059001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 2/25/11 12:08 2/25/11 15:39 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | ~~Quad COD~~ | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |

# INITIAL CALIBRATION DATA

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1059001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 2/25/11 12:08 2/25/11 15:39 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF |
| Petroleum Range Organics | 85 | 1001.176 | 850 | 1377.509 | 2550 | 1446.599 | 4250 | 1488.03 | 5950 | 1412.965 | 8500 | 1418.286 |
| 2-Fluorobiphenyl | 5 | 1558.6 | 10 | 1409.6 | 15 | 1829.333 | 25 | 2032.88 | 35 | 2127.686 | 50 | 2181.72 |
| o-Terphenyl | 5 | 2387.8 | 10 | 2409.2 | 15 | 2548.533 | 25 | 2526 | 35 | 2565.572 | 50 | 2515.5 |
| Petroleum Range Organics | 85 | 1001.176 | 850 | 1377.509 | 2550 | 1446.599 | 4250 | 1488.03 | 5950 | 1412.965 | 8500 | 1418.286 |
| 2-Fluorobiphenyl | 5 | 1558.6 | 10 | 1409.6 | 15 | 1829.333 | 25 | 2032.88 | 35 | 2127.686 | 50 | 2181.72 |
| o-Terphenyl | 5 | 2387.8 | 10 | 2409.2 | 15 | 2548.533 | 25 | 2526 | 35 | 2565.572 | 50 | 2515.5 |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1B05902 | Injection Date: | 02/27/11 |
| Lab Sample ID: | 1B05902-ICV1 | Injection Time: | 14:40 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4130 | 1357.428 | 1401.388 | | 3.2 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09506 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D09506-CCV1 | 029F2901.D | 04/05/11 02:13 |
| Blank | 1C31015-BLK1 | 030F3001.D | 04/05/11 02:56 |
| LCS | 1C31015-BS1 | 031F3101.D | 04/05/11 03:38 |
| LCS Dup | 1C31015-BSD1 | 032F3201.D | 04/05/11 04:20 |
| 05-MW-084 | 1103257-13 | 034F3401.D | 04/05/11 05:45 |
| Calibration Check | 1D09506-CCV2 | 035F3501.D | 04/05/11 06:27 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 029F2901.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09506 | Injection Date: | 04/05/11 |
| Lab Sample ID: | 1D09506-CCV1 | Injection Time: | 02:13 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3885 | 1357.428 | 1240.873 | | -8.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 27.69 | 1856.637 | 2056.28 | | 10.8 | 25 |
| o-Terphenyl | A | 25.00 | 22.33 | 2492.101 | 2225.68 | | -10.7 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 035F3501.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D09506 | Injection Date: | 04/05/11 |
| Lab Sample ID: | 1D09506-CCV2 | Injection Time: | 06:27 |

| COMPOUND | TYPE | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3815 | 1357.428 | 1218.492 | | -10.2 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.86 | 1856.637 | 1994.6 | | 7.4 | 25 |
| o-Terphenyl | A | 25.00 | 21.93 | 2492.101 | 2186.12 | | -12.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10110 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10110-CCV1 | 002F0201.D | 04/10/11 12:31 |
| Blank | 1D05022-BLK1 | 003F0301.D | 04/10/11 13:14 |
| LCS | 1D05022-BS1 | 004F0401.D | 04/10/11 13:56 |
| 05-SS-070-0406 | 1103257-01 | 006F0601.D | 04/10/11 15:22 |
| 05-SS-073-0406-D | 1103257-02 | 007F0701.D | 04/10/11 16:04 |
| 05-SS-073-0406 | 1103257-03 | 008F0801.D | 04/10/11 16:47 |
| 05-SS-074-0406 | 1103257-04 | 009F0901.D | 04/10/11 17:29 |
| 05-SS-074-0406 | 1D05022-MS1 | 010F1001.D | 04/10/11 18:12 |
| 05-SS-074-0406 | 1D05022-MSD1 | 011F1101.D | 04/10/11 18:54 |
| 05-SS-078-0406 | 1103257-06 | 012F1201.D | 04/10/11 19:37 |
| 05-SS-079-0406 | 1103257-07 | 013F1301.D | 04/10/11 20:19 |
| 05-SS-080-0406 | 1103257-08 | 014F1401.D | 04/10/11 21:01 |
| 05-SS-081-0406 | 1103257-09 | 015F1501.D | 04/10/11 21:44 |
| 05-SS-082-0406 | 1103257-10 | 016F1601.D | 04/10/11 22:26 |
| Calibration Check | 1D10110-CCV2 | 017F1701.D | 04/10/11 23:09 |
| 05-SS-083-0406 | 1103257-11 | 018F1801.D | 04/10/11 23:51 |
| 05-SS-084-0406 | 1103257-12 | 019F1901.D | 04/11/11 00:34 |
| 05-SS-085-0406 | 1103257-14 | 020F2001.D | 04/11/11 01:16 |
| 05-SS-086-0406 | 1103257-15 | 021F2101.D | 04/11/11 01:59 |
| 05-SS-086-0406-D | 1103257-16 | 022F2201.D | 04/11/11 02:41 |
| Calibration Check | 1D10110-CCV3 | 026F2601.D | 04/11/11 05:31 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D10110 | Injection Date: | 04/10/11 |
| Lab Sample ID: | 1D10110-CCV1 | Injection Time: | 12:31 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3884 | 1357.428 | 1240.676 | | -8.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.32 | 1856.637 | 1955.08 | | 5.3 | 25 |
| o-Terphenyl | A | 25.00 | 20.55 | 2492.101 | 2048.4 | | -17.8 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 017F1701.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D10110 | Injection Date: | 04/10/11 |
| Lab Sample ID: | 1D10110-CCV2 | Injection Time: | 23:09 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4041 | 1357.428 | 1290.63 | | -4.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 25.19 | 1856.637 | 1870.76 | | 0.8 | 25 |
| o-Terphenyl | A | 25.00 | 20.94 | 2492.101 | 2087.12 | | -16.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 026F2601.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D10110 | Injection Date: | 04/11/11 |
| Lab Sample ID: | 1D10110-CCV3 | Injection Time: | 05:31 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4110 | 1357.428 | 1312.622 | | -3.3 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 25.59 | 1856.637 | 1900.28 | | 2.4 | 25 |
| o-Terphenyl | A | 25.00 | 23.84 | 2492.101 | 2376 | | -4.7 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| Cal Standard | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| Cal Standard | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| Cal Standard | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| Cal Standard | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| Cal Standard | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |
| Initial Cal Check | 1D10403-ICV1 | 009F0701.D | 04/13/11 19:46 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| 11B0727 | FLPRO CAL5 850ppm | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| 11B0726 | FLPRO CAL4 2550ppm | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| 11B0725 | FLPRO CAL3 4250ppm | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| 11B0724 | FLPRO CAL2 5950ppm | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| 11B0723 | FLPRO CAL1 8500ppm | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | I104001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 4/13/11 15:31 4/13/11 19:04 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1688.919 | 5.182621 | 2.923 | 2.565533E-02 | | | 20 | |
| 2-Fluorobiphenyl | 2920.489 | 12.42221 | 10.68433 | 0.709301 | | | 20 | |
| o-Terphenyl | 3802.792 | 5.518154 | 16.28583 | 7.880568E-02 | | | 20 | |

# INITIAL CALIBRATION DATA

## FLPRO

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: ~~NAS Pensacola CTO~~ JM26 Saufley

Calibration: 1104001

Instrument: GL-GCFID2

Matrix: Water

Calibration Dates: 4/13/11 15:31 4/13/11 19:04

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF |
| Petroleum Range Organics | 85 | 1579.718 | 850 | 1838.869 | 2550 | 1705.804 | 4250 | 1710.376 | 5950 | 1645.856 | 8500 | 1652.894 |
| 2-Fluorobiphenyl | 5 | 2272.8 | 10 | 3009.6 | 15 | 3284.4 | 25 | 3118.36 | 35 | 3090.714 | 50 | 2747.06 |
| o-Terphenyl | 5 | 3426.8 | 10 | 3721.9 | 15 | 3804.2 | 25 | 3999.32 | 35 | 3939.572 | 50 | 3924.96 |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 009F0701.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10403 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10403-ICV1 | Injection Time: | 19:46 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4522 | 1688.919 | 1909.501 | | 13.1 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10517 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10517-CCV1 | 028F2801.D | 04/15/11 04:50 |
| Blank | 1D13012-BLK1 | 029F2901.D | 04/15/11 05:32 |
| LCS | 1D13012-BS1 | 030F3001.D | 04/15/11 06:14 |
| 05-SS-087-0406 | 1103257-17 | 031F3101.D | 04/15/11 06:56 |
| Calibration Check | 1D10517-CCV2 | 041F4101.D | 04/15/11 13:59 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 028F2801.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10517 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10517-CCV1 | Injection Time: | 04:50 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4048 | 1688.919 | 1608.683 | | -4.8 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.43 | 2920.489 | 2737.08 | | -6.3 | 25 |
| o-Terphenyl | A | 25.00 | 23.74 | 3802.792 | 3611.04 | | -5.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 041F4101.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10517 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10517-CCV2 | Injection Time: | 13:59 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4070 | 1688.919 | 1617.418 | | -4.2 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 22.57 | 2920.489 | 2636.72 | | -9.7 | 25 |
| o-Terphenyl | A | 25.00 | 23.90 | 3802.792 | 3636.08 | | -4.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1C31015 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-084 | 1103257-13 | 04/01/11 11:40 | 850.00 | 2.00 |
| Blank | 1C31015-BLK1 | 04/01/11 11:40 | 1,000.00 | 2.00 |
| LCS | 1C31015-BS1 | 04/01/11 11:40 | 1,000.00 | 2.00 |
| LCS Dup | 1C31015-BSD1 | 04/01/11 11:40 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1C31015-BLK1 | File ID: | 030F3001.D |
| Sampled: | | Prepared: | | Analyzed: | 04/05/11 02:56 |
| ~~Solids:~~ | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1C31015 Sequence: 1D09506 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.04028 | 80.6 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.03380 | 67.6 | 82 - 142 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1C31015 | Laboratory ID: | 1C31015-BS1 |
| Preparation: | ~~EXT~~ 3510 | Initial/Final: | 1000 mL / 2 mL |

| ANALYTE | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 3.324 | 104 | 55 - 118 |

| ANALYTE | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 3.038 | 94.9 | 8.98 | 30 | 55 - 118 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D05022 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-070-0406 | 1103257-01 | 04/08/11 20:01 | 15.70 | 2.00 |
| 05-SS-073-0406-D | 1103257-02 | 04/08/11 20:01 | 15.00 | 2.00 |
| 05-SS-073-0406 | 1103257-03 | 04/08/11 20:01 | 15.90 | 2.00 |
| 05-SS-074-0406 | 1103257-04 | 04/08/11 20:01 | 15.10 | 2.00 |
| 05-SS-078-0406 | 1103257-06 | 04/08/11 20:01 | 15.30 | 2.00 |
| 05-SS-079-0406 | 1103257-07 | 04/08/11 20:01 | 15.40 | 2.00 |
| 05-SS-080-0406 | 1103257-08 | 04/08/11 20:01 | 15.90 | 2.00 |
| 05-SS-081-0406 | 1103257-09 | 04/08/11 20:01 | 15.20 | 2.00 |
| 05-SS-082-0406 | 1103257-10 | 04/08/11 20:01 | 15.60 | 2.00 |
| 05-SS-083-0406 | 1103257-11 | 04/08/11 20:01 | 15.00 | 2.00 |
| 05-SS-084-0406 | 1103257-12 | 04/08/11 20:01 | 15.20 | 2.00 |
| 05-SS-085-0406 | 1103257-14 | 04/08/11 20:01 | 15.90 | 2.00 |
| 05-SS-086-0406 | 1103257-15 | 04/08/11 20:01 | 15.30 | 2.00 |
| 05-SS-086-0406-D | 1103257-16 | 04/08/11 20:01 | 15.30 | 2.00 |
| Blank | 1D05022-BLK1 | 04/08/11 20:01 | 15.00 | 2.00 |
| LCS | 1D05022-BS1 | 04/08/11 20:01 | 15.00 | 2.00 |
| 05-SS-074-0406 | 1D05022-MS1 | 04/08/11 20:01 | 15.80 | 2.00 |
| 05-SS-074-0406 | 1D05022-MSD1 | 04/08/11 20:01 | 15.20 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D05022-BLK1 | File ID: | 003F0301.D |
| Sampled: | | Prepared: | | Analyzed: | 04/10/11 13:14 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.177 | 95.3 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.205 | 66.1 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D05022 | Laboratory ID: | 1D05022-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 172.3 | 80.8 | 50 - 140 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D13012 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-087-0406 | 1103257-17 | 04/13/11 13:18 | 15.50 | 2.00 |
| Blank | 1D13012-BLK1 | 04/13/11 13:18 | 15.00 | 2.00 |
| LCS | 1D13012-BS1 | 04/13/11 13:18 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_004 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D13012-BLK1 | File ID: | 029F2901.D |
| Sampled: | | Prepared: | | Analyzed: | 04/15/11 05:32 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D13012 Sequence: 1D10517 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.648 | 79.5 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.441 | 73.2 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D13012 | Laboratory ID: | 1D13012-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 202.5 | 94.9 | 50 - 140 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

**FLPRO**

**05-SS-074-0406**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D05022

% Solids: 88.39

Source Sample Name: **1103257-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 229.1 | ND | 191.6 | 83.6 | | 50 - 140 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 238.2 | 183.6 | 77.1 | 4.27 | | 40 | 50 - 140 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09506 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D09506-CCV1 ) mg/L** | | | | Lab File ID: 029F2901.D | | Analyzed: 04/05/11 02:13 | | |
| 2-Fluorobiphenyl | 25.00 | 111 | 75 - 125 | 10.873 | 10.873 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 89.3 | 75 - 125 | 16.433 | 16.433 | 0.0000 | +/-0.050 | |
| **Blank (1C31015-BLK1 ) mg/L** | | | | Lab File ID: 030F3001.D | | Analyzed: 04/05/11 02:56 | | |
| 2-Fluorobiphenyl | 0.05000 | 80.6 | 50 - 150 | 10.886 | 10.873 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 67.6 | 82 - 142 | 16.45 | 16.433 | 0.0170 | +/-0.050 | * |
| **LCS (1C31015-BS1 ) mg/L** | | | | Lab File ID: 031F3101.D | | Analyzed: 04/05/11 03:38 | | |
| 2-Fluorobiphenyl | 0.05000 | 90.7 | 50 - 150 | 10.85 | 10.873 | -0.0230 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 97.8 | 82 - 142 | 16.43 | 16.433 | -0.0030 | +/-0.050 | |
| **LCS Dup (1C31015-BSD1 ) mg/L** | | | | Lab File ID: 032F3201.D | | Analyzed: 04/05/11 04:20 | | |
| 2-Fluorobiphenyl | 0.05000 | 82.8 | 50 - 150 | 10.86 | 10.873 | -0.0130 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 90.2 | 82 - 142 | 16.43 | 16.433 | -0.0030 | +/-0.050 | |
| **05-MW-084 (1103257-13 ) mg/L** | | | | Lab File ID: 034F3401.D | | Analyzed: 04/05/11 05:45 | | |
| 2-Fluorobiphenyl | 0.05882 | 95.0 | 50 - 150 | 10.87 | 10.873 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 0.05882 | 69.8 | 82 - 142 | 16.443 | 16.433 | 0.0100 | +/-0.050 | * |
| **Calibration Check (1D09506-CCV2 ) mg/L** | | | | Lab File ID: 035F3501.D | | Analyzed: 04/05/11 06:27 | | |
| 2-Fluorobiphenyl | 25.00 | 107 | 75 - 125 | 10.873 | 10.873 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 87.7 | 75 - 125 | 16.43 | 16.433 | -0.0030 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10110 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1059001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10110-CCV1 ) mg/L** | | | | Lab File ID: 002F0201.D | | Analyzed: 04/10/11 12:31 | | |
| 2-Fluorobiphenyl | 25.00 | 105 | 75 - 125 | 10.853 | 10.853 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 82.2 | 75 - 125 | 16.423 | 16.423 | 0.0000 | +/-0.050 | |
| **Blank (1D05022-BLK1 ) mg/Kg wet** | | | | Lab File ID: 003F0301.D | | Analyzed: 04/10/11 13:14 | | |
| 2-Fluorobiphenyl | 3.333 | 95.3 | 50 - 150 | 11.063 | 10.853 | 0.2100 | +/-0.050 | * |
| o-Terphenyl | 3.333 | 66.1 | 35 - 140 | 16.523 | 16.423 | 0.1000 | +/-0.050 | * |
| **LCS (1D05022-BS1 ) mg/Kg wet** | | | | Lab File ID: 004F0401.D | | Analyzed: 04/10/11 13:56 | | |
| 2-Fluorobiphenyl | 3.333 | 89.0 | 50 - 150 | 10.863 | 10.853 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.333 | 69.1 | 35 - 140 | 16.423 | 16.423 | 0.0000 | +/-0.050 | |
| **05-SS-070-0406 (1103257-01 ) mg/Kg dry** | | | | Lab File ID: 006F0601.D | | Analyzed: 04/10/11 15:22 | | |
| 2-Fluorobiphenyl | 3.390 | 83.5 | 50 - 150 | 11.093 | 10.853 | 0.2400 | +/-0.050 | * |
| o-Terphenyl | 3.390 | 62.3 | 35 - 140 | 16.516 | 16.423 | 0.0930 | +/-0.050 | * |
| **05-SS-073-0406-D (1103257-02 ) mg/Kg dry** | | | | Lab File ID: 007F0701.D | | Analyzed: 04/10/11 16:04 | | |
| 2-Fluorobiphenyl | 3.575 | 83.8 | 50 - 150 | 11.08 | 10.853 | 0.2270 | +/-0.050 | * |
| o-Terphenyl | 3.575 | 66.2 | 35 - 140 | 16.51 | 16.423 | 0.0870 | +/-0.050 | * |
| **05-SS-073-0406 (1103257-03 ) mg/Kg dry** | | | | Lab File ID: 008F0801.D | | Analyzed: 04/10/11 16:47 | | |
| 2-Fluorobiphenyl | 3.355 | 91.8 | 50 - 150 | 11.106 | 10.853 | 0.2530 | +/-0.050 | * |
| o-Terphenyl | 3.355 | 64.0 | 35 - 140 | 16.53 | 16.423 | 0.1070 | +/-0.050 | * |
| **05-SS-074-0406 (1103257-04 ) mg/Kg dry** | | | | Lab File ID: 009F0901.D | | Analyzed: 04/10/11 17:29 | | |
| 2-Fluorobiphenyl | 3.746 | 84.7 | 50 - 150 | 11.113 | 10.853 | 0.2600 | +/-0.050 | * |
| o-Terphenyl | 3.746 | 63.7 | 35 - 140 | 16.526 | 16.423 | 0.1030 | +/-0.050 | * |
| **Matrix Spike (1D05022-MS1 ) mg/Kg dry** | | | | Lab File ID: 010F1001.D | | Analyzed: 04/10/11 18:12 | | |
| 2-Fluorobiphenyl | 3.580 | 90.9 | 50 - 150 | 10.863 | 10.853 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.580 | 78.7 | 35 - 140 | 16.423 | 16.423 | 0.0000 | +/-0.050 | |
| **Matrix Spike Dup (1D05022-MSD1 ) mg/Kg dry** | | | | Lab File ID: 011F1101.D | | Analyzed: 04/10/11 18:54 | | |
| 2-Fluorobiphenyl | 3.722 | 86.0 | 50 - 150 | 10.87 | 10.853 | 0.0170 | +/-0.050 | |
| o-Terphenyl | 3.722 | 73.4 | 35 - 140 | 16.43 | 16.423 | 0.0070 | +/-0.050 | |
| **05-SS-078-0406 (1103257-06 ) mg/Kg dry** | | | | Lab File ID: 012F1201.D | | Analyzed: 04/10/11 19:37 | | |
| 2-Fluorobiphenyl | 3.484 | 86.6 | 50 - 150 | 11.083 | 10.853 | 0.2300 | +/-0.050 | * |
| o-Terphenyl | 3.484 | 66.3 | 35 - 140 | 16.533 | 16.423 | 0.1100 | +/-0.050 | * |
| **05-SS-079-0406 (1103257-07 ) mg/Kg dry** | | | | Lab File ID: 013F1301.D | | Analyzed: 04/10/11 20:19 | | |
| 2-Fluorobiphenyl | 3.706 | 73.5 | 50 - 150 | 11.16 | 10.853 | 0.3070 | +/-0.050 | * |
| o-Terphenyl | 3.706 | 61.5 | 35 - 140 | 16.55 | 16.423 | 0.1270 | +/-0.050 | * |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_004
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D10110
Instrument: GL-GCFID2
Calibration: 1059001

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-080-0406 (1103257-08 ) mg/Kg dry** | | | | Lab File ID: 014F1401.D | | Analyzed: 04/10/11 21:01 | | |
| 2-Fluorobiphenyl | 3.360 | 81.0 | 50 - 150 | 11.183 | 10.853 | 0.3300 | +/-0.050 | * |
| o-Terphenyl | 3.360 | 63.3 | 35 - 140 | 16.55 | 16.423 | 0.1270 | +/-0.050 | * |
| **05-SS-081-0406 (1103257-09 ) mg/Kg dry** | | | | Lab File ID: 015F1501.D | | Analyzed: 04/10/11 21:44 | | |
| 2-Fluorobiphenyl | 3.541 | 85.2 | 50 - 150 | 11.153 | 10.853 | 0.3000 | +/-0.050 | * |
| o-Terphenyl | 3.541 | 63.5 | 35 - 140 | 16.543 | 16.423 | 0.1200 | +/-0.050 | * |
| **05-SS-082-0406 (1103257-10 ) mg/Kg dry** | | | | Lab File ID: 016F1601.D | | Analyzed: 04/10/11 22:26 | | |
| 2-Fluorobiphenyl | 3.522 | 84.3 | 50 - 150 | 11.21 | 10.853 | 0.3570 | +/-0.050 | * |
| o-Terphenyl | 3.522 | 62.6 | 35 - 140 | 16.573 | 16.423 | 0.1500 | +/-0.050 | * |
| **Calibration Check (1D10110-CCV2 ) mg/L** | | | | Lab File ID: 017F1701.D | | Analyzed: 04/10/11 23:09 | | |
| 2-Fluorobiphenyl | 25.00 | 101 | 75 - 125 | 10.843 | 10.853 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 25.00 | 83.8 | 75 - 125 | 16.416 | 16.423 | -0.0070 | +/-0.050 | |
| **05-SS-083-0406 (1103257-11 ) mg/Kg dry** | | | | Lab File ID: 018F1801.D | | Analyzed: 04/10/11 23:51 | | |
| 2-Fluorobiphenyl | 3.624 | 78.0 | 50 - 150 | 11.256 | 10.853 | 0.4030 | +/-0.050 | * |
| o-Terphenyl | 3.624 | 63.0 | 35 - 140 | 16.573 | 16.423 | 0.1500 | +/-0.050 | * |
| **05-SS-084-0406 (1103257-12 ) mg/Kg dry** | | | | Lab File ID: 019F1901.D | | Analyzed: 04/11/11 00:34 | | |
| 2-Fluorobiphenyl | 3.609 | 85.9 | 50 - 150 | 11.216 | 10.853 | 0.3630 | +/-0.050 | * |
| o-Terphenyl | 3.609 | 63.3 | 35 - 140 | 16.546 | 16.423 | 0.1230 | +/-0.050 | * |
| **05-SS-085-0406 (1103257-14 ) mg/Kg dry** | | | | Lab File ID: 020F2001.D | | Analyzed: 04/11/11 01:16 | | |
| 2-Fluorobiphenyl | 3.773 | 72.1 | 50 - 150 | 11.23 | 10.853 | 0.3770 | +/-0.050 | * |
| o-Terphenyl | 3.773 | 58.0 | 35 - 140 | 16.576 | 16.423 | 0.1530 | +/-0.050 | * |
| **05-SS-086-0406 (1103257-15 ) mg/Kg dry** | | | | Lab File ID: 021F2101.D | | Analyzed: 04/11/11 01:59 | | |
| 2-Fluorobiphenyl | 3.681 | 66.6 | 50 - 150 | 11.303 | 10.853 | 0.4500 | +/-0.050 | * |
| o-Terphenyl | 3.681 | 50.5 | 35 - 140 | 16.613 | 16.423 | 0.1900 | +/-0.050 | * |
| **05-SS-086-0406-D (1103257-16 ) mg/Kg dry** | | | | Lab File ID: 022F2201.D | | Analyzed: 04/11/11 02:41 | | |
| 2-Fluorobiphenyl | 3.641 | 60.0 | 50 - 150 | 11.37 | 10.853 | 0.5170 | +/-0.050 | * |
| o-Terphenyl | 3.641 | 50.5 | 35 - 140 | 16.643 | 16.423 | 0.2200 | +/-0.050 | * |
| **Calibration Check (1D10110-CCV3 ) mg/L** | | | | Lab File ID: 026F2601.D | | Analyzed: 04/11/11 05:31 | | |
| 2-Fluorobiphenyl | 25.00 | 102 | 75 - 125 | 10.853 | 10.853 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 95.4 | 75 - 125 | 16.423 | 16.423 | 0.0000 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10517 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10517-CCV1 ) mg/L** | | | | Lab File ID: 028F2801.D | | Analyzed: 04/15/11 04:50 | | |
| 2-Fluorobiphenyl | 25.00 | 93.7 | 75 - 125 | 10.64 | 10.64 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 95.0 | 75 - 125 | 16.263 | 16.263 | 0.0000 | +/-0.050 | |
| **Blank (1D13012-BLK1 ) mg/Kg wet** | | | | Lab File ID: 029F2901.D | | Analyzed: 04/15/11 05:32 | | |
| 2-Fluorobiphenyl | 3.333 | 79.5 | 50 - 150 | 10.653 | 10.64 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 3.333 | 73.2 | 35 - 140 | 16.273 | 16.263 | 0.0100 | +/-0.050 | |
| **LCS (1D13012-BS1 ) mg/Kg wet** | | | | Lab File ID: 030F3001.D | | Analyzed: 04/15/11 06:14 | | |
| 2-Fluorobiphenyl | 3.333 | 84.2 | 50 - 150 | 10.65 | 10.64 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.333 | 72.6 | 35 - 140 | 16.263 | 16.263 | 0.0000 | +/-0.050 | |
| **05-SS-087-0406 (1103257-17 ) mg/Kg dry** | | | | Lab File ID: 031F3101.D | | Analyzed: 04/15/11 06:56 | | |
| 2-Fluorobiphenyl | 3.469 | 81.0 | 50 - 150 | 10.653 | 10.64 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 3.469 | 74.5 | 35 - 140 | 16.27 | 16.263 | 0.0070 | +/-0.050 | |
| **Calibration Check (1D10517-CCV2 ) mg/L** | | | | Lab File ID: 041F4101.D | | Analyzed: 04/15/11 13:59 | | |
| 2-Fluorobiphenyl | 25.00 | 90.3 | 75 - 125 | 10.65 | 10.64 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 25.00 | 95.6 | 75 - 125 | 16.266 | 16.263 | 0.0030 | +/-0.050 | |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_004

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid **Instrument:** GL-GCFID2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |
| | 0.170 | 0.680 | mg/L | FLPRO |
| | 0.170 | 0.510 | mg/Kg | FLPRO |

# Data for SW6010C Forms

Lead

# ANALYSIS SEQUENCE SUMMARY

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09708 | Instrument: | ME-ICP |
| Calibration: | 1097001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D09708-CAL1 | 040711A-002 | 04/07/11 08:37 |
| Cal Standard | 1D09708-CAL2 | 040711A-003 | 04/07/11 08:42 |
| Cal Standard | 1D09708-CAL3 | 040711A-004 | 04/07/11 08:46 |
| Cal Standard | 1D09708-CAL6 | 040711A-007 | 04/07/11 09:01 |
| Initial Cal Check | 1D09708-ICV1 | 040711B-001 | 04/07/11 09:46 |
| Initial Cal Blank | 1D09708-ICB1 | 040711B-002 | 04/07/11 09:53 |
| Instrument RL Check | 1D09708-CRL1 | 040711B-003 | 04/07/11 09:58 |
| Interference Check A | 1D09708-IFA1 | 040711C-001 | 04/07/11 10:21 |
| Interference Check B | 1D09708-IFB2 | 040711C-004 | 04/07/11 10:40 |
| Calibration Check | 1D09708-CCV1 | 040711C-006 | 04/07/11 10:52 |
| Calibration Blank | 1D09708-CCB1 | 040711C-007 | 04/07/11 10:59 |
| Blank | 1D06001-BLK1 | 040711C-008 | 04/07/11 11:04 |
| LCS | 1D06001-BS1 | 040711C-009 | 04/07/11 11:09 |
| Calibration Check | 1D09708-CCV2 | 040711C-024 | 04/07/11 12:22 |
| Calibration Blank | 1D09708-CCB2 | 040711C-025 | 04/07/11 12:29 |
| 05-MW-084 | 1103257-13 | 040711D-002 | 04/07/11 12:45 |
| Calibration Check | 1D09708-CCV3 | 040711D-010 | 04/07/11 13:23 |
| Calibration Blank | 1D09708-CCB3 | 040711D-011 | 04/07/11 13:30 |

# INITIAL CALIBRATION DATA (Continued)

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1097001 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:37 4/7/11 9:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 1.52105E-05 | 66.68896 | 6.107715 | 186.8521 | 0.9999999 | | 0.998 | |
| Antimony | 6.769875E-04 | 66.78774 | 9.752713 | 191.5629 | 0.9999959 | | 0.998 | |
| Arsenic | 2.143125E-04 | 67.14622 | 46.85966 | 195.074 | 0.9999991 | | 0.998 | |
| Barium | 9.99955E-03 | 66.72964 | 2.037512 | 162.6121 | 0.9999973 | | 0.998 | |
| Beryllium | 1.812575E-03 | 66.672 | 20.7378 | 197.2575 | 0.9999993 | | 0.998 | |
| Boron | 9.8285E-06 | 66.67163 | 2.79141 | 166.2509 | 0.9999983 | | 0.998 | |
| Cadmium | 0.0094685 | 66.72252 | 13.84847 | 197.6564 | 0.9999811 | | 0.998 | |
| Calcium | 2.620164E-05 | 66.6675 | 1.69869 | 155.5821 | 1 | | 0.998 | |
| Chromium | 2.266E-05 | 66.7029 | 25.2241 | 196.4349 | 0.9999849 | | 0.998 | |
| Cobalt | 0.0048103 | 66.68366 | 2.40712 | 178.0512 | 0.9999995 | | 0.998 | |
| Copper | 6.590425E-05 | 66.71455 | 0.8447175 | 130.3435 | 0.9999999 | | 0.998 | |
| Iron | 1.003085E-05 | 66.69526 | 21.66392 | 197.2161 | 0.9999999 | | 0.998 | |
| Lead | 1.048325E-03 | 66.66793 | 27.0236 | 196.1913 | 1 | | 0.998 | |
| Magnesium | 1.112205E-06 | 66.78651 | 684.2142 | 199.8776 | 0.9999166 | | 0.998 | |
| Manganese | 1.5141E-04 | 66.79584 | 9.704292 | 190.7178 | 0.9999822 | | 0.998 | |
| Molybdenum | 3.507925E-03 | 66.69801 | 11.6497 | 192.4787 | 0.9999888 | | 0.998 | |
| Nickel | 2.520525E-03 | 66.76569 | 3.007653 | 182.4882 | 0.9999981 | | 0.998 | |
| Potassium | 7.942E-06 | 67.18399 | 1.459885 | 74.30132 | 0.9999998 | | 0.998 | |
| Selenium | 3.61915E-04 | 66.69315 | 3.362628 | 178.1845 | 0.9999898 | | 0.998 | |
| Silver | 3.84325E-05 | 66.74159 | 6.903345 | 185.9063 | 0.9998884 | | 0.998 | |
| Sodium | 3.6085E-05 | 66.66934 | 2.41139 | 118.5887 | 0.999999 | | 0.998 | |
| Strontium | 1.26875E-03 | 66.67978 | 11.9523 | 191.121 | 0.9999953 | | 0.998 | |
| Thallium | 6.78175E-04 | 66.66975 | 13.48664 | 189.1548 | 0.9999999 | | 0.998 | |
| Tin | 9.73545E-04 | 66.71087 | 6.28929 | 183.3893 | 0.9999759 | | 0.998 | |
| Titanium | 1.56375E-04 | 66.68538 | 10.05273 | 196.0454 | 0.999992 | | 0.998 | |
| Vanadium | 2.961625E-05 | 66.67281 | 3.230227 | 178.8556 | 0.999998 | | 0.998 | |
| Zinc | 0.0036078 | 66.69735 | 53.0825 | 198.8446 | 0.9999921 | | 0.998 | |

# INITIAL CALIBRATION DATA

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1097001 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:37 4/7/11 9:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Aluminum | 0 | 0 | 5000 | 1.991E-05 | 10000 | 2.0478E-05 | | | 500000 | 2.0454E-05 | | |
| Antimony | 0 | 0 | 100 | 0.0008652 | 1000 | 9.2905E-04 | | | | | 10000 | 0.0009137 |
| Arsenic | 0 | 0 | 100 | 0.0002615 | 1000 | 2.9685E-04 | | | | | 10000 | 0.0002989 |
| Barium | 0 | 0 | 50 | 0.013737 | 1000 | 0.013189 | 5000 | 0.0130722 | | | | |
| Beryllium | 0 | 0 | 100 | 0.0023991 | 1000 | 0.0024148 | | | | | 10000 | 0.0024364 |
| Boron | 0 | 0 | 50 | 0.000013 | 1000 | 1.312E-05 | | | | | 5000 | 1.3194E-05 |
| Cadmium | 0 | 0 | 100 | 0.012433 | 1000 | 0.01299 | | | | | 10000 | 0.012451 |
| Calcium | 0 | 0 | 1100 | 3.505455E-05 | 50000 | 3.4846E-05 | | | | | 10000 | |
| Chromium | 0 | 0 | 100 | 0.0000302 | 1000 | 2.961E-05 | | | | | 10000 | 3.083E-05 |
| Cobalt | 0 | 0 | 100 | 0.0063148 | 1000 | 0.0064403 | | | | | 10000 | 0.0064861 |
| Copper | 0 | 0 | 100 | 0.0000902 | 1000 | 8.702E-05 | | | | | 10000 | 8.6397E-05 |
| Iron | 0 | 0 | 5100 | 0.0000136 | 10000 | 1.3401E-05 | | | 500000 | 1.31224E-05 | 10000 | |
| Lead | 0 | 0 | 100 | 0.0013917 | 1000 | 0.0014008 | | | | | 10000 | 0.0014008 |
| Magnesium | 0 | 0 | 5100 | | 50000 | 1.4338E-06 | | | 500000 | 1.54152E-06 | 10000 | |
| Manganese | 0 | 0 | 100 | 0.0002092 | 1000 | 2.0259E-04 | 10000 | 1.9385E-04 | | | 10000 | |
| Molybdenum | 0 | 0 | 100 | 0.0046297 | 1000 | 0.0047786 | | | | | 10000 | 0.0046234 |
| Nickel | 0 | 0 | 100 | 0.0032358 | 1000 | 0.0033933 | | | | | 10000 | 0.003453 |
| Potassium | 0 | 0 | 1000 | 9.66E-06 | 10000 | 1.0968E-05 | | | | | | |
| Selenium | 0 | 0 | 100 | 0.0004847 | 1000 | 0.0004896 | | | | | 10000 | 4.7336E-04 |
| Silver | 0 | 0 | 20 | 0.0000525 | 500 | 0.0000496 | 2000 | 5.163E-05 | | | | |
| Sodium | 0 | 0 | 1000 | | 50000 | 4.8402E-05 | | | | | | |
| Strontium | 0 | 0 | 100 | 0.001702 | 1000 | 0.001668 | | | | | 10000 | 0.001705 |
| Thallium | 0 | 0 | 100 | 0.0008984 | 1000 | 9.0546E-04 | | | | | 10000 | 9.0884E-04 |
| Tin | 0 | 0 | 50 | 0.0012692 | 1000 | 0.0013271 | | | | | 5000 | 1.29788E-03 |
| Titanium | 0 | 0 | 100 | 0.0002087 | 1000 | 2.0538E-04 | | | | | 10000 | 2.1142E-04 |
| Vanadium | 0 | 0 | 100 | 0.0000397 | 1000 | 3.911E-05 | | | | | 10000 | 3.9655E-05 |
| Zinc | 0 | 0 | 100 | 0.0047408 | 1000 | 0.0049112 | | | | | 10000 | 0.0047792 |

# INITIAL CALIBRATION DATA (Continued)

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1097001 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/7/11_8:37 4/7/11_9:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Aluminum | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | |
| Boron | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | |
| Calcium | 100000 | | 500000 | 3.4906E-05 | | | | | | | | |
| Chromium | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | |
| Magnesium | | | 100000 | 1.4735E-06 | | | | | | | | |
| Manganese | | | | | | | | | | | | |
| Molybdenum | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | |
| Potassium | 100000 | 1.114E-05 | | | | | | | | | | |
| Selenium | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | |
| Sodium | 100000 | 4.8054E-05 | 500000 | 4.7884E-05 | | | | | | | | |
| Strontium | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | |
| Tin | | | | | | | | | | | | |
| Titanium | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | |

# PREPARATION BATCH SUMMARY

## SW6010C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06001 Batch Matrix: Water Preparation: MET_3005A

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-084 | 1103257-13 | 04/06/11 07:37 | 50.00 | 50.00 |
| Blank | 1D06001-BLK1 | 04/06/11 07:37 | 50.00 | 50.00 |
| LCS | 1D06001-BS1 | 04/06/11 07:37 | 50.00 | 50.00 |

# BLANKS
## SW6010C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_004
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D09708
Calibration: 1097001

| Lab Sample ID | Analyte | Found | MDL | MRL | Units | C | Method |
|---|---|---|---|---|---|---|---|
| 1D09708-ICB1 | Lead | -0.1227 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB1 | Lead | 0.0633 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D06001-BLK1 | Lead | 0.148 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB2 | Lead | 0.0883 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D09708-CCB3 | Lead | 0.106 | 1.50 | 3.00 | ug/L | U | SW6010C |

# LCS / LCS DUPLICATE RECOVERY

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_004 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D06001 | Laboratory ID: | 1D06001-BS1 |
| Preparation: | MET_3005A | Initial/Final: | 50 mL / 50 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Lead | 250.0 | 240.0 | 96.0 | 80 - 120 |

# INITIAL AND CONTINUING CALIBRATION CHECK

## SW6010C

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Instrument ID: ME-ICP

SDG: CTOJM26_004

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units | Control Limit |
|---|---|---|---|---|---|---|
| 1D09708-ICV1 | Lead | 1000 | 1028 | 103 | ug/L | +/- 10.00% |
| 1D09708-CCV1 | Lead | 1000 | 1036 | 104 | ug/L | +/- 10.00% |
| 1D09708-CCV2 | Lead | 1000 | 968.7 | 96.9 | ug/L | +/- 10.00% |
| 1D09708-CCV3 | Lead | 1000 | 939.8 | 94.0 | ug/L | +/- 10.00% |

# CRDL STANDARD

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| 1D09708-CRL1 | Lead | 3.000 | 3.266 | 109 | ug/L | 80 - 120 |

# ICP INTERFERENCE CHECK SAMPLE

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_004

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1097001

Sequence: 1D09708

| Lab Sample ID | Analyte | True | Found | %R | Units |
|---|---|---|---|---|---|
| 1D09708-IFA1 | Lead | | 14.03 | | ug/L |
| 1D09708-IFB2 | Lead | 50.00 | 59.89 | 120 | ug/L |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_004

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** ME-ICP

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Lead | 1.50 | 3.00 | ug/L | SW6010C |

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_004

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Al | Ca | Fe | Mg | Ag |
| Lead | 220.3 | 0.0002980 | 0.0000000 | 0.0000080 | 0.0003250 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_004

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | As | B | Ba | Be | Cd |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_004

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Co | Cr | Cu | K | Mn |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0022600 | 0.0000000 | 0.0000990 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_004

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Mo | Na | Ni | Pb | Sb |
| Lead | 220.3 | -0.0026440 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_004

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Se | Sn | Ti | Tl | V |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0000360 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_004

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: Zn | | | | |
|---|---|---|---|---|---|---|
| Lead | 220.3 | 0.0000000 | | | | |

Comments:

FORM XA-IN

# ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010) SDG: CTOJM26_004

Project: NAS Pensacola CTO JM26 Saufley

ICP Instrument ID: ME-ICP Date: 09/11/2009

| Analyte | Integ. Time (Sec.) | Concentration ug/L | M |
|---|---|---|---|
| Lead | 15 | 10000 | P |

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 18, 2011** |
| **FROM:** | **A. COGNETTI** | **COPIES:** | **DV FILE** |

**SUBJECT:** **ORGANIC DATA VALIDATION: SELECT VOC/PAH/TRPH**
**INORGANIC DATA VALIDATION: LEAD**
**SAUFLEY FIELD, CTO JM26**
**SAMPLE DELIVERY GROUP (SDG) - CTOJM26_005**

**SAMPLES:** 12/Soil/Select VOC/PAH/TRPH

| | | | |
|---|---|---|---|
| 05-SS-055-0204 | 05-SS-056-0204 | 05-SS-057-0204 | 05-SS-058-0204 |
| 05-SS-059-0204 | 05-SS-060-0204 | 05-SS-061-0204 | 05-SS-062-0204 |
| 05-SS-062-0204-D | 05-SS-063-0204 | 05-SS-064-0204 | 05-SS-065-0204 |

3/Aqueous/Select VOC

Equip Blank 03 Trip Blank #9487 Trip Blank 9491

1/Aqueous/PAH/TRPH/Lead

Equip Blank 03

## OVERVIEW

The sample set for Saufley Field, CTO JM26, SDG CTOJM26_005 consisted of twelve (12) soil environmental samples, one (1) equipment blank and two (2) trip blanks. The samples were analyzed for a select list of volatile organic compounds (VOCs); benzene, ethylbenzene, methyl tert-butyl ether, toluene, and total xylenes. The soil samples and the equipment blank were also analyzed for polynuclear aromatic hydrocarbons (PAHs) and total recoverable petroleum hydrocarbons (TRPH). In addition, the equipment blank was analyzed for lead. One (1) field duplicate sample pair is included in this SDG; 05-SS-062-0204 / 05-SS-62-0204-D

The samples were collected by TetraTech NUS on April 4 and 5, 2011 and analyzed by Empirical Laboratories LLC. All analyses were conducted using USEPA SW-846 Methods 8260B for VOCs, 8270C for PAHs, 6010C for lead and Florida Petroleum Range Organics (FL-PRO) for TPH analytical and reporting protocols.

The sample data in this SDG were validated with regard to the following list of parameters.

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibration
* • Laboratory Blank Analyses
* • Field Duplicate Precision
* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

## VOC

No issues were identified.

**PAH**

No issues were identified.

**TRPH**

No issues were identified.

**LEAD**

No issues were identified.

**ADDITIONAL COMMENTS**

The equipment blank 03 contained benzo(a)anthracene, benzo(k)fluoranthene and naphthalene. No action was taken.

Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

**EXECUTIVE SUMMARY**

**Laboratory Performance Issues:** None.

**Other factors affecting data quality:** Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999), EPA Functional Guidelines for Inorganic Data Validation (October 2004), Site 5 Saufley Field Sample Analysis Plan (SAP) (December 2010), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

**Data Validation Qualifier Codes:**

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

| PROJ_NO: 02748 | NSAMPLE | 05-SS-055-0204 | | | 05-SS-056-0204 | | | 05-SS-057-0204 | | | 05-SS-058-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-10 | | | 1104050-09 | | | 1104050-08 | | | 1104050-07 | | |
| FRACTION: OV | SAMP_DATE | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 89.6 | | | 90.6 | | | 87.9 | | | 89.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00152 | U | | 0.00149 | U | | 0.00149 | U | | 0.0015 | U | |
| ETHYLBENZENE | | 0.00091 | U | | 0.00089 | U | | 0.00089 | U | | 0.0009 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00152 | U | | 0.00149 | U | | 0.00149 | U | | 0.0015 | U | |
| TOLUENE | | 0.00105 | U | | 0.00103 | U | | 0.00103 | U | | 0.00103 | U | |
| TOTAL XYLENES | | 0.00457 | U | | 0.00448 | U | | 0.00447 | U | | 0.0045 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-059-0204 | | | 05-SS-060-0204 | | | 05-SS-061-0204 | | | 05-SS-062-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-06 | | | 1104050-05 | | | 1104050-03 | | | 1104050-02 | | |
| FRACTION: OV | SAMP_DATE | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 90.9 | | | 88.1 | | | 87.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00139 | U | | 0.00143 | U | | 0.00144 | U | | 0.00127 | U | |
| ETHYLBENZENE | | 0.00083 | U | | 0.00085 | U | | 0.00086 | U | | 0.00075 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00139 | U | | 0.00143 | U | | 0.00144 | U | | 0.00127 | U | |
| TOLUENE | | 0.00095 | U | | 0.00098 | U | | 0.00099 | U | | 0.00087 | U | |
| TOTAL XYLENES | | 0.00417 | U | | 0.00429 | U | | 0.00433 | U | | 0.0038 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-062-0204-D | | | 05-SS-063-0204 | | | 05-SS-064-0204 | | | 05-SS-065-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-01 | | | 1104026-04 | | | 1104026-03 | | | 1104026-02 | | |
| FRACTION: OV | SAMP_DATE | 4/5/2011 | | | 4/4/2011 | | | 4/4/2011 | | | 4/4/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.2 | | | 92.3 | | | 92.5 | | | 90.5 | | |
| | DUP_OF | 05-SS-062-0204 | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00131 | U | | 0.00102 | U | | 0.00146 | U | | 0.00156 | U | |
| ETHYLBENZENE | | 0.00078 | U | | 0.00061 | U | | 0.00087 | U | | 0.00093 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00131 | U | | 0.00102 | U | | 0.00146 | U | | 0.00156 | U | |
| TOLUENE | | 0.0009 | U | | 0.0007 | U | | 0.00101 | U | | 0.00107 | U | |
| TOTAL XYLENES | | 0.00393 | U | | 0.00307 | U | | 0.00439 | U | | 0.00469 | U | |

| PROJ_NO: 02748 | NSAMPLE | EQUIP BLANK 03 | | | TRIPBLANK #9487 | | | TRIPBLANK 9491 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-11 | | | 1104050-04 | | | 1104026-01 | | |
| FRACTION: OV | SAMP_DATE | 4/5/2011 | | | 4/5/2011 | | | 4/4/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1,2-DIBROMOETHANE | | 0.01 | U | | | | | | | |
| BENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| ETHYLBENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TOLUENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TOTAL XYLENES | | 0.75 | U | | 0.75 | U | | 0.75 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-055-0204 | | | 05-SS-056-0204 | | | 05-SS-057-0204 | | | 05-SS-058-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-10 | | | 1104050-09 | | | 1104050-08 | | | 1104050-07 | | |
| FRACTION: PAH | SAMP_DATE | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 89.6 | | | 90.6 | | | 87.9 | | | 89.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| 2-METHYLNAPHTHALENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| ACENAPHTHENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| ACENAPHTHYLENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| ANTHRACENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| BENZO(A)ANTHRACENE | | 0.0157 | | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| BENZO(A)PYRENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| BENZO(B)FLUORANTHENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| BENZO(K)FLUORANTHENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| CHRYSENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| FLUORANTHENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| FLUORENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00204 | J | P |
| NAPHTHALENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| PHENANTHRENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |
| PYRENE | | 0.00186 | U | | 0.00175 | U | | 0.00184 | U | | 0.00175 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-059-0204 | | | 05-SS-060-0204 | | | 05-SS-061-0204 | | | 05-SS-062-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-06 | | | 1104050-05 | | | 1104050-03 | | | 1104050-02 | | |
| FRACTION: PAH | SAMP_DATE | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 90.9 | | | 88.1 | | | 87.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| 2-METHYLNAPHTHALENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| ACENAPHTHENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| ACENAPHTHYLENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| ANTHRACENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| BENZO(A)ANTHRACENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| BENZO(A)PYRENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| BENZO(B)FLUORANTHENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00182 | U | | 0.00298 | J | P | 0.0018 | U | | 0.00183 | U | |
| BENZO(K)FLUORANTHENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| CHRYSENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00182 | U | | 0.00319 | J | P | 0.0018 | U | | 0.00183 | U | |
| FLUORANTHENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| FLUORENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00182 | U | | 0.00229 | J | P | 0.0018 | U | | 0.00183 | U | |
| NAPHTHALENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| PHENANTHRENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |
| PYRENE | | 0.00182 | U | | 0.00174 | U | | 0.0018 | U | | 0.00183 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-062-0204-D | | | 05-SS-063-0204 | | | 05-SS-064-0204 | | | 05-SS-065-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-01 | | | 1104026-04 | | | 1104026-03 | | | 1104026-02 | | |
| FRACTION: PAH | SAMP_DATE | 4/5/2011 | | | 4/4/2011 | | | 4/4/2011 | | | 4/4/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.2 | | | 92.3 | | | 92.5 | | | 90.5 | | |
| | DUP_OF | 05-SS-062-0204 | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| 2-METHYLNAPHTHALENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| ACENAPHTHENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| ACENAPHTHYLENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| ANTHRACENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| BENZO(A)ANTHRACENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| BENZO(A)PYRENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| BENZO(B)FLUORANTHENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| BENZO(K)FLUORANTHENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| CHRYSENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| FLUORANTHENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| FLUORENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| NAPHTHALENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| PHENANTHRENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |
| PYRENE | | 0.00182 | U | | 0.00176 | U | | 0.00179 | U | | 0.00183 | U | |

| | | |
|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | EQUIP BLANK 03 |
| **SDG: CTOJM26_005** | LAB_ID | 1104050-11 |
| **FRACTION: PAH** | SAMP_DATE | 4/5/2011 |
| **MEDIA: WATER** | QC_TYPE | NM |
| | UNITS | UG/L |
| | PCT_SOLIDS | 0.0 |
| | DUP_OF | |

| PARAMETER | RESULT | VQL | QLCD |
|---|---|---|---|
| 1-METHYLNAPHTHALENE | 0.049 | U | |
| 2-METHYLNAPHTHALENE | 0.049 | U | |
| ACENAPHTHENE | 0.049 | U | |
| ACENAPHTHYLENE | 0.049 | U | |
| ANTHRACENE | 0.049 | U | |
| BENZO(A)ANTHRACENE | 0.229 | | |
| BENZO(A)PYRENE | 0.049 | U | |
| BENZO(B)FLUORANTHENE | 0.049 | U | |
| BENZO(G,H,I)PERYLENE | 0.049 | U | |
| BENZO(K)FLUORANTHENE | 0.055 | J | P |
| CHRYSENE | 0.049 | U | |
| DIBENZO(A,H)ANTHRACENE | 0.049 | U | |
| FLUORANTHENE | 0.049 | U | |
| FLUORENE | 0.049 | U | |
| INDENO(1,2,3-CD)PYRENE | 0.049 | U | |
| NAPHTHALENE | 0.108 | J | P |
| PHENANTHRENE | 0.049 | U | |
| PYRENE | 0.049 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-055-0204 | | | 05-SS-056-0204 | | | 05-SS-057-0204 | | | 05-SS-058-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-10 | | | 1104050-09 | | | 1104050-08 | | | 1104050-07 | | |
| FRACTION: PET | SAMP_DATE | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 89.6 | | | 90.6 | | | 87.9 | | | 89.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 18.8 | J | P | 11.9 | U | | 12.4 | U | | 44.6 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-059-0204 | | | 05-SS-060-0204 | | | 05-SS-061-0204 | | | 05-SS-062-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-06 | | | 1104050-05 | | | 1104050-03 | | | 1104050-02 | | |
| FRACTION: PET | SAMP_DATE | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | | 4/5/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 90.9 | | | 88.1 | | | 87.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.1 | U | | 16.8 | J | P | 12 | U | | 12 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-062-0204-D | | | 05-SS-063-0204 | | | 05-SS-064-0204 | | | 05-SS-065-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_005 | LAB_ID | 1104050-01 | | | 1104026-04 | | | 1104026-03 | | | 1104026-02 | | |
| FRACTION: PET | SAMP_DATE | 4/5/2011 | | | 4/4/2011 | | | 4/4/2011 | | | 4/4/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.2 | | | 92.3 | | | 92.5 | | | 90.5 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.9 | U | | 11.8 | U | | 11.4 | U | | 11.8 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | EQUIP BLANK 03 | | |
| **SDG: CTOJM26_005** | LAB_ID | 1104050-11 | | |
| **FRACTION: PET** | SAMP_DATE | 4/5/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | MG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.163 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | EQUIP BLANK 03 | | |
| **SDG: CTOJM26_005** | LAB_ID | 1104050-11 | | |
| **FRACTION: M** | SAMP_DATE | 4/5/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| LEAD | | 1.5 | U | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

05-SS-055-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-10 | File ID: | 0405010.D |
| Sampled: | 04/05/11 14:25 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 14:41 |
| Solids: | 89.56 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00152 | 0.00305 | 0.00610 | U |
| 100-41-4 | Ethylbenzene | | 0.000914 | 0.00305 | 0.00610 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00152 | 0.00305 | 0.00610 | U |
| 108-88-3 | Toluene | | 0.00105 | 0.00305 | 0.00610 | U |
| 1330-20-7 | Xylenes (total) | | 0.00457 | 0.00914 | 0.0183 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03657 | 0.03796 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03657 | 0.03679 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03657 | 0.03495 | 95.6 | 75 - 140 | |
| Toluene-d8 | 0.03657 | 0.03721 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-056-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-09 | File ID: | 0405009.D |
| Sampled: | 04/05/11 13:30 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 14:15 |
| Solids: | 90.57 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00149 | 0.00299 | 0.00597 | U |
| 100-41-4 | Ethylbenzene | | 0.000896 | 0.00299 | 0.00597 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00149 | 0.00299 | 0.00597 | U |
| 108-88-3 | Toluene | | 0.00103 | 0.00299 | 0.00597 | U |
| 1330-20-7 | Xylenes (total) | | 0.00448 | 0.00896 | 0.0179 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03585 | 0.03555 | 99.2 | 85 - 120 | |
| Dibromofluoromethane | 0.03585 | 0.03680 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03585 | 0.03662 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03585 | 0.03688 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-057-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-08 | File ID: | 0405008.D |
| Sampled: | 04/05/11 12:55 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 13:49 |
| Solids: | 87.87 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00149 | 0.00298 | 0.00596 | U |
| 100-41-4 | Ethylbenzene | | 0.000895 | 0.00298 | 0.00596 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00149 | 0.00298 | 0.00596 | U |
| 108-88-3 | Toluene | | 0.00103 | 0.00298 | 0.00596 | U |
| 1330-20-7 | Xylenes (total) | | 0.00447 | 0.00895 | 0.0179 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03579 | 0.03663 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03579 | 0.03675 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03579 | 0.03578 | 100 | 75 - 140 | |
| Toluene-d8 | 0.03579 | 0.03676 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-058-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-07 | File ID: | 0405007.D |
| Sampled: | 04/05/11 10:45 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 13:24 |
| Solids: | 89.80 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00150 | 0.00300 | 0.00600 | U |
| 100-41-4 | Ethylbenzene | | 0.000900 | 0.00300 | 0.00600 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00150 | 0.00300 | 0.00600 | U |
| 108-88-3 | Toluene | | 0.00103 | 0.00300 | 0.00600 | U |
| 1330-20-7 | Xylenes (total) | | 0.00450 | 0.00900 | 0.0180 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03600 | 0.03387 | 94.1 | 85 - 120 | |
| Dibromofluoromethane | 0.03600 | 0.03596 | 99.9 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03600 | 0.03601 | 100 | 75 - 140 | |
| Toluene-d8 | 0.03600 | 0.03739 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-059-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-06 | File ID: | 0405006.D |
| Sampled: | 04/05/11 10:10 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 12:59 |
| Solids: | 91.12 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00139 | 0.00278 | 0.00557 | U |
| 100-41-4 | Ethylbenzene | | 0.000835 | 0.00278 | 0.00557 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00139 | 0.00278 | 0.00557 | U |
| 108-88-3 | Toluene | | 0.000957 | 0.00278 | 0.00557 | U |
| 1330-20-7 | Xylenes (total) | | 0.00417 | 0.00835 | 0.0167 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03339 | 0.03389 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03339 | 0.03451 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03339 | 0.03336 | 99.9 | 75 - 140 | |
| Toluene-d8 | 0.03339 | 0.03413 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-060-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-05 | File ID: | 0405005.D |
| Sampled: | 04/05/11 09:35 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 12:33 |
| Solids: | 90.90 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00143 | 0.00286 | 0.00572 | U |
| 100-41-4 | Ethylbenzene | | 0.000858 | 0.00286 | 0.00572 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00143 | 0.00286 | 0.00572 | U |
| 108-88-3 | Toluene | | 0.000983 | 0.00286 | 0.00572 | U |
| 1330-20-7 | Xylenes (total) | | 0.00429 | 0.00858 | 0.0172 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03431 | 0.03107 | 90.6 | 85 - 120 | |
| Dibromofluoromethane | 0.03431 | 0.03484 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03431 | 0.03388 | 98.8 | 75 - 140 | |
| Toluene-d8 | 0.03431 | 0.03553 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-061-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-03 | File ID: | 0405003.D |
| Sampled: | 04/05/11 08:50 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 12:08 |
| Solids: | 88.11 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00144 | 0.00288 | 0.00577 | U |
| 100-41-4 | Ethylbenzene | | 0.000865 | 0.00288 | 0.00577 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00144 | 0.00288 | 0.00577 | U |
| 108-88-3 | Toluene | | 0.000992 | 0.00288 | 0.00577 | U |
| 1330-20-7 | Xylenes (total) | | 0.00433 | 0.00865 | 0.0173 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03460 | 0.03513 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03460 | 0.03552 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03460 | 0.03471 | 100 | 75 - 140 | |
| Toluene-d8 | 0.03460 | 0.03659 | 106 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-062-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-02 | File ID: | 0405002.D |
| Sampled: | 04/05/11 07:45 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 11:43 |
| Solids: | 87.87 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00127 | 0.00253 | 0.00506 | U |
| 100-41-4 | Ethylbenzene | | 0.000759 | 0.00253 | 0.00506 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00127 | 0.00253 | 0.00506 | U |
| 108-88-3 | Toluene | | 0.000871 | 0.00253 | 0.00506 | U |
| 1330-20-7 | Xylenes (total) | | 0.00380 | 0.00759 | 0.0152 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03038 | 0.02976 | 98.0 | 85 - 120 | |
| Dibromofluoromethane | 0.03038 | 0.03197 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03038 | 0.02952 | 97.2 | 75 - 140 | |
| Toluene-d8 | 0.03038 | 0.03204 | 105 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-062-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-01 | File ID: | 0405001.D |
| Sampled: | 04/05/11 07:45 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 11:18 |
| Solids: | 88.24 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00131 | 0.00262 | 0.00524 | U |
| 100-41-4 | Ethylbenzene | | 0.000786 | 0.00262 | 0.00524 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00131 | 0.00262 | 0.00524 | U |
| 108-88-3 | Toluene | | 0.000901 | 0.00262 | 0.00524 | U |
| 1330-20-7 | Xylenes (total) | | 0.00393 | 0.00786 | 0.0157 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03142 | 0.03092 | 98.4 | 85 - 120 | |
| Dibromofluoromethane | 0.03142 | 0.03281 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03142 | 0.03182 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03142 | 0.03328 | 106 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-063-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104026-04 | File ID: | 0402604.D |
| Sampled: | 04/04/11 17:15 | Prepared: | 04/06/11 00:00 | Analyzed: | 04/06/11 15:54 |
| Solids: | 92.32 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D06003 Sequence: 1D09701 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00102 | 0.00205 | 0.00409 | U |
| 100-41-4 | Ethylbenzene | | 0.000614 | 0.00205 | 0.00409 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00102 | 0.00205 | 0.00409 | U |
| 108-88-3 | Toluene | | 0.000704 | 0.00205 | 0.00409 | U |
| 1330-20-7 | Xylenes (total) | | 0.00307 | 0.00614 | 0.0123 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.02454 | 0.02477 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.02454 | 0.02472 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.02454 | 0.02513 | 102 | 75 - 140 | |
| Toluene-d8 | 0.02454 | 0.02573 | 105 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-064-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104026-03 | File ID: | 0402603.D |
| Sampled: | 04/04/11 16:35 | Prepared: | 04/06/11 00:00 | Analyzed: | 04/06/11 15:29 |
| Solids: | 92.50 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D06003 Sequence: 1D09701 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00146 | 0.00293 | 0.00585 | U |
| 100-41-4 | Ethylbenzene | | 0.000878 | 0.00293 | 0.00585 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00146 | 0.00293 | 0.00585 | U |
| 108-88-3 | Toluene | | 0.00101 | 0.00293 | 0.00585 | U |
| 1330-20-7 | Xylenes (total) | | 0.00439 | 0.00878 | 0.0176 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03510 | 0.03455 | 98.4 | 85 - 120 | |
| Dibromofluoromethane | 0.03510 | 0.03505 | 99.9 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03510 | 0.03534 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03510 | 0.03586 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-065-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104026-02 | File ID: | 0402602.D |
| Sampled: | 04/04/11 16:00 | Prepared: | 04/06/11 00:00 | Analyzed: | 04/06/11 15:05 |
| Solids: | 90.53 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D06003 Sequence: 1D09701 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00156 | 0.00312 | 0.00625 | U |
| 100-41-4 | Ethylbenzene | | 0.000937 | 0.00312 | 0.00625 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00156 | 0.00312 | 0.00625 | U |
| 108-88-3 | Toluene | | 0.00107 | 0.00312 | 0.00625 | U |
| 1330-20-7 | Xylenes (total) | | 0.00469 | 0.00937 | 0.0187 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03749 | 0.03841 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03749 | 0.03783 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03749 | 0.03861 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03749 | 0.03893 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK 03**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104050-11 | File ID: | 0405011.D |
| Sampled: | 04/05/11 15:00 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 19:40 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D07025 Sequence: 1D09804 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.57 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.83 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.94 | 103 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.41 | 101 | 85 - 120 | |

# ANALYSIS DATA SHEET

**TRIPBLANK #9487**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104050-04 | File ID: | 0405004.D |
| Sampled: | 04/05/11 00:00 | Prepared: | 04/07/11 00:00 | Analyzed: | 04/07/11 19:10 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D07025 Sequence: 1D09804 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.81 | 103 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.72 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 32.47 | 108 | 70 - 120 | |
| Toluene-d8 | 30.00 | 29.72 | 99.1 | 85 - 120 | |

# ANALYSIS DATA SHEET

**TRIPBLANK 9491**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104026-01 | File ID: | 0402601.D |
| Sampled: | 04/04/11 00:00 | Prepared: | 04/06/11 00:00 | Analyzed: | 04/06/11 11:44 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D06007 Sequence: 1D09704 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.18 | 104 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 32.63 | 109 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 33.46 | 112 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.82 | 103 | 85 - 120 | |

# ANALYSIS DATA SHEET

**05-SS-055-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-10 | File ID: | 0405010.D |
| Sampled: | 04/05/11 14:25 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/13/11 01:53 |
| Solids: | 89.56 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10414 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00186 | 0.00372 | 0.0149 | U |
| 208-96-8 | Acenaphthylene | | 0.00186 | 0.00372 | 0.0149 | U |
| 120-12-7 | Anthracene | | 0.00186 | 0.00372 | 0.0149 | U |
| 56-55-3 | Benzo(a)anthracene | 0.0157 | 0.00186 | 0.00372 | 0.0149 | |
| 50-32-8 | Benzo(a)pyrene | | 0.00186 | 0.00372 | 0.0149 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00186 | 0.00372 | 0.0149 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00186 | 0.00372 | 0.0149 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00186 | 0.00372 | 0.0149 | U |
| 218-01-9 | Chrysene | | 0.00186 | 0.00372 | 0.0149 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00186 | 0.00372 | 0.0149 | U |
| 206-44-0 | Fluoranthene | | 0.00186 | 0.00372 | 0.0149 | U |
| 86-73-7 | Fluorene | | 0.00186 | 0.00372 | 0.0149 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00186 | 0.00372 | 0.0149 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00186 | 0.00372 | 0.0149 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00186 | 0.00372 | 0.0149 | U |
| 91-20-3 | Naphthalene | | 0.00186 | 0.00372 | 0.0149 | U |
| 85-01-8 | Phenanthrene | | 0.00186 | 0.00372 | 0.0149 | U |
| 129-00-0 | Pyrene | | 0.00186 | 0.00372 | 0.0149 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.722 | 2.990 | 80.3 | 14 - 129 | |
| Terphenyl-d14 | 3.722 | 3.192 | 85.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-056-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-09 | File ID: | 0405009.D |
| Sampled: | 04/05/11 13:30 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/13/11 01:26 |
| Solids: | 90.57 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10414 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00349 | 0.0139 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00349 | 0.0139 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00349 | 0.0139 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00349 | 0.0139 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00349 | 0.0139 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00349 | 0.0139 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00349 | 0.0139 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00349 | 0.0139 | U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00349 | 0.0139 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00349 | 0.0139 | U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00349 | 0.0139 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00349 | 0.0139 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00175 | 0.00349 | 0.0139 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00349 | 0.0139 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00349 | 0.0139 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00349 | 0.0139 | U |
| 85-01-8 | Phenanthrene | | 0.00175 | 0.00349 | 0.0139 | U |
| 129-00-0 | Pyrene | | 0.00175 | 0.00349 | 0.0139 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.494 | 2.984 | 85.4 | 14 - 129 | |
| Terphenyl-d14 | 3.494 | 2.728 | 78.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-057-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-08 | File ID: | 0405008.D |
| Sampled: | 04/05/11 12:55 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/13/11 00:58 |
| Solids: | 87.87 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10414 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00184 | 0.00367 | 0.0146 | U |
| 208-96-8 | Acenaphthylene | | 0.00184 | 0.00367 | 0.0146 | U |
| 120-12-7 | Anthracene | | 0.00184 | 0.00367 | 0.0146 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00184 | 0.00367 | 0.0146 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00184 | 0.00367 | 0.0146 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00184 | 0.00367 | 0.0146 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00184 | 0.00367 | 0.0146 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00184 | 0.00367 | 0.0146 | U |
| 218-01-9 | Chrysene | | 0.00184 | 0.00367 | 0.0146 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00184 | 0.00367 | 0.0146 | U |
| 206-44-0 | Fluoranthene | | 0.00184 | 0.00367 | 0.0146 | U |
| 86-73-7 | Fluorene | | 0.00184 | 0.00367 | 0.0146 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00184 | 0.00367 | 0.0146 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00184 | 0.00367 | 0.0146 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00184 | 0.00367 | 0.0146 | U |
| 91-20-3 | Naphthalene | | 0.00184 | 0.00367 | 0.0146 | U |
| 85-01-8 | Phenanthrene | | 0.00184 | 0.00367 | 0.0146 | U |
| 129-00-0 | Pyrene | | 0.00184 | 0.00367 | 0.0146 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.671 | 2.962 | 80.7 | 14 - 129 | |
| Terphenyl-d14 | 3.671 | 2.938 | 80.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-058-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-07 | File ID: | 0405007.D |
| Sampled: | 04/05/11 10:45 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/13/11 00:30 |
| Solids: | 89.80 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10414 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00350 | 0.0140 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00350 | 0.0140 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00350 | 0.0140 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00350 | 0.0140 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00350 | 0.0140 | S, U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00350 | 0.0140 | S, U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00350 | 0.0140 | S, U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00350 | 0.0140 | S, U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00350 | 0.0140 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00350 | 0.0140 | S, U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00350 | 0.0140 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00350 | 0.0140 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00204 | 0.00175 | 0.00350 | 0.0140 | S, I |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00350 | 0.0140 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00350 | 0.0140 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00350 | 0.0140 | U |
| 85-01-8 | Phenanthrene | | 0.00175 | 0.00350 | 0.0140 | U |
| 129-00-0 | Pyrene | | 0.00175 | 0.00350 | 0.0140 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.502 | 2.862 | 81.7 | 14 - 129 | |
| Terphenyl-d14 | 3.502 | 2.737 | 78.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-059-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-06 | File ID: | 0405006.D |
| Sampled: | 04/05/11 10:10 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/13/11 00:03 |
| Solids: | 91.12 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10414 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00182 | 0.00363 | 0.0145 | U |
| 208-96-8 | Acenaphthylene | | 0.00182 | 0.00363 | 0.0145 | U |
| 120-12-7 | Anthracene | | 0.00182 | 0.00363 | 0.0145 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00182 | 0.00363 | 0.0145 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00182 | 0.00363 | 0.0145 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00182 | 0.00363 | 0.0145 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00182 | 0.00363 | 0.0145 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00182 | 0.00363 | 0.0145 | U |
| 218-01-9 | Chrysene | | 0.00182 | 0.00363 | 0.0145 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00182 | 0.00363 | 0.0145 | U |
| 206-44-0 | Fluoranthene | | 0.00182 | 0.00363 | 0.0145 | U |
| 86-73-7 | Fluorene | | 0.00182 | 0.00363 | 0.0145 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00182 | 0.00363 | 0.0145 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00182 | 0.00363 | 0.0145 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00182 | 0.00363 | 0.0145 | U |
| 91-20-3 | Naphthalene | | 0.00182 | 0.00363 | 0.0145 | U |
| 85-01-8 | Phenanthrene | | 0.00182 | 0.00363 | 0.0145 | U |
| 129-00-0 | Pyrene | | 0.00182 | 0.00363 | 0.0145 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.634 | 2.777 | 76.4 | 14 - 129 | |
| Terphenyl-d14 | 3.634 | 2.721 | 74.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-060-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-05 | File ID: | 0405005.D |
| Sampled: | 04/05/11 09:35 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 23:35 |
| Solids: | 90.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10414 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00174 | 0.00348 | 0.0139 | U |
| 208-96-8 | Acenaphthylene | | 0.00174 | 0.00348 | 0.0139 | U |
| 120-12-7 | Anthracene | | 0.00174 | 0.00348 | 0.0139 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00174 | 0.00348 | 0.0139 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00174 | 0.00348 | 0.0139 | S, U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00174 | 0.00348 | 0.0139 | S, U |
| 191-24-2 | Benzo(g,h,i)perylene | 0.00298 | 0.00174 | 0.00348 | 0.0139 | S, I |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00174 | 0.00348 | 0.0139 | S, U |
| 218-01-9 | Chrysene | | 0.00174 | 0.00348 | 0.0139 | U |
| 53-70-3 | Dibenz(a,h)anthracene | 0.00319 | 0.00174 | 0.00348 | 0.0139 | S, I |
| 206-44-0 | Fluoranthene | | 0.00174 | 0.00348 | 0.0139 | U |
| 86-73-7 | Fluorene | | 0.00174 | 0.00348 | 0.0139 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00229 | 0.00174 | 0.00348 | 0.0139 | S, I |
| 90-12-0 | 1-Methylnaphthalene | | 0.00174 | 0.00348 | 0.0139 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00174 | 0.00348 | 0.0139 | U |
| 91-20-3 | Naphthalene | | 0.00174 | 0.00348 | 0.0139 | U |
| 85-01-8 | Phenanthrene | | 0.00174 | 0.00348 | 0.0139 | U |
| 129-00-0 | Pyrene | | 0.00174 | 0.00348 | 0.0139 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.481 | 2.820 | 81.0 | 14 - 129 | |
| Terphenyl-d14 | 3.481 | 2.646 | 76.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-061-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-03 | File ID: | 0405003.D |
| Sampled: | 04/05/11 08:50 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 18:34 |
| Solids: | 88.11 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00359 | 0.0143 | U |
| 120-12-7 | Anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00180 | 0.00359 | 0.0143 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 218-01-9 | Chrysene | | 0.00180 | 0.00359 | 0.0143 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00180 | 0.00359 | 0.0143 | U |
| 206-44-0 | Fluoranthene | | 0.00180 | 0.00359 | 0.0143 | U |
| 86-73-7 | Fluorene | | 0.00180 | 0.00359 | 0.0143 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 91-20-3 | Naphthalene | | 0.00180 | 0.00359 | 0.0143 | U |
| 85-01-8 | Phenanthrene | | 0.00180 | 0.00359 | 0.0143 | U |
| 129-00-0 | Pyrene | | 0.00180 | 0.00359 | 0.0143 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.592 | 2.795 | 77.8 | 14 - 129 | |
| Terphenyl-d14 | 3.592 | 2.699 | 75.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-062-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-02 | File ID: | 0405002.D |
| Sampled: | 04/05/11 07:45 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 18:06 |
| Solids: | 87.87 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00183 | 0.00364 | 0.0146 | U |
| 208-96-8 | Acenaphthylene | | 0.00183 | 0.00364 | 0.0146 | U |
| 120-12-7 | Anthracene | | 0.00183 | 0.00364 | 0.0146 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00183 | 0.00364 | 0.0146 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00183 | 0.00364 | 0.0146 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00183 | 0.00364 | 0.0146 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00183 | 0.00364 | 0.0146 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00183 | 0.00364 | 0.0146 | U |
| 218-01-9 | Chrysene | | 0.00183 | 0.00364 | 0.0146 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00183 | 0.00364 | 0.0146 | U |
| 206-44-0 | Fluoranthene | | 0.00183 | 0.00364 | 0.0146 | U |
| 86-73-7 | Fluorene | | 0.00183 | 0.00364 | 0.0146 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00183 | 0.00364 | 0.0146 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00183 | 0.00364 | 0.0146 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00183 | 0.00364 | 0.0146 | U |
| 91-20-3 | Naphthalene | | 0.00183 | 0.00364 | 0.0146 | U |
| 85-01-8 | Phenanthrene | | 0.00183 | 0.00364 | 0.0146 | U |
| 129-00-0 | Pyrene | | 0.00183 | 0.00364 | 0.0146 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.648 | 2.750 | 75.4 | 14 - 129 | |
| Terphenyl-d14 | 3.648 | 2.872 | 78.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-062-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-01 | File ID: | 0405001.D |
| Sampled: | 04/05/11 07:45 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 17:38 |
| Solids: | 88.24 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00182 | 0.00363 | 0.0145 | U |
| 208-96-8 | Acenaphthylene | | 0.00182 | 0.00363 | 0.0145 | U |
| 120-12-7 | Anthracene | | 0.00182 | 0.00363 | 0.0145 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00182 | 0.00363 | 0.0145 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00182 | 0.00363 | 0.0145 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00182 | 0.00363 | 0.0145 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00182 | 0.00363 | 0.0145 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00182 | 0.00363 | 0.0145 | U |
| 218-01-9 | Chrysene | | 0.00182 | 0.00363 | 0.0145 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00182 | 0.00363 | 0.0145 | U |
| 206-44-0 | Fluoranthene | | 0.00182 | 0.00363 | 0.0145 | U |
| 86-73-7 | Fluorene | | 0.00182 | 0.00363 | 0.0145 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00182 | 0.00363 | 0.0145 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00182 | 0.00363 | 0.0145 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00182 | 0.00363 | 0.0145 | U |
| 91-20-3 | Naphthalene | | 0.00182 | 0.00363 | 0.0145 | U |
| 85-01-8 | Phenanthrene | | 0.00182 | 0.00363 | 0.0145 | U |
| 129-00-0 | Pyrene | | 0.00182 | 0.00363 | 0.0145 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.632 | 0.03353 | 0.923 | 14 - 129 | * |
| Terphenyl-d14 | 3.632 | 2.888 | 79.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-063-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104026-04 | File ID: | 0402604.D |
| Sampled: | 04/04/11 17:15 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 17:09 |
| Solids: | 92.32 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00176 | 0.00351 | 0.0140 | U |
| 208-96-8 | Acenaphthylene | | 0.00176 | 0.00351 | 0.0140 | U |
| 120-12-7 | Anthracene | | 0.00176 | 0.00351 | 0.0140 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00176 | 0.00351 | 0.0140 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00176 | 0.00351 | 0.0140 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00176 | 0.00351 | 0.0140 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00176 | 0.00351 | 0.0140 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00176 | 0.00351 | 0.0140 | U |
| 218-01-9 | Chrysene | | 0.00176 | 0.00351 | 0.0140 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00176 | 0.00351 | 0.0140 | U |
| 206-44-0 | Fluoranthene | | 0.00176 | 0.00351 | 0.0140 | U |
| 86-73-7 | Fluorene | | 0.00176 | 0.00351 | 0.0140 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00176 | 0.00351 | 0.0140 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00176 | 0.00351 | 0.0140 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00176 | 0.00351 | 0.0140 | U |
| 91-20-3 | Naphthalene | | 0.00176 | 0.00351 | 0.0140 | U |
| 85-01-8 | Phenanthrene | | 0.00176 | 0.00351 | 0.0140 | U |
| 129-00-0 | Pyrene | | 0.00176 | 0.00351 | 0.0140 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.517 | 3.112 | 88.5 | 14 - 129 | |
| Terphenyl-d14 | 3.517 | 2.906 | 82.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-064-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104026-03 | File ID: | 0402603.D |
| Sampled: | 04/04/11 16:35 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 16:41 |
| Solids: | 92.50 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00358 | 0.0143 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00358 | 0.0143 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00179 | 0.00358 | 0.0143 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00179 | 0.00358 | 0.0143 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00179 | 0.00358 | 0.0143 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 218-01-9 | Chrysene | | 0.00179 | 0.00358 | 0.0143 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00358 | 0.0143 | U |
| 206-44-0 | Fluoranthene | | 0.00179 | 0.00358 | 0.0143 | U |
| 86-73-7 | Fluorene | | 0.00179 | 0.00358 | 0.0143 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00179 | 0.00358 | 0.0143 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00358 | 0.0143 | U |
| 85-01-8 | Phenanthrene | | 0.00179 | 0.00358 | 0.0143 | U |
| 129-00-0 | Pyrene | | 0.00179 | 0.00358 | 0.0143 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.580 | 2.920 | 81.6 | 14 - 129 | |
| Terphenyl-d14 | 3.580 | 2.676 | 74.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-065-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104026-02 | File ID: | 0402602.D |
| Sampled: | 04/04/11 16:00 | Prepared: | 04/08/11 11:20 | Analyzed: | 04/12/11 16:13 |
| Solids: | 90.53 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00183 | 0.00365 | 0.0146 | U |
| 208-96-8 | Acenaphthylene | | 0.00183 | 0.00365 | 0.0146 | U |
| 120-12-7 | Anthracene | | 0.00183 | 0.00365 | 0.0146 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00183 | 0.00365 | 0.0146 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00183 | 0.00365 | 0.0146 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00183 | 0.00365 | 0.0146 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00183 | 0.00365 | 0.0146 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00183 | 0.00365 | 0.0146 | U |
| 218-01-9 | Chrysene | | 0.00183 | 0.00365 | 0.0146 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00183 | 0.00365 | 0.0146 | U |
| 206-44-0 | Fluoranthene | | 0.00183 | 0.00365 | 0.0146 | U |
| 86-73-7 | Fluorene | | 0.00183 | 0.00365 | 0.0146 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00183 | 0.00365 | 0.0146 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00183 | 0.00365 | 0.0146 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00183 | 0.00365 | 0.0146 | U |
| 91-20-3 | Naphthalene | | 0.00183 | 0.00365 | 0.0146 | U |
| 85-01-8 | Phenanthrene | | 0.00183 | 0.00365 | 0.0146 | U |
| 129-00-0 | Pyrene | | 0.00183 | 0.00365 | 0.0146 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.658 | 2.999 | 82.0 | 14 - 129 | |
| Terphenyl-d14 | 3.658 | 2.815 | 77.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK 03**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104050-11 | File ID: | 0405011.D |
| Sampled: | 04/05/11 15:00 | Prepared: | 04/11/11 13:56 | Analyzed: | 04/14/11 20:13 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D11008 Sequence: 1D10520 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0490 | 0.0980 | 0.196 | U |
| 208-96-8 | Acenaphthylene | | 0.0490 | 0.0980 | 0.196 | U |
| 120-12-7 | Anthracene | | 0.0490 | 0.0980 | 0.196 | U |
| 56-55-3 | Benzo(a)anthracene | 0.229 | 0.0490 | 0.0980 | 0.196 | |
| 50-32-8 | Benzo(a)pyrene | | 0.0490 | 0.0980 | 0.196 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0490 | 0.0980 | 0.196 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0490 | 0.0980 | 0.196 | U |
| 207-08-9 | Benzo(k)fluoranthene | 0.0550 | 0.0490 | 0.0980 | 0.196 | 1 |
| 218-01-9 | Chrysene | | 0.0490 | 0.0980 | 0.196 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0490 | 0.0980 | 0.196 | U |
| 206-44-0 | Fluoranthene | | 0.0490 | 0.0980 | 0.196 | U |
| 86-73-7 | Fluorene | | 0.0490 | 0.0980 | 0.196 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0490 | 0.0980 | 0.196 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0490 | 0.0980 | 0.196 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0490 | 0.0980 | 0.196 | U |
| 91-20-3 | Naphthalene | 0.108 | 0.0490 | 0.0980 | 0.196 | I |
| 85-01-8 | Phenanthrene | | 0.0490 | 0.0980 | 0.196 | U |
| 129-00-0 | Pyrene | | 0.0490 | 0.0980 | 0.196 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 49.02 | 43.68 | 89.1 | 34 - 167 | |
| Terphenyl-d14 | 49.02 | 47.24 | 96.4 | 34 - 167 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK 03**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104050-11 | File ID: | 011R0201.D |
| Sampled: | 04/05/11 15:00 | Prepared: | 04/11/11 13:00 | Analyzed: | 04/13/11 12:28 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D09902 Sequence: 1D10420 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane [2C] | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

05-SS-055-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-10 | File ID: | 016F1601.D |
| Sampled: | 04/05/11 14:25 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 19:07 |
| Solids: | 89.56 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 18.8 | 12.1 | 24.2 | 48.5 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.673 | 2.591 | 70.6 | 50 - 150 | |
| o-Terphenyl | 3.673 | 2.619 | 71.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-056-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-09 | File ID: | 015F1501.D |
| Sampled: | 04/05/11 13:30 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 18:25 |
| Solids: | 90.57 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.608 | 2.474 | 68.6 | 50 - 150 | |
| o-Terphenyl | 3.608 | 2.479 | 68.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-057-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-08 | File ID: | 014F1401.D |
| Sampled: | 04/05/11 12:55 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 17:42 |
| Solids: | 87.87 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.4 | 24.7 | 49.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.744 | 2.870 | 76.7 | 50 - 150 | |
| o-Terphenyl | 3.744 | 2.732 | 73.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-058-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-07 | File ID: | 013F1301.D |
| Sampled: | 04/05/11 10:45 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 17:00 |
| Solids: | 89.80 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 44.6 | 12.1 | 24.2 | 48.4 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.663 | 2.656 | 72.5 | 50 - 150 | |
| o-Terphenyl | 3.663 | 2.577 | 70.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-059-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-06 | File ID: | 012F1201.D |
| Sampled: | 04/05/11 10:10 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 16:17 |
| Solids: | 91.12 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.1 | 24.1 | 48.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.658 | 2.319 | 63.4 | 50 - 150 | |
| o-Terphenyl | 3.658 | 2.322 | 63.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-060-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-05 | File ID: | 011F1101.D |
| Sampled: | 04/05/11 09:35 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 15:34 |
| Solids: | 90.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 16.8 | 12.0 | 24.0 | 48.1 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.643 | 2.932 | 80.5 | 50 - 150 | |
| o-Terphenyl | 3.643 | 2.759 | 75.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-061-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104050-03 | File ID: | 008F0801.D |
| Sampled: | 04/05/11 08:50 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 13:26 |
| Solids: | 88.11 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.0 | 24.0 | 48.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.638 | 2.796 | 76.9 | 50 - 150 | |
| o-Terphenyl | 3.638 | 2.650 | 72.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-062-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-02 | File ID: | 007F0701.D |
| Sampled: | 04/05/11 07:45 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 12:44 |
| Solids: | 87.87 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.0 | 23.9 | 47.8 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.624 | 2.550 | 70.4 | 50 - 150 | |
| o-Terphenyl | 3.624 | 2.422 | 66.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-062-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104050-01 | File ID: | 006F0601.D |
| Sampled: | 04/05/11 07:45 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 12:01 |
| Solids: | 88.24 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.609 | 2.565 | 71.1 | 50 - 150 | |
| o-Terphenyl | 3.609 | 2.405 | 66.6 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-063-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104026-04 | File ID: | 025F2501.D |
| Sampled: | 04/04/11 17:15 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/11/11 04:49 |
| Solids: | 92.32 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.7 | 47.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.587 | 2.946 | 82.1 | 50 - 150 | |
| o-Terphenyl | 3.587 | 2.505 | 69.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-064-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104026-03 | File ID: | 024F2401.D |
| Sampled: | 04/04/11 16:35 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/11/11 04:06 |
| Solids: | 92.50 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.9 | 45.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.465 | 3.037 | 87.6 | 50 - 150 | |
| o-Terphenyl | 3.465 | 2.491 | 71.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-065-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104026-02 | File ID: | 023F2301.D |
| Sampled: | 04/04/11 16:00 | Prepared: | 04/08/11 20:01 | Analyzed: | 04/11/11 03:24 |
| Solids: | 90.53 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.7 | 47.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.587 | 2.523 | 70.3 | 50 - 150 | |
| o-Terphenyl | 3.587 | 2.489 | 69.4 | 35 - 140 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK 03**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104050-11 | File ID: | 022F2001.D |
| Sampled: | 04/05/11 15:00 | Prepared: | 04/11/11 13:56 | Analyzed: | 04/14/11 04:55 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D11006 Sequence: 1D10404 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.163 | 0.327 | 0.654 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04808 | 0.03386 | 70.4 | 50 - 150 | |
| o-Terphenyl | 0.04808 | 0.02960 | 61.6 | 82 - 142 | * |

# ANALYSIS DATA SHEET

**EQUIP BLANK 03**

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Water
Sampled: 04/05/11 15:00
% Solids: 0.00

SDG: CTOJM26_005
Project: NAS Pensacola CTO JM26 Saufley
Laboratory ID: 1104050-11
Received: 04/06/11 08:30

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | | 1.50 | 3.00 | 3.00 | 1 | U | SW6010C | ID14003 | 04/19/11 22:34 |

# APPENDIX C

## SUPPORT DOCUMENTATION

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
The matrix spike duplicate 1D07008-MSD1 was analyzed 21 hours 11 minutes after the associated tune standard due to an instrument malfunction.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8270C:**
The surrogate 2-Fluorobiphenyl exceeded criteria with a negative bias in sample 1104050-01.

The internal standard Perylene-d12 exceeded criteria with a negative bias in samples 1104050-05 and -07.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
The surrogate o-Terphenyl exceeded criteria with a negative bias in 1D11006-BLK1, -BS1, -BSD1, and 1104050-11. The surrogates o-Terphenyl and 2-Fluorobiphenyl exceeded the retention time window in 1D05022-BLK1 and 1104026-02, -03, and -04. The result bias due to the retention time shift was determined to be negligible for all affected samples and QC.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8011:**
Sample 1104050-11 and batch QC associated to batch 1D09902 were reported only from column 2 due to instrument issues on column 1 and no positive results on column 2 that needed to be confirmed.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW6010C:**
No anomalies or deviations are noted.

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 2779 PAGE 1 OF 1

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Saufley Field Site 05 | PROJECT MANAGER Geoff Pope | PHONE NUMBER 850 385 9899 | LABORATORY NAME AND CONTACT: Empirical Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850 294 2830 | ADDRESS 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG AG AG
PRESERVATIVE USED: HZO MeOH

| DATE YEAR 2011 | 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 | BTEX, MTBE | PAH | TRPH | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4/4 | — | TripBlank 9491 | — | — | — | QC | G | 2 | ✓ | — | — | 1104026-01 EJHY |
| | 1600 | 05-SS-065-0204 | SB065 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | -02 1mt SJO |
| | 1635 | 05-SS-064-0204 | SB064 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | -03 |
| | 1715 | 05-SS-063-0204 | SB063 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | -04 ✓ |
| | | | | | | | | | | | | temp blank in cooler |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | 4.4.11 | 1800 | 1. RECEIVED BY | | |
| 2. RELINQUISHED BY | | | 2. RECEIVED BY | | |
| 3. RELINQUISHED BY | | | 3. RECEIVED BY 2.0°C | 4-5-11 | 0830 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

10

CTOJM26_005 Summ Package

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1104026 Number of Coolers: 1 of 1

Client: Tetra Tech NUS, INC Project: Sgt Key Field

Date/Time Received: 4-5-11/08:30 Date cooler(s) opened: 4-5-11

Opened By (print): Chris Ponds (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: 5596

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 4-4-11 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: Initial Value: 2.3 °C Correction Factor: -0.3 °C Final Value: 2.0 °C

Dates samples were logged-in: 4-5-11

9. Initial this form to acknowledge login of sample(s): (Name): Chris Ponds (Initial): CP

| | | | |
|---|---|---|---|
| 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 |

If Non-Conformance issues were present, list by sample ID: _____

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2782 | PAGE 1 OF 1

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112902748 | FACILITY: Saufley Field | PROJECT MANAGER Geoff Pope | PHONE NUMBER 850-385-9899 | LABORATORY NAME AND CONTACT: EMPIRICAL Brian Richard |
| SAMPLERS (SIGNATURE) M Brock | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850-294-2830 | ADDRESS 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER 8684-5094-5600 | | CITY, STATE Nashville TN 37228 |

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

| | DATE YEAR 2011 | 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 | BTEX, MTBE (H2O) | PAH (soil) | TRPH (soil) | VOCs (H2O) | EDB (H2O) | PAH (H2O) | TRPH (H2O) | Total Pb (H2O) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONTAINER TYPE PLASTIC (P) or GLASS (G) | | | | | | | | | | CG | AG | AG | CG | CG | AG | AG | P | |
| PRESERVATIVE USED | | | | | | | | | | MeOH H2O | ice | ice | HCl | HCl | ice | HCl | HNO3 | |
| -01 | 4/5 | 0745 | 05-SS-062-0204-D | SB062 | 2 | 4 | QC | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -01 |
| -02 | | 0745 | 05-SS-062-0204 | SB062 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -02 |
| -03 | | 0850 | 05-SS-061-0204 | SB061 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -03 |
| | | 0850 | 05-SS-061-0204-MS | SB061 | 2 | 4 | QC | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | ↓ |
| | | 0850 | 05-SS-061-0204-MSD | SB061 | 2 | 4 | QC | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | ↓ |
| 04 | | — | Trip Blank # 9487 | — | — | — | QC | G | 2 | ✓ | — | — | — | — | — | — | — | -04 |
| 0935 | | ~~0935~~ | 05-SS-060-0204 | ~~SB059~~ SB060 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -05 |
| 1010 | | ~~0935~~ | 05-SS-059-0204 | SB059 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -06 |
| | | 1045 | 05-SS-058-0204 | SB058 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -07 |
| | | 1255 | 05-SS-057-0204 | SB057 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -08 |
| | | 1330 | 05-SS-056-0204 | SB056 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -09 2 coolers 1 med 1 small (amber) |
| | | 1425 | 05-SS-055-0204 | SB055 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -10 |
| | | 1500 | Equip Blank 03 | | | | QC | G | 9 | — | — | — | ✓ | ✓ | ✓ | ✓ | ✓ | (coring sleeve) -11 |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | DATE 4.5.11 | TIME 1600 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME 2PM 4-6-11 |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY 1.4°C | DATE 4-6-11 | TIME 08:30 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

12

CTOJM26_005 Summ Package

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1104050 Number of Coolers: 1 of 2

Client: Tetra Tech NUS Project: Sanflex Field

Date/Time Received: 4.6.11 0830 Date cooler(s) opened: 4.6.11

Opened By (print): Reginald Talley (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: 5600

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 4.5.11 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: Initial Value: 1.7 °C Correction Factor: -0.3 °C Final Value: 1.4 °C

Dates samples were logged-in: 4-6-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID:

ph < 2 for all VOAs noted

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1104050 Number of Coolers: 2 of 2

Client: Tetra Tech NUS Project: Sanflay Field

Date/Time Received: 4.6.11 0830 Date cooler(s) opened: 4.6.11

Opened By (print): Reginald Talley (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: 8744

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 4.5.11 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: Initial Value: 2.1 °C Correction Factor: -0.3 °C Final Value: 1.8 °C

Dates samples were logged-in: 4-6-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: _____

SCC 1 of 2

# HOLDTIME

**SDG** CTOJM26_005

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | EQUIP BLANK 03 | 1104050-11 | NM | 04/05/2011 | 04/14/2011 | 04/19/2011 | 9 | 5 | 14 |
| EDB | UG/L | EQUIP BLANK 03 | 1104050-11 | NM | 04/05/2011 | 04/11/2011 | 04/13/2011 | 6 | 2 | 8 |
| OV | MG/KG | 05-SS-065-0204 | 1104026-02 | NM | 04/04/2011 | 04/06/2011 | 04/06/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-055-0204 | 1104050-10 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-056-0204 | 1104050-09 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-057-0204 | 1104050-08 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-058-0204 | 1104050-07 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-059-0204 | 1104050-06 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-060-0204 | 1104050-05 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-061-0204 | 1104050-03 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-062-0204 | 1104050-02 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-062-0204-D | 1104050-01 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-063-0204 | 1104026-04 | NM | 04/04/2011 | 04/06/2011 | 04/06/2011 | 2 | 0 | 2 |
| OV | MG/KG | 05-SS-064-0204 | 1104026-03 | NM | 04/04/2011 | 04/06/2011 | 04/06/2011 | 2 | 0 | 2 |
| OV | UG/L | TRIPBLANK 9491 | 1104026-01 | NM | 04/04/2011 | 04/06/2011 | 04/06/2011 | 2 | 0 | 2 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | UG/L | EQUIP BLANK 03 | 1104050-11 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| OV | UG/L | TRIPBLANK #9487 | 1104050-04 | NM | 04/05/2011 | 04/07/2011 | 04/07/2011 | 2 | 0 | 2 |
| SIM | MG/KG | 05-SS-060-0204 | 1104050-05 | NM | 04/05/2011 | 04/08/2011 | 04/12/2011 | 3 | 4 | 7 |
| SIM | MG/KG | 05-SS-055-0204 | 1104050-10 | NM | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-055-0204 | 1104050-10 | SUR | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-056-0204 | 1104050-09 | NM | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-056-0204 | 1104050-09 | SUR | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-057-0204 | 1104050-08 | NM | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-057-0204 | 1104050-08 | SUR | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-058-0204 | 1104050-07 | NM | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-058-0204 | 1104050-07 | SUR | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-059-0204 | 1104050-06 | NM | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | MG/KG | 05-SS-060-0204 | 1104050-05 | SUR | 04/05/2011 | 04/08/2011 | 04/12/2011 | 3 | 4 | 7 |
| SIM | MG/KG | 05-SS-061-0204 | 1104050-03 | NM | 04/05/2011 | 04/08/2011 | 04/12/2011 | 3 | 4 | 7 |
| SIM | MG/KG | 05-SS-061-0204 | 1104050-03 | SUR | 04/05/2011 | 04/08/2011 | 04/12/2011 | 3 | 4 | 7 |
| SIM | MG/KG | 05-SS-062-0204 | 1104050-02 | NM | 04/05/2011 | 04/08/2011 | 04/12/2011 | 3 | 4 | 7 |
| SIM | MG/KG | 05-SS-062-0204 | 1104050-02 | SUR | 04/05/2011 | 04/08/2011 | 04/12/2011 | 3 | 4 | 7 |
| SIM | MG/KG | 05-SS-062-0204-D | 1104050-01 | NM | 04/05/2011 | 04/08/2011 | 04/12/2011 | 3 | 4 | 7 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-062-0204-D | 1104050-01 | SUR | 04/05/2011 | 04/08/2011 | 04/12/2011 | 3 | 4 | 7 |
| SIM | MG/KG | 05-SS-063-0204 | 1104026-04 | NM | 04/04/2011 | 04/08/2011 | 04/12/2011 | 4 | 4 | 8 |
| SIM | MG/KG | 05-SS-063-0204 | 1104026-04 | SUR | 04/04/2011 | 04/08/2011 | 04/12/2011 | 4 | 4 | 8 |
| SIM | MG/KG | 05-SS-064-0204 | 1104026-03 | NM | 04/04/2011 | 04/08/2011 | 04/12/2011 | 4 | 4 | 8 |
| SIM | MG/KG | 05-SS-064-0204 | 1104026-03 | SUR | 04/04/2011 | 04/08/2011 | 04/12/2011 | 4 | 4 | 8 |
| SIM | MG/KG | 05-SS-065-0204 | 1104026-02 | NM | 04/04/2011 | 04/08/2011 | 04/12/2011 | 4 | 4 | 8 |
| SIM | MG/KG | 05-SS-065-0204 | 1104026-02 | SUR | 04/04/2011 | 04/08/2011 | 04/12/2011 | 4 | 4 | 8 |
| SIM | MG/KG | 05-SS-059-0204 | 1104050-06 | SUR | 04/05/2011 | 04/08/2011 | 04/13/2011 | 3 | 5 | 8 |
| SIM | UG/L | EQUIP BLANK 03 | 1104050-11 | NM | 04/05/2011 | 04/11/2011 | 04/14/2011 | 6 | 3 | 9 |
| SIM | UG/L | EQUIP BLANK 03 | 1104050-11 | SUR | 04/05/2011 | 04/11/2011 | 04/14/2011 | 6 | 3 | 9 |
| TPH | MG/KG | 05-SS-056-0204 | 1104050-09 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-057-0204 | 1104050-08 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-058-0204 | 1104050-07 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-059-0204 | 1104050-06 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-060-0204 | 1104050-05 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-061-0204 | 1104050-03 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-062-0204 | 1104050-02 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |
| TPH | MG/KG | 05-SS-062-0204-D | 1104050-01 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-063-0204 | 1104026-04 | NM | 04/04/2011 | 04/08/2011 | 04/11/2011 | 4 | 3 | 7 |
| TPH | MG/KG | 05-SS-064-0204 | 1104026-03 | NM | 04/04/2011 | 04/08/2011 | 04/11/2011 | 4 | 3 | 7 |
| TPH | MG/KG | 05-SS-065-0204 | 1104026-02 | NM | 04/04/2011 | 04/08/2011 | 04/11/2011 | 4 | 3 | 7 |
| TPH | MG/KG | 05-SS-055-0204 | 1104050-10 | NM | 04/05/2011 | 04/18/2011 | 04/19/2011 | 13 | 1 | 14 |
| TPH | MG/L | EQUIP BLANK 03 | 1104050-11 | NM | 04/05/2011 | 04/11/2011 | 04/14/2011 | 6 | 3 | 9 |

# HOLDING TIME SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| TRIPBLANK 9491 | 04/04/11 00:00 | 04/05/11 08:30 | 04/06/11 00:00 | N/A | 14.00 | 04/06/11 11:44 | 2.53 | 14.00 | |
| 05-SS-065-0204 | 04/04/11 16:00 | 04/05/11 08:30 | 04/06/11 00:00 | N/A | 14.00 | 04/06/11 15:05 | 2.00 | 14.00 | |
| 05-SS-064-0204 | 04/04/11 16:35 | 04/05/11 08:30 | 04/06/11 00:00 | N/A | 14.00 | 04/06/11 15:29 | 2.00 | 14.00 | |
| 05-SS-063-0204 | 04/04/11 17:15 | 04/05/11 08:30 | 04/06/11 00:00 | N/A | 14.00 | 04/06/11 15:54 | 1.99 | 14.00 | |
| 05-SS-062-0204-D | 04/05/11 07:45 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 11:18 | 2.19 | 14.00 | |
| 05-SS-062-0204 | 04/05/11 07:45 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 11:43 | 2.21 | 14.00 | |
| 05-SS-061-0204 | 04/05/11 08:50 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 12:08 | 2.18 | 14.00 | |
| TRIPBLANK #9487 | 04/05/11 00:00 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 19:10 | 2.84 | 14.00 | |
| 05-SS-060-0204 | 04/05/11 09:35 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 12:33 | 2.17 | 14.00 | |
| 05-SS-059-0204 | 04/05/11 10:10 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 12:59 | 2.16 | 14.00 | |
| 05-SS-058-0204 | 04/05/11 10:45 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 13:24 | 2.15 | 14.00 | |
| 05-SS-057-0204 | 04/05/11 12:55 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 13:49 | 2.08 | 14.00 | |
| 05-SS-056-0204 | 04/05/11 13:30 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 14:15 | 2.07 | 14.00 | |
| 05-SS-055-0204 | 04/05/11 14:25 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 14:41 | 2.05 | 14.00 | |
| EQUIP BLANK 03 | 04/05/11 15:00 | 04/06/11 08:30 | 04/07/11 00:00 | N/A | 14.00 | 04/07/11 19:40 | 2.24 | 14.00 | |

# HOLDING TIME SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-065-0204 | 04/04/11 16:00 | 04/05/11 08:30 | 04/08/11 11:20 | 3.85 | 14.00 | 04/12/11 16:13 | 4.20 | 40.00 | |
| 05-SS-064-0204 | 04/04/11 16:35 | 04/05/11 08:30 | 04/08/11 11:20 | 3.82 | 14.00 | 04/12/11 16:41 | 4.22 | 40.00 | |
| 05-SS-063-0204 | 04/04/11 17:15 | 04/05/11 08:30 | 04/08/11 11:20 | 3.80 | 14.00 | 04/12/11 17:09 | 4.24 | 40.00 | |
| 05-SS-062-0204-D | 04/05/11 07:45 | 04/06/11 08:30 | 04/08/11 11:20 | 3.19 | 14.00 | 04/12/11 17:38 | 4.26 | 40.00 | |
| 05-SS-062-0204 | 04/05/11 07:45 | 04/06/11 08:30 | 04/08/11 11:20 | 3.19 | 14.00 | 04/12/11 18:06 | 4.28 | 40.00 | |
| 05-SS-061-0204 | 04/05/11 08:50 | 04/06/11 08:30 | 04/08/11 11:20 | 3.15 | 14.00 | 04/12/11 18:34 | 4.30 | 40.00 | |
| 05-SS-060-0204 | 04/05/11 09:35 | 04/06/11 08:30 | 04/08/11 11:20 | 3.11 | 14.00 | 04/12/11 23:35 | 4.51 | 40.00 | |
| 05-SS-059-0204 | 04/05/11 10:10 | 04/06/11 08:30 | 04/08/11 11:20 | 3.09 | 14.00 | 04/13/11 00:03 | 4.53 | 40.00 | |
| 05-SS-058-0204 | 04/05/11 10:45 | 04/06/11 08:30 | 04/08/11 11:20 | 3.07 | 14.00 | 04/13/11 00:30 | 4.55 | 40.00 | |
| 05-SS-057-0204 | 04/05/11 12:55 | 04/06/11 08:30 | 04/08/11 11:20 | 2.98 | 14.00 | 04/13/11 00:58 | 4.57 | 40.00 | |
| 05-SS-056-0204 | 04/05/11 13:30 | 04/06/11 08:30 | 04/08/11 11:20 | 2.95 | 14.00 | 04/13/11 01:26 | 4.59 | 40.00 | |
| 05-SS-055-0204 | 04/05/11 14:25 | 04/06/11 08:30 | 04/08/11 11:20 | 2.91 | 14.00 | 04/13/11 01:53 | 4.61 | 40.00 | |
| EQUIP BLANK 03 | 04/05/11 15:00 | 04/06/11 08:30 | 04/11/11 13:56 | 6.00 | 7.00 | 04/14/11 20:13 | 3.26 | 40.00 | |

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-065-0204 | 04/04/11 16:00 | 04/05/11 08:30 | 04/08/11 20:01 | 4.21 | 14.00 | 04/11/11 03:24 | 2.31 | 40.00 | |
| 05-SS-064-0204 | 04/04/11 16:35 | 04/05/11 08:30 | 04/08/11 20:01 | 4.18 | 14.00 | 04/11/11 04:06 | 2.34 | 40.00 | |
| 05-SS-063-0204 | 04/04/11 17:15 | 04/05/11 08:30 | 04/08/11 20:01 | 4.16 | 14.00 | 04/11/11 04:49 | 2.37 | 40.00 | |
| 05-SS-062-0204-D | 04/05/11 07:45 | 04/06/11 08:30 | 04/18/11 08:20 | 13.07 | 14.00 | 04/19/11 12:01 | 1.15 | 40.00 | |
| 05-SS-062-0204 | 04/05/11 07:45 | 04/06/11 08:30 | 04/18/11 08:20 | 13.07 | 14.00 | 04/19/11 12:44 | 1.18 | 40.00 | |
| 05-SS-061-0204 | 04/05/11 08:50 | 04/06/11 08:30 | 04/18/11 08:20 | 13.02 | 14.00 | 04/19/11 13:26 | 1.21 | 40.00 | |
| 05-SS-060-0204 | 04/05/11 09:35 | 04/06/11 08:30 | 04/18/11 08:20 | 12.99 | 14.00 | 04/19/11 15:34 | 1.30 | 40.00 | |
| 05-SS-059-0204 | 04/05/11 10:10 | 04/06/11 08:30 | 04/18/11 08:20 | 12.97 | 14.00 | 04/19/11 16:17 | 1.33 | 40.00 | |
| 05-SS-058-0204 | 04/05/11 10:45 | 04/06/11 08:30 | 04/18/11 08:20 | 12.94 | 14.00 | 04/19/11 17:00 | 1.36 | 40.00 | |
| 05-SS-057-0204 | 04/05/11 12:55 | 04/06/11 08:30 | 04/18/11 08:20 | 12.85 | 14.00 | 04/19/11 17:42 | 1.39 | 40.00 | |
| 05-SS-056-0204 | 04/05/11 13:30 | 04/06/11 08:30 | 04/18/11 08:20 | 12.83 | 14.00 | 04/19/11 18:25 | 1.42 | 40.00 | |
| 05-SS-055-0204 | 04/05/11 14:25 | 04/06/11 08:30 | 04/18/11 08:20 | 12.79 | 14.00 | 04/19/11 19:07 | 1.45 | 40.00 | |
| EQUIP BLANK 03 | 04/05/11 15:00 | 04/06/11 08:30 | 04/11/11 13:56 | 6.00 | 7.00 | 04/14/11 04:55 | 2.62 | 40.00 | |

# HOLDING TIME SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| EQUIP BLANK 03 | 04/05/11 15:00 | 04/06/11 08:30 | 04/11/11 13:00 | N/A | 14.00 | 04/13/11 12:28 | 7.94 | 14.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C07710 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C07710-TUN1 | 0307TU1.D | 03/07/11 12:22 |
| Cal Standard | 1C07710-CAL1 | 0307CAL1.D | 03/07/11 12:53 |
| Cal Standard | 1C07710-CAL2 | 0307CAL2.D | 03/07/11 13:23 |
| Cal Standard | 1C07710-CAL3 | 0307CAL3.D | 03/07/11 13:53 |
| Cal Standard | 1C07710-CAL4 | 0307CAL4.D | 03/07/11 14:23 |
| Cal Standard | 1C07710-CAL5 | 0307CAL5.D | 03/07/11 14:54 |
| Cal Standard | 1C07710-CAL6 | 0307CAL6.D | 03/07/11 15:24 |
| Cal Standard | 1C07710-CAL7 | 0307CAL7.D | 03/07/11 15:54 |
| Cal Standard | 1C07710-CAL8 | 0307CAL8.D | 03/07/11 16:24 |
| Cal Standard | 1C07710-CAL9 | 0307CAL9.D | 03/07/11 16:54 |
| Initial Cal Check | 1C07710-ICV1 | 0307ICV1.D | 03/07/11 17:25 |
| Initial Cal Check | 1C07710-ICV2 | 0307ICV2.D | 03/07/11 17:55 |
| MS Tune | 1C07710-TUN2 | 0317TU2.D | 03/17/11 18:43 |
| Cal Standard | 1C07710-CALB | 0317CAL2.D | 03/17/11 19:13 |
| Cal Standard | 1C07710-CALC | 0317CAL3.D | 03/17/11 20:14 |
| Cal Standard | 1C07710-CALD | 0317CAL4.D | 03/17/11 20:44 |
| Cal Standard | 1C07710-CALE | 0317CAL5.D | 03/17/11 21:14 |
| Cal Standard | 1C07710-CALF | 0317CAL6.D | 03/17/11 21:44 |
| Cal Standard | 1C07710-CALG | 0317CAL7.D | 03/17/11 22:14 |
| Cal Standard | 1C07710-CALH | 0317CAL8.D | 03/17/11 22:44 |
| Cal Standard | 1C07710-CALI | 0317CAL9.D | 03/17/11 23:15 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0307TU1.D | Injection Date: | 03/07/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 12:22 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 29.7 | PASS |
| 75 | 30 - 60% of 95 | 59.7 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.36 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 73.4 | PASS |
| 175 | 5 - 9% of 174 | 8.34 | PASS |
| 176 | 95 - 101% of 174 | 99.3 | PASS |
| 177 | 5 - 9% of 176 | 6.54 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TU2.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 18:43 |
| Sequence: | 1C07710 | Lab Sample ID: | 1C07710-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.7 | PASS |
| 75 | 30 - 60% of 95 | 50.9 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.95 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 97.6 | PASS |
| 175 | 5 - 9% of 174 | 8.17 | PASS |
| 176 | 95 - 101% of 174 | 96.9 | PASS |
| 177 | 5 - 9% of 176 | 5.26 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.1125867 | 7.775212 | 6.244286 | 0.1071381 | | | 15 | |
| Acrolein | 4.283427E-02 | 12.92662 | 6.061 | 9.119184E-02 | | | 15 | |
| Acrylonitrile | 7.491512E-02 | 13.92187 | 7.023556 | 3.951867E-02 | | | 15 | |
| Benzene | 0.7397262 | 7.773478 | 12.87444 | 3.353187E-02 | | | 15 | |
| Bromobenzene | 0.5955634 | 7.196348 | 17.832 | 2.354569E-02 | | | 15 | |
| Bromochloromethane | 0.1240907 | 7.549579 | 10.87744 | 7.156777E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7406833 | 20.99942 | 13.17687 | 5.183132E-02 | 0.9999422 | | 0.995 | |
| Bromodichloromethane | 0.393441 | 7.099255 | 13.80056 | 3.837247E-02 | | | 15 | |
| Bromoform | 0.3892677 | 8.488098 | 17.10711 | 1.904145E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2262604 | 13.09668 | 5.114 | 0.1004568 | | | 15 | |
| Bromofluorobenzene | 0.864999 | 4.547677 | 17.648 | 1.998807E-02 | | | 15 | |
| n-Butylbenzene | 1.378201 | 11.49175 | 19.04511 | 1.294924E-02 | | | 15 | |
| 2-Butanone | 0.1018668 | 27.92435 | 10.211 | 0.2192854 | 0.9987152 | | 0.995 | |
| sec-Butylbenzene | 1.844833 | 8.220999 | 18.57544 | 1.160729E-02 | | | 15 | |
| tert-Butylbenzene | 1.620182 | 6.67833 | 18.70456 | 1.990774E-02 | | | 15 | |
| Carbon disulfide | 0.6346432 | 9.888999 | 7.626889 | 8.141692E-02 | | | 15 | |
| Carbon tetrachloride | 0.3803403 | 6.452072 | 12.83711 | 3.700651E-02 | | | 15 | |
| Chlorobenzene | 1.095895 | 8.347511 | 16.69756 | 2.251491E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.1608279 | 8.222484 | 5.294667 | 9.353293E-02 | | | 15 | |
| Chloroform | 0.5084763 | 6.591338 | 10.98578 | 4.276434E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1134227 | 26.69582 | 14.347 | 3.374881E-02 | 0.9997447 | | 0.995 | |
| Chloromethane | 0.2980831 | 6.289672 | 4.365 | 0.188516 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.006089 | 7.388747 | 16.64067 | 2.133492E-02 | | | 15 | |
| 2-Chlorotoluene | 1.523137 | 5.306558 | 18.04867 | 2.098941E-02 | | | 15 | |
| 4-Chlorotoluene | 1.587775 | 9.227864 | 18.10889 | 1.213713E-02 | | | 15 | |
| Cyclohexane | 0.2775874 | 17.23492 | 12.74089 | 2.177786E-02 | 0.9997448 | | 0.995 | |
| Dibromochloromethane | 0.5274875 | 8.943849 | 15.70911 | 2.530325E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1119632 | 25.2941 | 19.43156 | 3.067344E-02 | 0.9986619 | | 0.995 | |
| 1,2-Dibromoethane (EDB) | 0.4534325 | 6.873208 | 15.93667 | 2.316429E-02 | | | 15 | |
| Dibromomethane | 0.1896182 | 11.46889 | 13.63856 | 2.978158E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 0.9705237 | 8.407707 | 19.03511 | 2.694366E-03 | | | 15 | |
| 1,3-Dichlorobenzene | 1.080832 | 6.190879 | 18.67178 | 1.189958E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1078001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 3/7/11 12:53 3/17/11 23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.153474 | 6.60659 | 18.72089 | 8.928354E-03 | | | 15 | |
| Dichlorodifluoromethane | 0.312813 | 10.72439 | 4.119 | 9.264489E-02 | | | 15 | |
| 1,1-Dichloroethane | 0.4332253 | 8.462878 | 9.104889 | 6.797151E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.4958155 | 6.096188 | 12.131 | 3.325407E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.1779832 | 11.23937 | 6.967667 | 0.1020339 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2226177 | 11.77531 | 10.56189 | 0.0539483 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2077027 | 10.73761 | 8.525556 | 6.283411E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2151602 | 10.90176 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2138675 | 12.72516 | 13.69356 | 2.877113E-02 | 0.9994699 | | CCC (20) | |
| 1,3-Dichloropropane | 0.7045052 | 7.35678 | 15.46267 | 3.084139E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.387605 | 6.483752 | 11.15322 | 4.720791E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.3169346 | 12.22384 | 12.60622 | 4.157777E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3942719 | 12.15062 | 14.59088 | 1.900144E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.6325373 | 15.33703 | 15.05978 | 2.420188E-02 | 0.996921 | | 0.995 | |
| Diisopropyl Ether | 0.7397891 | 20.08696 | 10.34763 | 4.918967E-02 | 0.9988929 | | 0.995 | |
| 2 Ethylbenzene | 1.744482 | 8.836318 | 16.84989 | 7.809333E-03 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.6852749 | 17.62275 | 11.194 | 5.283168E-02 | 0.9997283 | | 0.995 | |
| Ethyl Methacrylate | 0.4920032 | 19.18719 | 15.50875 | 1.084665E-02 | 0.9984347 | | 0.995 | |
| Hexachlorobutadiene | 0.3208413 | 8.710181 | 21.0895 | 1.924166E-02 | | | 15 | |
| 2-Hexanone | 0.28784 | 36.32521 | 15.62175 | 0.0320628 | 0.9989233 | | 0.995 | |
| Iodomethane | 0.3171042 | 26.94596 | 7.022444 | 9.520778E-02 | 0.9998641 | | 0.995 | |
| Isopropylbenzene | 1.42457 | 9.248017 | 17.611 | 1.726366E-02 | | | 15 | |
| p-Isopropyltoluene | 1.23658 | 14.38435 | 18.40356 | 2.441437E-02 | | | 15 | |
| Methylene chloride | 0.2446354 | 7.987041 | 7.210778 | 6.620158E-02 | | | 15 | |
| Methyl Acetate | 0.2084104 | 8.369294 | 7.26575 | 5.467954E-02 | | | 15 | |
| Methylcyclohexane | 0.2523952 | 13.64479 | 14.39522 | 2.265609E-02 | | | 15 | |
| Naphthalene | 1.191261 | 23.06464 | 21.05987 | 0.0200552 | 0.9993743 | | 0.995 | |
| Methyl Methacrylate | 0.2187958 | 26.61596 | 14.03787 | 3.704044E-02 | 0.9996399 | | 0.995 | |
| 4-Methyl-2-pentanone | 0.2291641 | 26.90628 | 14.72129 | 3.572917E-02 | 0.998877 | | 0.995 | |
| 3 Methyl t-Butyl Ether | 0.6052207 | 12.8349 | 8.8215 | 8.072976E-02 | | | 15 | |
| n-Propylbenzene | 2.237126 | 9.337395 | 17.95567 | 1.994119E-02 | | | 15 | |
| Styrene | 0.9900017 | 17.07341 | 17.26711 | 2.496185E-02 | 0.9965055 | | 0.995 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1078001 | | Instrument: | MS-VOA5 | |
| Matrix: | Water | | Calibration Dates: | 3/7/11_12:53 | 3/17/11_23:15 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6316098 | 10.04922 | 17.33711 | 2.899413E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.4599538 | 6.327214 | 16.63844 | 0.0277822 | | | 15 | |
| tert-Butyl alcohol | 2.388361E-02 | 13.61304 | 6.978556 | 0.1148859 | | | 15 | |
| Tetrachloroethene | 0.4471173 | 6.159571 | 16.11311 | 2.040489E-02 | | | 15 | |
| A Toluene | 0.898576 | 5.037505 | 15.40022 | 1.146996E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.5261452 | 14.88703 | 21.32 | 1.886098E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.5974773 | 14.98863 | 20.7705 | 1.201415E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.3365667 | 8.950328 | 15.214 | 1.611987E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.4251429 | 6.687853 | 12.30511 | 4.576472E-02 | | | 15 | |
| Tetrahydrofuran | 5.018338E-02 | 22.93539 | 11.61686 | 9.895117E-02 | 0.9967826 | | 0.995 | |
| Trichloroethene | 0.2427349 | 7.126407 | 13.76456 | 0.0129328 | | | 15 | |
| Trichlorofluoromethane | 0.4960262 | 4.904978 | 6.104889 | 0.1074519 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1614366 | 9.000469 | 17.44544 | 3.217736E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.570048 | 8.309352 | 18.16144 | 1.721281E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.587548 | 10.03676 | 18.48033 | 3.047003E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2442818 | 8.405401 | 7.325778 | 7.810021E-02 | | | 15 | |
| Vinyl chloride | 0.2947606 | 14.0323 | 4.588555 | 0.1334175 | 0.9995107 | | CCC (20) | |
| m,p-Xylene | 1.366232 | 11.79195 | 17.00411 | 0.0168046 | | | 15 | |
| o-Xylene | 1.476455 | 10.00571 | 17.32733 | 2.448285E-02 | | | 15 | |
| Vinyl acetate | 0.2765328 | 28.3144 | 9.427714 | 0.103809 | 0.9990022 | | 0.995 | |
| 5 Xylenes (total) | 1.402973 | 10.95705 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3744165 | 3.817796 | 11.19738 | 3.515222E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 6.425678E-02 | 3.823514 | 11.99925 | 2.523171E-02 | | | 15 | |
| Toluene-d8 | 1.791679 | 4.193785 | 15.32337 | 1.566914E-02 | | | 15 | |
| tert-Amyl alcohol | 1.211988E-02 | 27.37991 | 11.86886 | 4.178914E-02 | 0.9964038 | | 0.995 | |
| tert-Amyl ethyl ether | 0.5459039 | 17.64679 | 14.268 | 2.379276E-02 | 0.9999014 | | 0.995 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09704 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09704-TUN1 | 0406TU1.D | 04/06/11 07:44 |
| Calibration Check | 1D09704-CCV1 | 0406CC1.D | 04/06/11 08:14 |
| LCS | 1D06007-BS1 | 0406LS1.D | 04/06/11 08:45 |
| Blank | 1D06007-BLK1 | 0406BL1.D | 04/06/11 10:43 |
| TRIPBLANK 9491 | 1104026-01 | 0402601.D | 04/06/11 11:44 |
| LCS Dup | 1D06007-BSD1 | 0406LD1.D | 04/06/11 15:46 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0406TU1.D | Injection Date: | 04/06/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 07:44 |
| Sequence: | 1D09704 | Lab Sample ID: | 1D09704-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 28.7 | PASS |
| 75 | 30 - 60% of 95 | 56.7 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.32 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 77.6 | PASS |
| 175 | 5 - 9% of 174 | 8.04 | PASS |
| 176 | 95 - 101% of 174 | 96.3 | PASS |
| 177 | 5 - 9% of 176 | 6.9 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0406CC1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1D09704 | Injection Date: | 04/06/11 |
| Lab Sample ID: | 1D09704-CCV1 | Injection Time: | 08:14 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 108.6 | 0.7397262 | 0.8033077 | | 8.6 | 20 |
| Ethylbenzene | A | 100.0 | 105.9 | 1.744482 | 1.847535 | | 5.9 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 109.5 | 0.6052207 | 0.6629074 | | 9.5 | 20 |
| Toluene | A | 100.0 | 101.1 | 0.898576 | 0.9086021 | | 1.1 | 20 |
| Xylenes (total) | A | 300.0 | 317.1 | 1.402973 | 1.48269 | | 5.7 | 20 |
| Bromofluorobenzene | A | 30.00 | 29.46 | 0.864999 | 0.8494207 | | -1.8 | 20 |
| Dibromofluoromethane | A | 30.00 | 29.82 | 0.3744165 | 0.3725929 | | -0.5 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 29.57 | 6.425678E-02 | 6.333419E-02 | | -1.4 | 20 |
| Toluene-d8 | A | 30.00 | 27.09 | 1.791679 | 1.61805 | | -9.7 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06007 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| TRIPBLANK 9491 | 1104026-01 | 04/06/11 00:00 | 5.00 | 5.00 |
| Blank | 1D06007-BLK1 | 04/06/11 00:00 | 5.00 | 5.00 |
| LCS | 1D06007-BS1 | 04/06/11 00:00 | 5.00 | 5.00 |
| LCS Dup | 1D06007-BSD1 | 04/06/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D06007-BLK1 | File ID: | 0406BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/06/11 10:43 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1D06007 Sequence: 1D09704 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.16 | 104 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 32.74 | 109 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.63 | 102 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.26 | 101 | 85 - 120 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09804 | Instrument: | MS-VOA5 |
| Calibration: | 1078001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09804-TUN1 | 0407TU1.D | 04/07/11 14:09 |
| Calibration Check | 1D09804-CCV1 | 0407CC1.D | 04/07/11 14:39 |
| LCS | 1D07025-BS1 | 0407LS1.D | 04/07/11 15:10 |
| Blank | 1D07025-BLK1 | 0407BL1.D | 04/07/11 16:38 |
| TRIPBLANK #9487 | 1104050-04 | 0405004.D | 04/07/11 19:10 |
| EQUIP BLANK 03 | 1104050-11 | 0405011.D | 04/07/11 19:40 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0407TU1.D | Injection Date: | 04/07/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 14:09 |
| Sequence: | 1D09804 | Lab Sample ID: | 1D09804-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 29.8 | PASS |
| 75 | 30 - 60% of 95 | 58.9 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.56 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 63.3 | PASS |
| 175 | 5 - 9% of 174 | 7.49 | PASS |
| 176 | 95 - 101% of 174 | 97.3 | PASS |
| 177 | 5 - 9% of 176 | 7.2 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1078001 |
| Lab File ID: | 0407CC1.D | Calibration Date: | 03/07/11 12:53 |
| Sequence: | 1D09804 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09804-CCV1 | Injection Time: | 14:39 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 114.2 | 0.7397262 | 0.8444787 | | 14.2 | 20 |
| Ethylbenzene | A | 100.0 | 111.3 | 1.744482 | 1.942117 | | 11.3 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 115.2 | 0.6052207 | 0.6970389 | | 15.2 | 20 |
| Toluene | A | 100.0 | 108.2 | 0.898576 | 0.9720555 | | 8.2 | 20 |
| Xylenes (total) | A | 300.0 | 315.6 | 1.402973 | 1.476409 | | 5.2 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.44 | 0.864999 | 0.8198759 | | -5.2 | 20 |
| Dibromofluoromethane | A | 30.00 | 27.84 | 0.3744165 | 0.3479505 | | -7.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 29.77 | 6.425678E-02 | 6.375581E-02 | | -0.8 | 20 |
| Toluene-d8 | A | 30.00 | 27.84 | 1.791679 | 1.662476 | | -7.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D07025 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| TRIPBLANK #9487 | 1104050-04 | 04/07/11 00:00 | 5.00 | 5.00 |
| EQUIP BLANK 03 | 1104050-11 | 04/07/11 00:00 | 5.00 | 5.00 |
| Blank | 1D07025-BLK1 | 04/07/11 00:00 | 5.00 | 5.00 |
| LCS | 1D07025-BS1 | 04/07/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Matrix: Laboratory ID: 1D07025-BLK1 File ID: 0407BL1.D

Sampled: Prepared: Analyzed: 04/07/11 16:38

Solids: Preparation: 5030B Dilution:

Batch: 1D07025 Sequence: 1D09804 Calibration: 1078001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.94 | 103 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.38 | 105 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.49 | 105 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.32 | 101 | 85 - 120 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08024 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08024-TUN1 | 0208TUN1.D | 02/08/11 16:12 |
| Cal Standard | 1C08024-CAL1 | 0208CAL1.D | 02/08/11 16:35 |
| Cal Standard | 1C08024-CAL2 | 0208CAL2.D | 02/08/11 16:59 |
| Cal Standard | 1C08024-CAL3 | 0208CAL3.D | 02/08/11 17:23 |
| Cal Standard | 1C08024-CAL4 | 0208CAL4.D | 02/08/11 17:47 |
| Cal Standard | 1C08024-CAL5 | 0208CAL5.D | 02/08/11 18:11 |
| Cal Standard | 1C08024-CAL7 | 0208CAL7.D | 02/08/11 18:59 |
| Cal Standard | 1C08024-CAL8 | 0208CAL8.D | 02/08/11 19:23 |
| MS Tune | 1C08024-TUN2 | 0208TUN2.D | 02/09/11 06:45 |
| Cal Standard | 1C08024-CAL6 | 208CAL6A.D | 02/09/11 07:13 |
| Initial Cal Check | 1C08024-ICV1 | 208ICV1A.D | 02/09/11 07:37 |
| MS Tune | 1C08024-TUN3 | 0208TUN3.D | 02/09/11 15:56 |
| Cal Standard | 1C08024-CALH | SEQ-CALH.D | 02/09/11 16:20 |
| Cal Standard | 1C08024-CALI | SEQ-CALI.D | 02/09/11 16:45 |
| Cal Standard | 1C08024-CALJ | SEQ-CALJ.D | 02/09/11 17:09 |
| Cal Standard | 1C08024-CALK | SEQ-CALK.D | 02/09/11 17:33 |
| Cal Standard | 1C08024-CALL | SEQ-CALL.D | 02/09/11 17:56 |
| Cal Standard | 1C08024-CALM | SEQ-CALM.D | 02/09/11 18:20 |
| Cal Standard | 1C08024-CALN | SEQ-CALN.D | 02/09/11 18:44 |
| Cal Standard | 1C08024-CALO | SEQ-CALO.D | 02/09/11 19:08 |
| MS Tune | 1C08024-TUN4 | 0211TUN4.D | 02/11/11 14:35 |
| MS Tune | 1C08024-TUN5 | 0317TUN5.D | 03/17/11 09:51 |
| Cal Standard | 1C08024-CAL9 | 0317CAL1.D | 03/17/11 12:18 |
| Cal Standard | 1C08024-CALA | 0317CAL2.D | 03/17/11 12:43 |
| Cal Standard | 1C08024-CALB | 0317CAL3.D | 03/17/11 13:07 |
| Cal Standard | 1C08024-CALC | 0317CAL4.D | 03/17/11 13:32 |
| Cal Standard | 1C08024-CALD | 0317CAL5.D | 03/17/11 13:57 |
| Cal Standard | 1C08024-CALE | 0317CAL6.D | 03/17/11 14:21 |
| Cal Standard | 1C08024-CALF | 0317CAL7.D | 03/17/11 14:46 |
| Cal Standard | 1C08024-CALG | 0317CAL8.D | 03/17/11 15:11 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN1.D | Injection Date: | 02/08/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 16:12 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 21.5 | PASS |
| 75 | 30 - 60% of 95 | 39.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.17 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 84.4 | PASS |
| 175 | 5 - 9% of 174 | 7.21 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN2.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 06:45 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 23.4 | PASS |
| 75 | 30 - 60% of 95 | 41.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.69 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 82.1 | PASS |
| 175 | 5 - 9% of 174 | 7.04 | PASS |
| 176 | 95 - 101% of 174 | 95 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN3.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 15:56 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN3 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.4 | PASS |
| 75 | 30 - 60% of 95 | 43.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.71 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 63.8 | PASS |
| 175 | 5 - 9% of 174 | 7.5 | PASS |
| 176 | 95 - 101% of 174 | 97.4 | PASS |
| 177 | 5 - 9% of 176 | 6.46 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0211TUN4.D | Injection Date: | 02/11/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 14:35 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN4 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.3 | PASS |
| 75 | 30 - 60% of 95 | 40 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.39 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 86.4 | PASS |
| 175 | 5 - 9% of 174 | 6.88 | PASS |
| 176 | 95 - 101% of 174 | 95.8 | PASS |
| 177 | 5 - 9% of 176 | 6.12 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TUN5.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 09:51 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN5 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.1 | PASS |
| 75 | 30 - 60% of 95 | 46.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.79 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 69.4 | PASS |
| 175 | 5 - 9% of 174 | 7.65 | PASS |
| 176 | 95 - 101% of 174 | 95.3 | PASS |
| 177 | 5 - 9% of 176 | 6.71 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 | | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | | |
| Calibration: | 1081001 | Instrument: | MS-VOA6 | | |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 | 3/17/11 15:11 | |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 9.260554E-02 | 28.00847 | 3.792143 | 0.2505724 | | 0.9930411 | 0.99 | |
| Acrolein | 3.068373E-02 | 14.17936 | 3.687375 | 0.266829 | | | 15 | |
| Acrylonitrile | 8.885261E-02 | 18.29246 | 4.637625 | 0.1611173 | 0.9961602 | | 0.995 | |
| Benzene | 1.113159 | 4.608946 | 7.67675 | 4.449891E-02 | | | 15 | |
| Bromobenzene | 0.7164301 | 3.444919 | 12.40125 | 2.882236E-02 | | | 15 | |
| Bromochloromethane | 0.1470133 | 2.818947 | 6.77675 | 6.962075E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7667359 | 3.84088 | 7.868625 | 0.0369654 | | | 15 | |
| Bromodichloromethane | 0.3261603 | 6.110637 | 8.6565 | 0.0395075 | | | 15 | |
| Bromoform | 0.3300278 | 14.56769 | 11.81133 | 3.114238E-02 | | | SPCC (0.1) | |
| Bromomethane | 9.416029E-02 | 13.49252 | 2.841429 | 0.3399494 | | | 15 | |
| Bromofluorobenzene | 0.7951301 | 2.708642 | 12.22875 | 0.0251581 | | | 15 | |
| n-Butylbenzene | 2.759967 | 3.753642 | 13.82862 | 1.990092E-02 | | | 15 | |
| 2-Butanone | 0.1620167 | 9.544266 | 6.227 | 6.194136E-02 | | | 15 | |
| sec-Butylbenzene | 3.285152 | 4.35073 | 13.29013 | 3.345705E-02 | | | 15 | |
| tert-Butylbenzene | 2.145432 | 3.707538 | 13.05663 | 2.013395E-02 | | | 15 | |
| Carbon disulfide | 0.7939658 | 17.02013 | 4.8035 | 0.1982975 | 0.9975385 | | 0.995 | |
| Carbon tetrachloride | 0.3144458 | 8.98804 | 7.644625 | 5.435293E-02 | | | 15 | |
| Chlorobenzene | 1.859646 | 6.752518 | 11.08463 | 2.703025E-02 | | | SPCC (0.3) | |
| Chloroethane | 8.354599E-02 | 6.438411 | 2.97925 | 0.3520969 | | | 15 | |
| Chloroform | 0.4852062 | 3.430147 | 6.7485 | 5.313365E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.17477 | 3.894887 | 9.0105 | 4.037457E-02 | | | 15 | |
| Chloromethane | 0.3749535 | 3.973692 | 2.239125 | 0.4681154 | | | SPCC (0.1) | |
| 1-Chlorohexane | 2.070736 | 5.11712 | 11.051 | 3.853776E-02 | | | 15 | |
| 2-Chlorotoluene | 2.109323 | 4.700997 | 12.6225 | 3.341376E-02 | | | 15 | |
| 4-Chlorotoluene | 2.329282 | 4.243641 | 12.68525 | 2.421974E-02 | | | 15 | |
| Cyclohexane | 0.685955 | 5.186082 | 7.5735 | 5.633159E-02 | | | 15 | |
| Dibromochloromethane | 0.5441809 | 14.16857 | 10.3225 | 3.125264E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1110578 | 4.56858 | 14.43113 | 0.0227997 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5250303 | 8.57485 | 10.53375 | 2.690444E-02 | | | 15 | |
| Dibromomethane | 0.172495 | 3.274856 | 8.595125 | 3.800596E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.192622 | 3.865282 | 13.789 | 1.366507E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.301676 | 2.74033 | 13.3795 | 3.011168E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.315839 | 3.393764 | 13.47213 | 2.224884E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.2743014 | 10.74781 | 2.016625 | 0.5619011 | | | 15 | |
| 1,1-Dichloroethane | 0.586753 | 4.750245 | 5.793375 | 7.525912E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.2934489 | 4.123627 | 7.505875 | 5.038248E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2034482 | 14.48541 | 4.277667 | 0.1728932 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3168749 | 2.657418 | 6.4965 | 8.574096E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.283059 | 5.687211 | 5.419625 | 8.226152E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2999669 | 3.809693 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.3682027 | 2.627754 | 8.4795 | 4.454179E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8250139 | 6.792829 | 10.06175 | 0.0225482 | | | 15 | |
| 2,2-Dichloropropane | 0.3408366 | 5.440234 | 6.602125 | 6.320189E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.386876 | 5.080917 | 7.524375 | 0.0579442 | | | 15 | |
| cis-1,3-Dichloropropene | 0.441167 | 3.859299 | 9.22575 | 3.273881E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7537714 | 6.572131 | 9.69775 | 2.998173E-02 | | | 15 | |
| Diisopropyl Ether | 1.648527 | 3.427531 | 6.164375 | 8.144213E-02 | | | 15 | |
| 2 Ethylbenzene | 3.20803 | 9.080474 | 11.2305 | 3.248409E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 1.014941 | 4.802987 | 6.624375 | 5.856448E-02 | | | 15 | |
| Ethyl Methacrylate | 0.8111924 | 7.03362 | 9.88475 | 3.023834E-02 | | | 15 | |
| Hexachlorobutadiene | 0.4736085 | 5.501745 | 15.78825 | 2.462656E-02 | | | 15 | |
| 2-Hexanone | 0.5814636 | 8.204247 | 9.98775 | 2.484454E-02 | | | 15 | |
| Iodomethane | 0.3021595 | 14.1237 | 4.468714 | 0.194976 | | | 15 | |
| Isopropylbenzene | 2.472317 | 8.225239 | 12.12925 | 2.846195E-02 | | | 15 | |
| p-Isopropyltoluene | 2.330942 | 4.564871 | 13.4265 | 0.02919 | | | 15 | |
| Methylene chloride | 0.3823591 | 43.34252 | 4.754375 | 0.1602236 | 0.9983757 | | 0.995 | |
| Methyl Acetate | 0.2345594 | 13.01771 | 4.628714 | 0.1631094 | | | 15 | |
| Methylcyclohexane | 0.5128412 | 4.32501 | 8.80775 | 0.0356778 | | | 15 | |
| Naphthalene | 1.602647 | 6.275391 | 15.66025 | 1.983775E-02 | | | 15 | |
| Methyl Methacrylate | 0.471708 | 2.883842 | 7.5735 | 5.633159E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.3518691 | 8.076643 | 9.140625 | 1.978248E-02 | | | 15 | |
| 3 Methyl t-Butyl Ether | 0.6002451 | 4.891206 | 5.423375 | 0.1227064 | | | 15 | |
| n-Propylbenzene | 3.803681 | 4.930978 | 12.5375 | 2.980661E-02 | | | 15 | |
| Styrene | 1.92732 | 6.721793 | 11.704 | 2.493567E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6908364 | 4.258784 | 12.05575 | 3.119017E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6333042 | 8.281663 | 11.1275 | 3.464365E-02 | | | 15 | |
| tert-Butyl alcohol | 2.671035E-02 | 9.966665 | 4.427375 | 0.2216083 | | | 15 | |
| Tetrachloroethene | 0.6244481 | 8.506563 | 10.43312 | 3.100488E-02 | | | 15 | |
| Toluene | 1.598242 | 4.627079 | 9.70025 | 4.291451E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.7016011 | 4.889794 | 15.94525 | 2.154844E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.7933826 | 3.727781 | 15.508 | 1.845566E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.468124 | 6.206816 | 9.8525 | 3.322686E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3447116 | 5.271122 | 7.3065 | 4.409785E-02 | | | 15 | |
| Tetrahydrofuran | 0.125175 | 32.67256 | 6.962375 | 9.085995E-02 | 0.9977438 | | 0.995 | |
| Trichloroethene | 0.308656 | 4.617016 | 8.43125 | 5.007405E-02 | | | 15 | |
| Trichlorofluoromethane | 0.4287223 | 6.644425 | 3.48675 | 0.268437 | | | 15 | |
| 1,2,3-Trichloropropane | 0.141114 | 8.142237 | 12.1785 | 2.715286E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.27177 | 3.75346 | 12.7145 | 2.609472E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 2.273427 | 4.81283 | 13.08825 | 1.976355E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2574515 | 8.290995 | 4.35 | 0.1908188 | | | 15 | |
| Vinyl chloride | 0.1888258 | 14.37893 | 2.38775 | 0.3384152 | | | CCC (20) | |
| m,p-Xylene | 2.321142 | 4.033096 | 11.34387 | 3.895987E-02 | | | 15 | |
| o-Xylene | 2.395421 | 7.925602 | 11.73375 | 4.033886E-02 | | | 15 | |
| Vinyl acetate | 0.44353 | 3.427564 | 5.86575 | 0.0758661 | | | 15 | |
| Xylenes (total) | 2.345902 | 4.444014 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.2924952 | 1.275439 | 6.909375 | 4.408995E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 5.404713E-02 | 3.185261 | 7.40225 | 6.524669E-02 | | | 15 | |
| Toluene-d8 | 2.103453 | 1.736151 | 9.61275 | 2.403928E-02 | | | 15 | |
| tert-Amyl alcohol | 2.611649E-02 | 4.492563 | 7.122 | 5.407818E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.8849963 | 4.245319 | 8.745 | 4.184207E-02 | | | 15 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09701 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09701-TUN1 | 0406TUN1.D | 04/06/11 07:24 |
| Calibration Check | 1D09701-CCV1 | 0406CCV1.D | 04/06/11 07:49 |
| LCS | 1D06003-BS1 | 0406LS1.D | 04/06/11 08:23 |
| Blank | 1D06003-BLK1 | 0406BL1.D | 04/06/11 09:46 |
| 05-SS-065-0204 | 1104026-02 | 0402602.D | 04/06/11 15:05 |
| 05-SS-064-0204 | 1104026-03 | 0402603.D | 04/06/11 15:29 |
| 05-SS-063-0204 | 1104026-04 | 0402604.D | 04/06/11 15:54 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0406TUN1.D | Injection Date: | 04/06/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 07:24 |
| Sequence: | 1D09701 | Lab Sample ID: | 1D09701-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 29.1 | PASS |
| 75 | 30 - 60% of 95 | 47.8 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.89 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 54.7 | PASS |
| 175 | 5 - 9% of 174 | 7.63 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 7.33 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0406CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D09701 | Injection Date: | 04/06/11 |
| Lab Sample ID: | 1D09701-CCV1 | Injection Time: | 07:49 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 88.37 | 1.113159 | 0.9837086 | | -11.6 | 20 |
| Ethylbenzene | A | 100.0 | 105.4 | 3.20803 | 3.382847 | | 5.4 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 94.62 | 0.6002451 | 0.5679575 | | -5.4 | 20 |
| Toluene | A | 100.0 | 100.1 | 1.598242 | 1.600526 | | 0.1 | 20 |
| Xylenes (total) | A | 300.0 | 314.2 | 2.345902 | 2.45742 | | 4.8 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.50 | 0.7951301 | 0.9145318 | | 15.0 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.48 | 0.2924952 | 0.3069129 | | 4.9 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 29.55 | 5.404713E-02 | 5.323339E-02 | | -1.5 | 20 |
| Toluene-d8 | A | 30.00 | 34.23 | 2.103453 | 2.399816 | | 14.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D06003 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-065-0204 | 1104026-02 | 04/06/11 00:00 | 4.42 | 5.00 |
| 05-SS-064-0204 | 1104026-03 | 04/06/11 00:00 | 4.62 | 5.00 |
| 05-SS-063-0204 | 1104026-04 | 04/06/11 00:00 | 6.62 | 5.00 |
| Blank | 1D06003-BLK1 | 04/06/11 00:00 | 5.00 | 5.00 |
| LCS | 1D06003-BS1 | 04/06/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D06003-BLK1 | File ID: | 0406BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/06/11 09:46 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D06003 Sequence: 1D09701 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg wet) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03099 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03109 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03225 | 108 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03029 | 101 | 85 - 115 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D09801 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09801-TUN1 | 0407TUN1.D | 04/07/11 07:35 |
| Calibration Check | 1D09801-CCV1 | 0407CCV1.D | 04/07/11 08:41 |
| LCS | 1D07008-BS1 | 0407LS1.D | 04/07/11 09:15 |
| Blank | 1D07008-BLK1 | 0407BL1.D | 04/07/11 10:29 |
| 05-SS-062-0204-D | 1104050-01 | 0405001.D | 04/07/11 11:18 |
| 05-SS-062-0204 | 1104050-02 | 0405002.D | 04/07/11 11:43 |
| 05-SS-061-0204 | 1104050-03 | 0405003.D | 04/07/11 12:08 |
| 05-SS-060-0204 | 1104050-05 | 0405005.D | 04/07/11 12:33 |
| 05-SS-059-0204 | 1104050-06 | 0405006.D | 04/07/11 12:59 |
| 05-SS-058-0204 | 1104050-07 | 0405007.D | 04/07/11 13:24 |
| 05-SS-057-0204 | 1104050-08 | 0405008.D | 04/07/11 13:49 |
| 05-SS-056-0204 | 1104050-09 | 0405009.D | 04/07/11 14:15 |
| 05-SS-055-0204 | 1104050-10 | 0405010.D | 04/07/11 14:41 |
| 05-SS-061-0204 | 1D07008-MS1 | 0405003M.D | 04/07/11 19:21 |
| 05-SS-061-0204 | 1D07008-MSD1 | 0405003S.D | 04/07/11 19:46 ← exceeds 12hr |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0407TUN1.D | Injection Date: | 04/07/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 07:35 |
| Sequence: | 1D09801 | Lab Sample ID: | 1D09801-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 27.9 | PASS |
| 75 | 30 - 60% of 95 | 47.7 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.95 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 66.9 | PASS |
| 175 | 5 - 9% of 174 | 7.72 | PASS |
| 176 | 95 - 101% of 174 | 95.3 | PASS |
| 177 | 5 - 9% of 176 | 6.72 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0407CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D09801 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09801-CCV1 | Injection Time: | 08:41 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 88.00 | 1.113159 | 0.979623 | | -12.0 | 20 |
| Ethylbenzene | A | 100.0 | 105.6 | 3.20803 | 3.387838 | | 5.6 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 95.85 | 0.6002451 | 0.5753268 | | -4.2 | 20 |
| Toluene | A | 100.0 | 100.2 | 1.598242 | 1.601368 | | 0.2 | 20 |
| Xylenes (total) | A | 300.0 | 317.1 | 2.345902 | 2.480047 | | 5.7 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.32 | 0.7951301 | 0.9097243 | | 14.4 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.23 | 0.2924952 | 0.3044583 | | 4.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.48 | 5.404713E-02 | 5.492084E-02 | | 1.6 | 20 |
| Toluene-d8 | A | 30.00 | 33.94 | 2.103453 | 2.379986 | | 13.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D07008 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-062-0204-D | 1104050-01 | 04/07/11 00:00 | 5.41 | 5.00 |
| 05-SS-062-0204 | 1104050-02 | 04/07/11 00:00 | 5.62 | 5.00 |
| 05-SS-061-0204 | 1104050-03 | 04/07/11 00:00 | 4.92 | 5.00 |
| 05-SS-060-0204 | 1104050-05 | 04/07/11 00:00 | 4.81 | 5.00 |
| 05-SS-059-0204 | 1104050-06 | 04/07/11 00:00 | 4.93 | 5.00 |
| 05-SS-058-0204 | 1104050-07 | 04/07/11 00:00 | 4.64 | 5.00 |
| 05-SS-057-0204 | 1104050-08 | 04/07/11 00:00 | 4.77 | 5.00 |
| 05-SS-056-0204 | 1104050-09 | 04/07/11 00:00 | 4.62 | 5.00 |
| 05-SS-055-0204 | 1104050-10 | 04/07/11 00:00 | 4.58 | 5.00 |
| Blank | 1D07008-BLK1 | 04/07/11 00:00 | 5.00 | 5.00 |
| LCS | 1D07008-BS1 | 04/07/11 00:00 | 5.00 | 5.00 |
| 05-SS-061-0204 | 1D07008-MS1 | 04/07/11 00:00 | 5.87 | 5.00 |
| 05-SS-061-0204 | 1D07008-MSD1 | 04/07/11 00:00 | 5.10 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D07008-BLK1 | File ID: | 0407BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/07/11 10:29 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D07008 Sequence: 1D09801 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg wt | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03030 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03074 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.02889 | 96.3 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03082 | 103 | 85 - 115 | |

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C06115 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C06115-TUN1 | SEQ-TUN1.D | 02/28/11 19:40 |
| Cal Standard | 1C06115-CAL1 | SEQ-CAL1.D | 02/28/11 19:58 |
| Cal Standard | 1C06115-CAL2 | SEQ-CAL2.D | 02/28/11 20:24 |
| Cal Standard | 1C06115-CAL3 | SEQ-CAL3.D | 02/28/11 20:50 |
| Cal Standard | 1C06115-CAL4 | SEQ-CAL4.D | 02/28/11 21:16 |
| Cal Standard | 1C06115-CAL5 | SEQ-CAL5.D | 02/28/11 21:42 |
| Cal Standard | 1C06115-CAL6 | SEQ-CAL6.D | 02/28/11 22:08 |
| Cal Standard | 1C06115-CAL7 | SEQ-CAL7.D | 02/28/11 22:35 |
| Cal Standard | 1C06115-CAL8 | SEQ-CAL8.D | 02/28/11 23:01 |
| MS Tune | 1C06115-TUN2 | SEQ-TUN1.D | 03/01/11 12:01 |
| Initial Cal Check | 1C06115-ICV1 | SEQ-ICV1.D | 03/01/11 12:19 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/01/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:01 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.55 | PASS |
| 69 | Less than 200% of 198 | 50.4 | PASS |
| 70 | Less than 2% of 69 | 0.486 | PASS |
| 127 | 40 - 60% of 198 | 56.1 | PASS |
| 197 | Less than 1% of 198 | 1 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.03 | PASS |
| 275 | 10 - 30% of 198 | 25.6 | PASS |
| 365 | 1 - 200% of 198 | 3.45 | PASS |
| 441 | 0.001 - 100% of 443 | 82.1 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 02/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 19:40 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 54 | PASS |
| 68 | Less than 2% of 69 | 1.39 | PASS |
| 69 | Less than 200% of 198 | 52.7 | PASS |
| 70 | Less than 2% of 69 | 0.407 | PASS |
| 127 | 40 - 60% of 198 | 57.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 25.3 | PASS |
| 365 | 1 - 200% of 198 | 3.37 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 20.3 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10409 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10409-TUN1 | SEQ-TUN1.D | 04/12/11 10:41 |
| Calibration Check | 1D10409-CCV1 | SEQ-CCV1.D | 04/12/11 11:02 |
| LCS | 1D07009-BS1 | D07009L1.D | 04/12/11 11:30 |
| Blank | 1D07009-BLK1 | D07009B1.D | 04/12/11 11:59 |
| 05-SS-065-0204 | 1104026-02 | 0402602.D | 04/12/11 16:13 |
| 05-SS-064-0204 | 1104026-03 | 0402603.D | 04/12/11 16:41 |
| 05-SS-063-0204 | 1104026-04 | 0402604.D | 04/12/11 17:09 |
| 05-SS-062-0204-D | 1104050-01 | 0405001.D | 04/12/11 17:38 |
| 05-SS-062-0204 | 1104050-02 | 0405002.D | 04/12/11 18:06 |
| 05-SS-061-0204 | 1104050-03 | 0405003.D | 04/12/11 18:34 |
| 05-SS-061-0204 | 1D07009-MS1 | 0405003M.D | 04/12/11 19:02 |
| 05-SS-061-0204 | 1D07009-MSD1 | 0405003S.D | 04/12/11 19:30 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/12/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 10:41 |
| Sequence: | 1D10409 | Lab Sample ID: | 1D10409-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 50.8 | PASS |
| 68 | Less than 2% of 69 | 1.61 | PASS |
| 69 | Less than 200% of 198 | 49.4 | PASS |
| 70 | Less than 2% of 69 | 0.478 | PASS |
| 127 | 40 - 60% of 198 | 54.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.67 | PASS |
| 275 | 10 - 30% of 198 | 28 | PASS |
| 365 | 1 - 200% of 198 | 4.28 | PASS |
| 441 | 0.001 - 100% of 443 | 83.4 | PASS |
| 442 | 40 - 200% of 198 | 158 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10409 | Injection Date: | 04/12/11 |
| Lab Sample ID: | 1D10409-CCV1 | Injection Time: | 11:02 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.867 | 0.8277096 | 0.8056366 | | -2.7 | 20 |
| Acenaphthylene | A | 5.000 | 4.938 | 1.235702 | 1.220375 | | -1.2 | 20 |
| Anthracene | A | 5.000 | 5.032 | 1.13295 | 1.140116 | | 0.6 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.350 | 0.8691476 | 0.7949709 | | -13.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.088 | 1.056815 | 1.075335 | | 1.8 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.013 | 1.338014 | 1.341406 | | 0.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.724 | 0.9482109 | 0.8958028 | | -5.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.236 | 1.2951 | 1.356348 | | 4.7 | 20 |
| Chrysene | A | 5.000 | 4.490 | 0.8791148 | 0.7894523 | | -10.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.047 | 0.8237431 | 0.8314567 | | 0.9 | 20 |
| Fluoranthene | A | 5.000 | 4.644 | 1.197097 | 1.111838 | | -7.1 | 20 |
| Fluorene | A | 5.000 | 5.165 | 0.7884623 | 0.8144288 | | 3.3 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.935 | 1.067942 | 1.054136 | | -1.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.610 | 0.8735331 | 0.8053416 | | -7.8 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.721 | 0.8753044 | 0.8264418 | | -5.6 | 20 |
| Naphthalene | A | 5.000 | 4.474 | 1.363682 | 1.220203 | | -10.5 | 20 |
| Phenanthrene | A | 5.000 | 4.756 | 1.17432 | 1.117082 | | -4.9 | 20 |
| Pyrene | A | 5.000 | 4.694 | 1.206692 | 1.132798 | | -6.1 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.650 | 0.8894126 | 0.827086 | | -7.0 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.820 | 0.7416898 | 0.7150458 | | -3.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D07009 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-065-0204 | 1104026-02 | 04/08/11 11:20 | 15.10 | 1.00 |
| 05-SS-064-0204 | 1104026-03 | 04/08/11 11:20 | 15.10 | 1.00 |
| 05-SS-063-0204 | 1104026-04 | 04/08/11 11:20 | 15.40 | 1.00 |
| 05-SS-062-0204-D | 1104050-01 | 04/08/11 11:20 | 15.60 | 1.00 |
| 05-SS-062-0204 | 1104050-02 | 04/08/11 11:20 | 15.60 | 1.00 |
| 05-SS-061-0204 | 1104050-03 | 04/08/11 11:20 | 15.80 | 1.00 |
| 05-SS-060-0204 | 1104050-05 | 04/08/11 11:20 | 15.80 | 1.00 |
| 05-SS-059-0204 | 1104050-06 | 04/08/11 11:20 | 15.10 | 1.00 |
| 05-SS-058-0204 | 1104050-07 | 04/08/11 11:20 | 15.90 | 1.00 |
| 05-SS-057-0204 | 1104050-08 | 04/08/11 11:20 | 15.50 | 1.00 |
| 05-SS-056-0204 | 1104050-09 | 04/08/11 11:20 | 15.80 | 1.00 |
| 05-SS-055-0204 | 1104050-10 | 04/08/11 11:20 | 15.00 | 1.00 |
| Blank | 1D07009-BLK1 | 04/08/11 11:20 | 15.00 | 1.00 |
| LCS | 1D07009-BS1 | 04/08/11 11:20 | 15.00 | 1.00 |
| 05-SS-061-0204 | 1D07009-MS1 | 04/08/11 11:20 | 15.10 | 1.00 |
| 05-SS-061-0204 | 1D07009-MSD1 | 04/08/11 11:20 | 15.50 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D07009-BLK1 | File ID: | D07009B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/12/11 11:59 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D07009 Sequence: 1D10409 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.0133 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.0133 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.0133 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.0133 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.0133 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.0133 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.0133 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.0133 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.0133 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.820 | 84.6 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 3.085 | 92.5 | 14 - 129 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10414 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10414-TUN1 | SEQ-TUN2.D | 04/12/11 22:47 |
| Calibration Check | 1D10414-CCV1 | SEQ-CCV2.D | 04/12/11 23:07 |
| 05-SS-060-0204 | 1104050-05 | 0405005.D | 04/12/11 23:35 |
| 05-SS-059-0204 | 1104050-06 | 0405006.D | 04/13/11 00:03 |
| 05-SS-058-0204 | 1104050-07 | 0405007.D | 04/13/11 00:30 |
| 05-SS-057-0204 | 1104050-08 | 0405008.D | 04/13/11 00:58 |
| 05-SS-056-0204 | 1104050-09 | 0405009.D | 04/13/11 01:26 |
| 05-SS-055-0204 | 1104050-10 | 0405010.D | 04/13/11 01:53 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/12/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 22:47 |
| Sequence: | 1D10414 | Lab Sample ID: | 1D10414-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 53.4 | PASS |
| 68 | Less than 2% of 69 | 1.64 | PASS |
| 69 | Less than 200% of 198 | 51.5 | PASS |
| 70 | Less than 2% of 69 | 0.518 | PASS |
| 127 | 40 - 60% of 198 | 54.7 | PASS |
| 197 | Less than 1% of 198 | 0.0139 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.7 | PASS |
| 275 | 10 - 30% of 198 | 28.5 | PASS |
| 365 | 1 - 200% of 198 | 4.55 | PASS |
| 441 | 0.001 - 100% of 443 | 82.2 | PASS |
| 442 | 40 - 200% of 198 | 172 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV2.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10414 | Injection Date: | 04/12/11 |
| Lab Sample ID: | 1D10414-CCV1 | Injection Time: | 23:07 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.751 | 0.8277096 | 0.7864335 | | -5.0 | 20 |
| Acenaphthylene | A | 5.000 | 4.815 | 1.235702 | 1.189899 | | -3.7 | 20 |
| Anthracene | A | 5.000 | 5.273 | 1.13295 | 1.194793 | | 5.5 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.943 | 0.8691476 | 0.9084615 | | -1.1 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.881 | 1.056815 | 1.031633 | | -2.4 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.700 | 1.338014 | 1.25774 | | -6.0 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.259 | 0.9482109 | 0.8076463 | | -14.8 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.416 | 1.2951 | 1.402976 | | 8.3 | 20 |
| Chrysene | A | 5.000 | 5.112 | 0.8791148 | 0.8987705 | | 2.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.902 | 0.8237431 | 0.807532 | | -2.0 | 20 |
| Fluoranthene | A | 5.000 | 4.981 | 1.197097 | 1.19265 | | -0.4 | 20 |
| Fluorene | A | 5.000 | 5.176 | 0.7884623 | 0.8161469 | | 3.5 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.727 | 1.067942 | 1.009716 | | -5.5 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.467 | 0.8735331 | 0.7804615 | | -10.7 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.637 | 0.8753044 | 0.8117876 | | -7.3 | 20 |
| Naphthalene | A | 5.000 | 4.371 | 1.363682 | 1.192177 | | -12.6 | 20 |
| Phenanthrene | A | 5.000 | 4.914 | 1.17432 | 1.154028 | | -1.7 | 20 |
| Pyrene | A | 5.000 | 5.039 | 1.206692 | 1.216062 | | 0.8 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.556 | 0.8894126 | 0.8103633 | | -8.9 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.121 | 0.7416898 | 0.7596934 | | 2.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10520 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10520-TUN1 | SEQ-TUN1.D | 04/14/11 17:01 |
| Calibration Check | 1D10520-CCV1 | SEQ-CCV1.D | 04/14/11 17:55 |
| Blank | 1D11008-BLK1 | D11008B1.D | 04/14/11 18:51 |
| LCS | 1D11008-BS1 | D11008L1.D | 04/14/11 19:18 |
| EQUIP BLANK 03 | 1104050-11 | 0405011.D | 04/14/11 20:13 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/14/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 17:01 |
| Sequence: | 1D10520 | Lab Sample ID: | 1D10520-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 49.7 | PASS |
| 68 | Less than 2% of 69 | 1.57 | PASS |
| 69 | Less than 200% of 198 | 50.3 | PASS |
| 70 | Less than 2% of 69 | 0.509 | PASS |
| 127 | 40 - 60% of 198 | 56.5 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.5 | PASS |
| 275 | 10 - 30% of 198 | 25.9 | PASS |
| 365 | 1 - 200% of 198 | 3.6 | PASS |
| 441 | 0.001 - 100% of 443 | 81.2 | PASS |
| 442 | 40 - 200% of 198 | 120 | PASS |
| 443 | 17 - 23% of 442 | 19.9 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10520 | Injection Date: | 04/14/11 |
| Lab Sample ID: | 1D10520-CCV1 | Injection Time: | 17:55 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.716 | 0.8277096 | 0.7806893 | | -5.7 | 20 |
| Acenaphthylene | A | 5.000 | 4.806 | 1.235702 | 1.18764 | | -3.9 | 20 |
| Anthracene | A | 5.000 | 4.941 | 1.13295 | 1.119547 | | -1.2 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.169 | 0.8691476 | 0.7602684 | | -16.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.952 | 1.056815 | 1.046574 | | -1.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.683 | 1.338014 | 1.253292 | | -6.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.860 | 0.9482109 | 0.9217351 | | -2.8 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.800 | 1.2951 | 1.243419 | | -4.0 | 20 |
| Chrysene | A | 5.000 | 4.112 | 0.8791148 | 0.7230389 | | -17.8 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.234 | 0.8237431 | 0.8623851 | | 4.7 | 20 |
| Fluoranthene | A | 5.000 | 4.627 | 1.197097 | 1.107889 | | -7.5 | 20 |
| Fluorene | A | 5.000 | 5.075 | 0.7884623 | 0.8003314 | | 1.5 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.008 | 1.067942 | 1.069644 | | 0.2 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.513 | 0.8735331 | 0.788455 | | -9.7 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.584 | 0.8753044 | 0.8025711 | | -8.3 | 20 |
| Naphthalene | A | 5.000 | 4.425 | 1.363682 | 1.206896 | | -11.5 | 20 |
| Phenanthrene | A | 5.000 | 4.840 | 1.17432 | 1.136866 | | -3.2 | 20 |
| Pyrene | A | 5.000 | 4.576 | 1.206692 | 1.104384 | | -8.5 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.560 | 0.8894126 | 0.8112454 | | -8.8 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.675 | 0.7416898 | 0.6934826 | | -6.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D11008 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 03 | 1104050-11 | 04/11/11 13:56 | 1,020.00 | 1.00 |
| Blank | 1D11008-BLK1 | 04/11/11 13:56 | 1,000.00 | 1.00 |
| LCS | 1D11008-BS1 | 04/11/11 13:56 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D11008-BLK1 | File ID: | D11008B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/14/11 18:51 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1D11008 Sequence: 1D10520 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 41.45 | 82.9 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 38.06 | 76.1 | 34 - 167 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| Cal Standard | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| Cal Standard | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| Cal Standard | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| Cal Standard | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| Cal Standard | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |
| Initial Cal Check | 1B05902-ICV1 | 002F0201.D | 02/27/11 14:40 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1B05902 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1B05902-CAL6 | 002F0201.D | 02/25/11 12:08 |
| 11B0727 | FLPRO CAL5 850ppm | 1B05902-CAL5 | 003F0301.D | 02/25/11 12:50 |
| 11B0726 | FLPRO CAL4 2550ppm | 1B05902-CAL4 | 004F0401.D | 02/25/11 13:32 |
| 11B0725 | FLPRO CAL3 4250ppm | 1B05902-CAL3 | 005F0501.D | 02/25/11 14:15 |
| 11B0724 | FLPRO CAL2 5950ppm | 1B05902-CAL2 | 006F0601.D | 02/25/11 14:57 |
| 11B0723 | FLPRO CAL1 8500ppm | 1B05902-CAL1 | 007F0701.D | 02/25/11 15:39 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1059001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 2/25/11 12:08 2/25/11 15:39 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1357.428 | 13.14176 | 2.64 | 1.458778E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1856.637 | 17.02584 | 10.99367 | 0.4529372 | | | 20 | |
| o-Terphenyl | 2492.101 | 3.004445 | 16.57033 | 8.740256E-02 | | | 20 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10110 | Instrument: | GL-GCFID2 |
| Calibration: | 1059001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10110-CCV1 | 002F0201.D | 04/10/11 12:31 |
| Blank | 1D05022-BLK1 | 003F0301.D | 04/10/11 13:14 |
| LCS | 1D05022-BS1 | 004F0401.D | 04/10/11 13:56 |
| Calibration Check | 1D10110-CCV2 | 017F1701.D | 04/10/11 23:09 |
| 05-SS-065-0204 | 1104026-02 | 023F2301.D | 04/11/11 03:24 |
| 05-SS-064-0204 | 1104026-03 | 024F2401.D | 04/11/11 04:06 |
| 05-SS-063-0204 | 1104026-04 | 025F2501.D | 04/11/11 04:49 |
| Calibration Check | 1D10110-CCV3 | 026F2601.D | 04/11/11 05:31 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D10110 | Injection Date: | 04/10/11 |
| Lab Sample ID: | 1D10110-CCV1 | Injection Time: | 12:31 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3884 | 1357.428 | 1240.676 | | -8.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.32 | 1856.637 | 1955.08 | | 5.3 | 25 |
| o-Terphenyl | A | 25.00 | 20.55 | 2492.101 | 2048.4 | | -17.8 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 017F1701.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D10110 | Injection Date: | 04/10/11 |
| Lab Sample ID: | 1D10110-CCV2 | Injection Time: | 23:09 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4041 | 1357.428 | 1290.63 | | -4.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 25.19 | 1856.637 | 1870.76 | | 0.8 | 25 |
| o-Terphenyl | A | 25.00 | 20.94 | 2492.101 | 2087.12 | | -16.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1059001 |
| Lab File ID: | 026F2601.D | Calibration Date: | 02/25/11 12:08 |
| Sequence: | 1D10110 | Injection Date: | 04/11/11 |
| Lab Sample ID: | 1D10110-CCV3 | Injection Time: | 05:31 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4110 | 1357.428 | 1312.622 | | -3.3 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 25.59 | 1856.637 | 1900.28 | | 2.4 | 25 |
| o-Terphenyl | A | 25.00 | 23.84 | 2492.101 | 2376 | | -4.7 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D05022 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-065-0204 | 1104026-02 | 04/08/11 20:01 | 15.40 | 2.00 |
| 05-SS-064-0204 | 1104026-03 | 04/08/11 20:01 | 15.60 | 2.00 |
| 05-SS-063-0204 | 1104026-04 | 04/08/11 20:01 | 15.10 | 2.00 |
| Blank | 1D05022-BLK1 | 04/08/11 20:01 | 15.00 | 2.00 |
| LCS | 1D05022-BS1 | 04/08/11 20:01 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

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| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D05022-BLK1 | File ID: | 003F0301.D |
| Sampled: | | Prepared: | | Analyzed: | 04/10/11 13:14 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D05022 Sequence: 1D10110 Calibration: 1059001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.177 | 95.3 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.205 | 66.1 | 35 - 140 | |

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| Cal Standard | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| Cal Standard | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| Cal Standard | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| Cal Standard | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| Cal Standard | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |
| Initial Cal Check | 1D10403-ICV1 | 009F0701.D | 04/13/11 19:46 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| 11B0727 | FLPRO CAL5 850ppm | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| 11B0726 | FLPRO CAL4 2550ppm | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| 11B0725 | FLPRO CAL3 4250ppm | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| 11B0724 | FLPRO CAL2 5950ppm | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| 11B0723 | FLPRO CAL1 8500ppm | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 | | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | | |
| Calibration: | 1104001 | Instrument: | GL-GCFID2 | | |
| Matrix: | Water | Calibration Dates: | 4/13/11_15:31 | 4/13/11_19:04 | |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1688.919 | 5.182621 | 2.923 | 2.565533E-02 | | | 20 | |
| 2-Fluorobiphenyl | 2920.489 | 12.42221 | 10.68433 | 0.709301 | | | 20 | |
| o-Terphenyl | 3802.792 | 5.518154 | 16.28583 | 7.880568E-02 | | | 20 | |
| Petroleum Range Organics | 1688.919 | 5.182621 | 2.923 | 2.565533E-02 | | | 20 | |
| 2-Fluorobiphenyl | 2920.489 | 12.42221 | 10.68433 | 0.709301 | | | 20 | |
| o-Terphenyl | 3802.792 | 5.518154 | 16.28583 | 7.880568E-02 | | | 20 | |

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10404 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10404-CCV1 | 010F0801.D | 04/13/11 20:28 |
| Blank | 1D11006-BLK1 | 019F1701.D | 04/14/11 02:48 |
| LCS | 1D11006-BS1 | 020F1801.D | 04/14/11 03:30 |
| LCS Dup | 1D11006-BSD1 | 021F1901.D | 04/14/11 04:13 |
| EQUIP BLANK 03 | 1104050-11 | 022F2001.D | 04/14/11 04:55 |
| Calibration Check | 1D10404-CCV2 | 024F2201.D | 04/14/11 06:19 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 010F0801.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10404 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10404-CCV1 | Injection Time: | 20:28 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4593 | 1688.919 | 1825.266 | | 8.1 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 24.61 | 2920.489 | 2875.08 | | -1.6 | 25 |
| o-Terphenyl | A | 25.00 | 20.71 | 3802.792 | 3150.2 | | -17.2 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 024F2201.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10404 | Injection Date: | 04/14/11 |
| Lab Sample ID: | 1D10404-CCV2 | Injection Time: | 06:19 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4584 | 1688.919 | 1821.778 | | 7.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 24.72 | 2920.489 | 2887.64 | | -1.1 | 25 |
| o-Terphenyl | A | 25.00 | 20.99 | 3802.792 | 3192.68 | | -16.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D11006 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 03 | 1104050-11 | 04/11/11 13:56 | 1,040.00 | 2.00 |
| Blank | 1D11006-BLK1 | 04/11/11 13:56 | 1,000.00 | 2.00 |
| LCS | 1D11006-BS1 | 04/11/11 13:56 | 1,000.00 | 2.00 |
| LCS Dup | 1D11006-BSD1 | 04/11/11 13:56 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D11006-BLK1 | File ID: | 019F1701.D |
| Sampled: | | Prepared: | | Analyzed: | 04/14/11 02:48 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1D11006 Sequence: 1D10404 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.03700 | 74.0 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.03468 | 69.4 | 82 - 142 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11108 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D11108-CCV1 | 002F0201.D | 04/19/11 09:11 |
| Blank | 1D09815-BLK1 | 004F0401.D | 04/19/11 10:36 |
| LCS | 1D09815-BS1 | 005F0501.D | 04/19/11 11:19 |
| 05-SS-062-0204-D | 1104050-01 | 006F0601.D | 04/19/11 12:01 |
| 05-SS-062-0204 | 1104050-02 | 007F0701.D | 04/19/11 12:44 |
| 05-SS-061-0204 | 1104050-03 | 008F0801.D | 04/19/11 13:26 |
| 05-SS-061-0204 | 1D09815-MS2 | 009F0901.D | 04/19/11 14:09 |
| 05-SS-061-0204 | 1D09815-MSD2 | 010F1001.D | 04/19/11 14:52 |
| 05-SS-060-0204 | 1104050-05 | 011F1101.D | 04/19/11 15:34 |
| 05-SS-059-0204 | 1104050-06 | 012F1201.D | 04/19/11 16:17 |
| 05-SS-058-0204 | 1104050-07 | 013F1301.D | 04/19/11 17:00 |
| 05-SS-057-0204 | 1104050-08 | 014F1401.D | 04/19/11 17:42 |
| 05-SS-056-0204 | 1104050-09 | 015F1501.D | 04/19/11 18:25 |
| 05-SS-055-0204 | 1104050-10 | 016F1601.D | 04/19/11 19:07 |
| Calibration Check | 1D11108-CCV2 | 017F1701.D | 04/19/11 19:50 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11108-CCV1 | Injection Time: | 09:11 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3785 | 1688.919 | 1504.083 | | -10.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 22.21 | 2920.489 | 2594.64 | | -11.2 | 25 |
| o-Terphenyl | A | 25.00 | 22.09 | 3802.792 | 3360.36 | | -11.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 017F1701.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11108-CCV2 | Injection Time: | 19:50 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4013 | 1688.919 | 1594.634 | | -5.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.26 | 2920.489 | 2717.92 | | -6.9 | 25 |
| o-Terphenyl | A | 25.00 | 24.34 | 3802.792 | 3703.12 | | -2.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D09815 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-062-0204-D | 1104050-01 | 04/18/11 08:20 | 15.70 | 2.00 |
| 05-SS-062-0204 | 1104050-02 | 04/18/11 08:20 | 15.70 | 2.00 |
| 05-SS-061-0204 | 1104050-03 | 04/18/11 08:20 | 15.60 | 2.00 |
| 05-SS-060-0204 | 1104050-05 | 04/18/11 08:20 | 15.10 | 2.00 |
| 05-SS-059-0204 | 1104050-06 | 04/18/11 08:20 | 15.00 | 2.00 |
| 05-SS-058-0204 | 1104050-07 | 04/18/11 08:20 | 15.20 | 2.00 |
| 05-SS-057-0204 | 1104050-08 | 04/18/11 08:20 | 15.20 | 2.00 |
| 05-SS-056-0204 | 1104050-09 | 04/18/11 08:20 | 15.30 | 2.00 |
| 05-SS-055-0204 | 1104050-10 | 04/18/11 08:20 | 15.20 | 2.00 |
| Blank | 1D09815-BLK1 | 04/18/11 08:20 | 15.00 | 2.00 |
| LCS | 1D09815-BS1 | 04/18/11 08:20 | 15.00 | 2.00 |
| 05-SS-061-0204 | 1D09815-MS2 | 04/18/11 08:20 | 15.50 | 2.00 |
| 05-SS-061-0204 | 1D09815-MSD2 | 04/18/11 08:20 | 15.20 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D09815-BLK1 | File ID: | 004F0401.D |
| Sampled: | | Prepared: | | Analyzed: | 04/19/11 10:36 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.566 | 77.0 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.136 | 64.1 | 35 - 140 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |
| Cal Standard | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| Initial Cal Check | 0L34409-ICV1 | 010R0101.D | 12/09/10 17:04 |
| Initial Cal Check | 0L34409-ICV1 | 010F0101.D | 12/09/10 17:04 |

# INITIAL CALIBRATION STANDARDS

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 17489.79 | 18.96825 | 1.543 | 1.749237E-02 | | 0.9996372 | CCC () | * |
| 1,2-Dibromoethane [2C] | 37183.36 | 15.05167 | 0.583 | 2.248094E-02 | | 0.9995717 | CCC () | * |
| 1,2-Dibromo-3-chloropropane | 35650.07 | 32.01128 | 6.973 | 2.748517E-02 | | 0.9987968 | CCC () | * |
| 1,2-Dibromo-3-chloropropane [2C] | 100449.9 | 35.64558 | 4.139286 | 5.910871E-02 | | 0.9986728 | CCC () | * |

# INITIAL CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 010F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 0L34409 | Injection Date: | 12/09/10 |
| Lab Sample ID: | 0L34409-ICV1 | Injection Time: | 17:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4746 | 17489.79 | 14620 | | -5.1 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4584 | 37183.36 | 30824 | | -8.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10420 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10420-CCV1 | 001R0201.D | 04/13/11 08:55 |
| LCS | 1D09902-BS1 | 003R0201.D | 04/13/11 09:37 |
| Blank | 1D09902-BLK1 | 004R0201.D | 04/13/11 09:59 |
| EQUIP BLANK 03 | 1104050-11 | 011R0201.D | 04/13/11 12:28 |
| Calibration Check | 1D10420-CCV2 | 016R0201.D | 04/13/11 14:15 |

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 001R0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D10420 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10420-CCV1 | Injection Time: | 08:55 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5960 | 37183.36 | 38386 | | 19.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 016R0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D10420 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10420-CCV2 | Injection Time: | 14:15 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4856 | 37183.36 | 32358 | | -2.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D09902 Batch Matrix: Water Preparation: EDB

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 03 | 1104050-11 | 04/11/11 13:00 | 35.00 | 35.00 |
| Blank | 1D09902-BLK1 | 04/11/11 13:00 | 35.00 | 35.00 |
| LCS | 1D09902-BS1 | 04/11/11 13:00 | 35.00 | 35.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_005 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D09902-BLK1 | File ID: | 004R0201.D |
| Sampled: | | Prepared: | 04/11/11 13:00 | Analyzed: | 04/13/11 09:59 |
| Solids: | | Preparation: | EDB | Dilution: | |

Batch: 1D09902 Sequence: 1D10420 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10802 | Instrument: | ME-ICP |
| Calibration: | 1108001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D10802-CAL1 | 041511A-001 | 04/15/11 08:45 |
| Cal Standard | 1D10802-CAL6 | 041511A-009 | 04/15/11 09:27 |
| Cal Standard | 1D10802-CAL2 | 041511A-010 | 04/15/11 09:34 |
| Cal Standard | 1D10802-CAL3 | 041511A-011 | 04/15/11 09:39 |
| Initial Cal Check | 1D10802-ICV1 | 041511B-001 | 04/15/11 10:28 |
| Initial Cal Blank | 1D10802-ICB1 | 041511B-002 | 04/15/11 10:38 |
| Instrument RL Check | 1D10802-CRL1 | 041511B-003 | 04/15/11 10:43 |
| Interference Check A | 1D10802-IFA1 | 041511B-005 | 04/15/11 10:53 |
| Interference Check B | 1D10802-IFB1 | 041511B-006 | 04/15/11 10:59 |
| Calibration Check | 1D10802-CCV1 | 041511B-008 | 04/15/11 11:10 |
| Calibration Blank | 1D10802-CCB1 | 041511B-009 | 04/15/11 11:17 |
| Blank | 1D14003-BLK1 | 041511B-010 | 04/15/11 11:22 |
| LCS | 1D14003-BS1 | 041511B-011 | 04/15/11 11:27 |
| Calibration Check | 1D10802-CCV2 | 041511B-015 | 04/15/11 11:50 |
| Calibration Blank | 1D10802-CCB2 | 041511B-016 | 04/15/11 11:57 |

# INITIAL CALIBRATION DATA (Continued)

## SW6010B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley |
| Calibration: | 1108001 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/15/11 8:45 4/15/11 9:56 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 1.163355E-05 | 66.69182 | 4.288165 | 150.1778 | 0.9999997 | | 0.998 | |
| Antimony | 5.603525E-04 | 66.72244 | 10.62569 | 190.4856 | 0.9999999 | | 0.998 | |
| Arsenic | 2.37555E-04 | 66.79714 | 13.38256 | 189.851 | 0.9999985 | | 0.998 | |
| Barium | 0.0072547 | 66.76903 | 1.721832 | 154.2106 | 0.9999928 | | 0.998 | |
| Beryllium | 2.069825E-03 | 66.80737 | 12.40617 | 189.2069 | 0.999955 | | 0.998 | |
| Boron | 1.2232E-05 | 67.56274 | 2.235748 | 112.3104 | 0.9999933 | | 0.998 | |
| Cadmium | 4.207325E-03 | 66.73308 | 3.50788 | 167.472 | 0.9999841 | | 0.998 | |
| Calcium | 3.429573E-05 | 66.72825 | 1.091192 | 171.4841 | 0.9999852 | | 0.998 | |
| Chromium | 2.56425E-05 | 66.72292 | 3.427805 | 149.1544 | 0.9999953 | | 0.998 | |
| Cobalt | 4.332025E-03 | 66.6923 | 2.373813 | 168.4604 | 0.9999935 | | 0.998 | |
| Copper | 6.292475E-05 | 66.71046 | 1.343993 | 68.26305 | 0.9999995 | | 0.998 | |
| Iron | 1.132434E-05 | 66.87867 | 16.83975 | 188.099 | 0.9999989 | | 0.998 | |
| Lead | 7.4718E-04 | 66.68896 | 11.76555 | 188.9232 | 0.9999921 | | 0.998 | |
| Magnesium | 1.23669E-06 | 66.75097 | 30.13601 | 195.9971 | 0.9999289 | | 0.998 | |
| Manganese | 1.5427E-04 | 66.98906 | 2.81785 | 146.7831 | 0.999941 | | 0.998 | |
| Molybdenum | 0.0029834 | 66.7724 | 27.31205 | 195.0784 | 0.9999991 | | 0.998 | |
| Nickel | 0.0024656 | 66.69042 | 3.554298 | 181.0612 | 0.9999957 | | 0.998 | |
| Potassium | 7.084975E-06 | 66.79983 | 243.449 | 199.1469 | 0.9999805 | | 0.998 | |
| Selenium | 2.801925E-04 | 66.67227 | 4.700038 | 178.879 | 0.9999997 | | 0.998 | |
| Silver | 3.549E-05 | 66.68878 | 6.799963 | 165.5512 | 0.9999323 | | 0.998 | |
| Sodium | 3.38285E-05 | 66.67775 | 1.254305 | 63.28484 | 0.9999868 | | 0.998 | |
| Strontium | 1.17925E-03 | 66.69414 | 5.45735 | 174.153 | 0.9999998 | | 0.998 | |
| Thallium | 6.167625E-04 | 66.67441 | 12.38833 | 190.0375 | 0.9999972 | | 0.998 | |
| Tin | 7.73865E-04 | 66.68721 | 41.58897 | 198.132 | 0.9999854 | | 0.998 | |
| Titanium | 1.590175E-04 | 66.73495 | 1.403587 | 142.4552 | 0.9999996 | | 0.998 | |
| Vanadium | 2.85945E-05 | 66.73208 | 5.49707 | 175.9775 | 0.9999994 | | 0.998 | |
| Zinc | 3.28805E-03 | 66.67736 | 14.00775 | 195.0022 | 0.9999996 | | 0.998 | |

# INITIAL AND CONTINUING CALIBRATION CHECK

## SW6010C

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP

SDG: CTOJM26_005
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1108001
Sequence: 1D10802

| Lab Sample ID | Analyte | True | Found | %R | Units | Control Limit |
|---|---|---|---|---|---|---|
| 1D10802-ICV1 | Lead | 1000 | 988.6 | 98.9 | ug/L | +/- 10.00% |
| 1D10802-CCV1 | Lead | 1000 | 981.1 | 98.1 | ug/L | +/- 10.00% |
| 1D10802-CCV2 | Lead | 1000 | 990.7 | 99.1 | ug/L | +/- 10.00% |

# ANALYSIS SEQUENCE SUMMARY

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11028 | Instrument: | ME-ICP |
| Calibration: | 1110004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D11028-CAL1 | 041911A-001 | 04/19/11 11:12 |
| Cal Standard | 1D11028-CAL2 | 041911A-002 | 04/19/11 11:17 |
| Cal Standard | 1D11028-CAL3 | 041911A-003 | 04/19/11 11:22 |
| Cal Standard | 1D11028-CAL6 | 041911A-006 | 04/19/11 11:36 |
| Initial Cal Check | 1D11028-ICV1 | 041911B-001 | 04/19/11 12:24 |
| Initial Cal Blank | 1D11028-ICB1 | 041911B-002 | 04/19/11 12:31 |
| Instrument RL Check | 1D11028-CRL1 | 041911B-003 | 04/19/11 12:36 |
| Interference Check A | 1D11028-IFA1 | 041911B-006 | 04/19/11 12:52 |
| Interference Check B | 1D11028-IFB1 | 041911B-007 | 04/19/11 12:58 |
| Calibration Check | 1D11028-CCV1 | 041911B-009 | 04/19/11 13:09 |
| Calibration Blank | 1D11028-CCB1 | 041911B-010 | 04/19/11 13:17 |
| Calibration Check | 1D11028-CCV7 | 041911C-057 | 04/19/11 22:08 |
| Calibration Blank | 1D11028-CCB7 | 041911C-058 | 04/19/11 22:15 |
| EQUIP BLANK 03 | 1104050-11 | 041911C-062 | 04/19/11 22:34 |
| Calibration Check | 1D11028-CCV8 | 041911C-068 | 04/19/11 23:03 |
| Calibration Blank | 1D11028-CCB8 | 041911C-069 | 04/19/11 23:10 |

# INITIAL CALIBRATION DATA (Continued)

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_005 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110004 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/19/11 11:12 4/19/11 11:48 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 1.377075E-05 | 66.67984 | 8.062005 | 182.4825 | 0.9999999 | | 0.998 | |
| Antimony | 6.334125E-04 | 66.79822 | 4.194153 | 134.7617 | 0.999997 | | 0.998 | |
| Arsenic | 2.736575E-04 | 66.9357 | 4.440225 | 153.6878 | 0.9999831 | | 0.998 | |
| Barium | 0.0097842 | 66.73468 | 3.483207 | 130.0635 | 0.9999709 | | 0.998 | |
| Beryllium | 2.053475E-03 | 66.75308 | 2.564237 | 132.7977 | 0.9999836 | | 0.998 | |
| Boron | 9.802E-06 | 66.70459 | 16.01786 | 190.0127 | 0.9999808 | | 0.998 | |
| Cadmium | 1.155675E-02 | 66.77873 | 3.78984 | 152.4635 | 0.9999498 | | 0.998 | |
| Calcium | 2.968359E-05 | 66.78788 | 2.013183 | 126.1209 | 0.9999918 | | 0.998 | |
| Chromium | 2.671475E-05 | 66.74352 | 4.73897 | 171.4899 | 0.9999976 | | 0.998 | |
| Cobalt | 4.932225E-03 | 66.67269 | 4.275465 | 154.884 | 0.9999999 | | 0.998 | |
| Copper | 6.133025E-05 | 66.73372 | 1.883443 | 137.7451 | 0.9999992 | | 0.998 | |
| Iron | 1.08623E-05 | 66.79544 | 31.99572 | 194.6655 | 0.9999993 | | 0.998 | |
| Lead | 1.086325E-03 | 66.66706 | 38.91587 | 193.2082 | 0.9999999 | | 0.998 | |
| Magnesium | 1.268605E-06 | 66.89949 | 17.10319 | 191.7309 | 0.9998408 | | 0.998 | |
| Manganese | 1.708775E-04 | 66.93734 | 10.08231 | 173.1061 | 0.9999524 | | 0.998 | |
| Molybdenum | 3.315375E-03 | 66.73241 | 16.42153 | 188.6469 | 0.9999929 | | 0.998 | |
| Nickel | 2.657725E-03 | 66.69235 | 1.845545 | 108.8512 | 0.9999984 | | 0.998 | |
| Potassium | 6.977E-06 | 67.94011 | 4.250825 | 137.1076 | 0.9999946 | | 0.998 | |
| Selenium | 3.52365E-04 | 66.68893 | 8.004945 | 174.6824 | 0.9999925 | | 0.998 | |
| Silver | 3.919375E-05 | 66.74164 | 3.07386 | 101.9411 | 0.9999981 | | 0.998 | |
| Sodium | 3.182575E-05 | 66.69953 | 8.28641 | 173.7676 | 0.9999871 | | 0.998 | |
| Strontium | 0.00116 | 66.69896 | 2.79425 | 123.7653 | 0.9999991 | | 0.998 | |
| Thallium | 6.8235E-04 | 66.66874 | 13.17056 | 181.2485 | 0.9999998 | | 0.998 | |
| Tin | 1.017735E-03 | 66.70002 | 23.05877 | 190.8629 | 0.9999764 | | 0.998 | |
| Titanium | 1.584975E-04 | 66.71271 | 3.306415 | 161.1227 | 0.9999958 | | 0.998 | |
| Vanadium | 3.157825E-05 | 66.74042 | 2.53606 | 149.5397 | 0.9999999 | | 0.998 | |
| Zinc | 4.52115E-03 | 66.73726 | 82.4444 | 197.694 | 0.9999733 | | 0.998 | |

# INITIAL AND CONTINUING CALIBRATION CHECK

## SW6010C

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Instrument ID: ME-ICP`

SDG: CTOJM26_005

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1110004

Sequence: 1DI1028

| Lab Sample ID | Analyte | True | Found | %R | Units | Control Limit |
|---|---|---|---|---|---|---|
| 1D11028-ICV1 | Lead | 1000 | 992.2 | 99.2 | ug/L | +/- 10.00% |
| 1D11028-CCV1 | Lead | 1000 | 1009 | 101 | ug/L | +/- 10.00% |
| 1D11028-CCV7 | Lead | 1000 | 1009 | 101 | ug/L | +/- 10.00% |
| 1D11028-CCV8 | Lead | 1000 | 1023 | 102 | ug/L | +/- 10.00% |

# CRDL STANDARD

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1108001

Sequence: 1D10802

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| 1D10802-CRL1 | Lead | 3.000 | 2.663 | 88.8 | ug/L | 80 - 120 |

# CRDL STANDARD

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1110004

Sequence: 1D11028

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| 1D11028-CRL1 | Lead | 3.000 | 3.035 | 101 | ug/L | 80 - 120 |

# PREPARATION BATCH SUMMARY

## SW6010C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_005

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D14003 Batch Matrix: Water Preparation: MET_3005A

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 03 | 1104050-11 | 04/14/11 07:55 | 50.00 | 50.00 |
| Blank | 1D14003-BLK1 | 04/14/11 07:55 | 50.00 | 50.00 |
| LCS | 1D14003-BS1 | 04/14/11 07:55 | 50.00 | 50.00 |

# BLANKS
## SW6010C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_005
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D10802
Calibration: 1108001

| Lab Sample ID | Analyte | Found | MDL | MRL | Units | C | Method |
|---|---|---|---|---|---|---|---|
| 1D10802-ICB1 | Lead | -0.5896 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D10802-CCB1 | Lead | -0.210 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D14003-BLK1 | Lead | -0.991 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D10802-CCB2 | Lead | 0.175 | 1.50 | 3.00 | ug/L | U | SW6010C |

# BLANKS
## SW6010C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_005
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D11028
Calibration: 1110004

| Lab Sample ID | Analyte | Found | MDL | MRL | Units | C | Method |
|---|---|---|---|---|---|---|---|
| 1D11028-ICB1 | Lead | 0.4364 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11028-CCB1 | Lead | 0.335 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11028-CCB7 | Lead | -0.0558 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11028-CCB8 | Lead | 0.146 | 1.50 | 3.00 | ug/L | U | SW6010C |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_005

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** ME-ICP

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Lead | 1.50 | 3.00 | ug/L | SW6010C |

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 19, 2011** |
| **FROM:** | **JOSEPH KALINYAK** | **COPIES:** | **DV FILE** |

**SUBJECT:** **ORGANIC DATA VALIDATION - VOC / MTBE/BTEX / PAH / TPH**
**INORGANIC DATA VALIDATION - LEAD**
**SAUFLEY FIELD, CTO JM26**
**SDG CTOJM26_006**

**SAMPLES:** 2 / Aqueous / VOC / 1,2-Dibromoethane (SW-846 8011)

05-MW-039 05-MW-049

2 / Aqueous / VOC

Trip Blank #9476 TRIP BLANK #9477

2 / Aqueous / MTBE/BTEX

EQUIP BLANK 04 EQUIP BLANK 05

4 / Aqueous / PAH / TPH / Lead

05-MW-039 05-MW-049 EQUIP BLANK 04
EQUIP BLANK 05

16 / Soil / MTBE/BTEX / PAH / TPH

| | | |
|---|---|---|
| 05-SS-037-0204 | 05-SS-037-0204-D | 05-SS-038-0204 |
| 05-SS-039-0204 | 05-SS-040-0204 | 05-SS-041-0204 |
| 05-SS-042-0204 | 05-SS-043-0204 | 05-SS-044-0204 |
| 05-SS-045-0204 | 05-SS-045-0204-D | 05-SS-046-0204 |
| 05-SS-047-0204 | 05-SS-048-0204 | 05-SS-049-0204 |
| 05-SS-050-0204 | | |

## OVERVIEW

The sample set for Saufley Field, CTO JM26, SDG CTOJM26_006 consisted of sixteen (16) soil environmental samples and six (6) aqueous samples including two (2) aqueous QC trip blank samples and two (2) aqueous QC equipment blank samples. The soil samples were analyzed for an abbreviated list of volatile organic compounds (VOCs) (benzene, ethylbenzene, toluene, and total xylenes (BTEX), and methyl tert-butyl ether (MTBE)), polynuclear aromatic hydrocarbons (PAH), and total petroleum hydrocarbons (TPH) as listed above. The two (2) ground water samples were analyzed for VOCs, 1,2-dibromoethane, PAHs, TPH, and lead as listed above. The two (2) aqueous trip blanks samples were analyzed for VOCs only and the two (2) aqueous equipment blank samples were analyzed for MTBE/BTEX, PAH, TPH, and lead as listed above. Two (2) field duplicate sample pairs were included in this sample delivery group (SDG); 05-SS-037-0204-D / 05-SS-037-0204 and 05-SS-045-0204-D / 05-SS-045-0204.

The samples were collected by TetraTech NUS on April 6 and 8, 2011 and analyzed by Empirical Laboratories LLC. All analyses were conducted using USEPA SW-846 Methods 8260B, 8270C, 8011, 6010C, and Florida Petroleum Range Organics (FL-PRO) analytical and reporting protocols.

The sample data in this SDG were validated with regard to the following list of parameters.

- * Data Completeness
- * Holding Times
- * GC/MS Tuning
- Initial and Continuing Calibration
- Laboratory Blank Analyses
- * Field Duplicate Precision
- * Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

**VOC**

The initial calibration relative response factor (RRF) was less than the 0.05 quality control limit for acrolein for instrument MS-VOA4 on 03/24/11 affecting the analysis of aqueous samples 05-MW-039, 05-MW-049, Trip Blank #9476, and TRIP BLANK #9477. Additionally, the continuing calibration verification (CCV) RRF for instrument MS-VOA4 on 04/15/11 @ 20:20 was less than the 0.05 quality control limit for acrolein. The aqueous samples 05-MW-039, 05-MW-049, Trip Blank #9476, and TRIP BLANK #9477 non-detected acrolein results were qualified rejected, (UR).

The continuing calibration verification (CCV) percent difference (%D) was greater than the 20% quality control limit for bromomethane and chloroethane for instrument MS-VOA4 on 04/15/11 @ 20:20 affecting samples 05-MW-049 and TRIP BLANK #9477. The non-detected sample 05-MW-049 and TRIP BLANK #9477 bromomethane and chloroethane results were qualified estimated, (UJ).

The CCV %D was greater than the 20% quality control limit for acrolein for instrument MS-VOA4 on 04/15/11 @ 08:09 affecting samples 05-MW-039 and Trip Blank #9476. No action was taken as the non-detected sample 05-MW-049 and TRIP BLANK #9477 acrolein results were previously qualified rejected.

**PAH**

The following PAH laboratory contaminant was detected in the method blank for batch 1D13011 at the following maximum concentration affecting the samples 05-MW-049, EQUIP BLANK 04, and EQUIP BLANK 05.

| Analyte | Maximum Conc. µg/l | Action Level µg/l |
|---|---|---|
| Benzo(a)anthracene | 0.221 | 1.105 |

An action level of five times the maximum level for the laboratory contaminant benzo(a)anthracene has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. No samples were qualified for method blank contamination.

EQUIP BLANK 04 and EQUIP BLANK 05 aqueous samples had positive detections for naphthalene.

**1,2-DIBROMOETHANE**

The CCV %D was greater than the 20% quality control limit for 1,2-dibromoethane for instrument GL-ECD2 on the 8011R column on 04/19/11 @ 14:06, @ 16:52, and @ 20:25 affecting sample 05-MW-049. The sample 05-MW-049 1,2-dibromoethane result was not qualified as the alternate 8011F column %Ds were within the quality control limits for the aforementioned times and the sample had a non-detected result.

Per the laboratory narrative, sample 05-MW-039 was "... reported only from column 2 (8011R) due to instrument issues on column 1...". As the sample had a non-detected result on column 2, no validation action was taken.

**TPH**

The following TPH laboratory contaminant was detected in the method blank for batch 1D13010 at the following maximum concentration affecting the samples 05-MW-049, EQUIP BLANK 04, and EQUIP BLANK 05.

| Analyte | Maximum Conc. µg/l | Action Level µg/l |
|---|---|---|
| TPH | 0.758 | 3.790 |

An action level of five times the maximum level for the laboratory contaminant TPH has been used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when evaluating for blank contamination. The QC equipment blanks were not qualified for method blank contamination. No samples were qualified for method blank contamination.

**LEAD**

The ground water sample 05-MW-039 was diluted 5X for the lead analysis.

**ADDITIONAL COMMENTS**

Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the detection limit.

The aqueous trip blank samples were not analyzed for lead but the aqueous equipment blank samples were analyzed for lead by the laboratory as listed on the Chain of Custody (COC).

The COC forms incorrectly listed the VOC analyses for the aqueous trip blank samples as BTEX/MTBE and the aqueous equipment blank samples as VOC. The aqueous trip blank samples were to have been analyzed for the full list of VOCs identified in the Sample Analysis Plan (SAP) and the aqueous equipment blank samples were to have been analyzed for BTEX/MTBE. The laboratory analyzed all aqueous samples and QC blank samples for VOCs only. The electronic database (EDD) was corrected to include only the BTEX/MTBE analyses for the aqueous equipment blank samples. The aqueous trip blank samples did not have the lower level 1,2-dibromoethane analysis performed by the laboratory (8011), therefore the 1,2-dibromoethane results in the EDD for the trip blank samples are from the SW-846 8260 method performed by the laboratory.

The aqueous sample 05-MW-039 had laboratory reported Method Detection Limits (MDL) greater than the Project Action Limit (PAL) for the PAHs benzo(a)anthracene, benzo(b)fluoranthene, and indeno(1,2,3-cd)pyrene. The aqueous samples 05-MW-039, 05-MW-049, Trip Blank #9476, and TRIP BLANK #9477 had laboratory reported Method Detection Limits (MDL) greater than the Project Action Limit (PAL) for the VOCs 1,1,2,2-tetrachloroethane and acrylonitrile as listed in the Sampling and Analysis Plan (SAP). The SAP had noted that the laboratory MDL was greater than the PAL and no action was taken for these issues.

**EXECUTIVE SUMMARY**

**Laboratory Performance Issues:** The laboratory used an incorrect list of VOC analytes for reporting trip blank sample results. Trichlorofluoromethane was missing from the revised analyte list. The laboratory resubmitted the trip blank sample results. VOC non-detected acrolein sample results were rejected due to initial calibration RRF quality control limit non-compliances. VOC sample non-detected results were qualified due to a CCV quality control limit non-compliance.

**Other factors affecting data quality:** Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999), the site Sample Analysis Plan (SAP), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Joseph Kalinyak
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

## Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

## DATA QUALIFICATION CODE (QUAL CODE)

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

| PROJ_NO: 02748 | NSAMPLE | 05-MW-039 | | | 05-MW-049 | | | 05-MW-049RE | | | EQUIP BLANK 04 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-06 | | | 1104107-10 | | | 1104107-10 | | | 1104107-08 | | |
| FRACTION: OV | SAMP_DATE | 4/6/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1,1,1-TRICHLOROETHANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| 1,1,2,2-TETRACHLOROETHANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| 1,1,2-TRICHLOROETHANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| 1,1-DICHLOROETHANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| 1,1-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | | | | | | | |
| 1,2,4-TRICHLOROBENZENE | | 0.25 | U | | 0.25 | U | | | | | | | |
| 1,2-DIBROMOETHANE | | 0.01 | U | | | | | 0.00944 | U | | | | |
| 1,2-DICHLOROETHANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| 1,2-DICHLOROPROPANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| 2-CHLOROETHYL VINYL ETHER | | 1.25 | U | | 1.25 | U | | | | | | | |
| ACROLEIN | | 1.25 | UR | C | 1.25 | UR | C | | | | | | |
| ACRYLONITRILE | | 2.5 | U | | 2.5 | U | | | | | | | |
| BENZENE | | 0.25 | U | | 0.25 | U | | | | | 0.25 | U | |
| BROMODICHLOROMETHANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| BROMOFORM | | 0.25 | U | | 0.25 | U | | | | | | | |
| BROMOMETHANE | | 0.5 | U | | 0.5 | UJ | C | | | | | | |
| CARBON TETRACHLORIDE | | 0.25 | U | | 0.25 | U | | | | | | | |
| CHLOROBENZENE | | 0.25 | U | | 0.25 | U | | | | | | | |
| CHLORODIBROMOMETHANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| CHLOROETHANE | | 0.5 | U | | 0.5 | UJ | C | | | | | | |
| CHLOROFORM | | 0.25 | U | | 0.25 | U | | | | | | | |
| CHLOROMETHANE | | 0.25 | U | | 0.25 | U | | | | | | | |
| CIS-1,2-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | | | | | | | |
| CIS-1,3-DICHLOROPROPENE | | 0.25 | U | | 0.25 | U | | | | | | | |
| ETHYLBENZENE | | 0.25 | U | | 0.25 | U | | | | | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | | 0.25 | U | | | | | 0.25 | U | |
| TETRACHLOROETHENE | | 0.669 | J | P | 0.25 | U | | | | | | | |
| TOLUENE | | 0.25 | U | | 0.252 | J | P | | | | 0.25 | U | |
| TOTAL XYLENES | | 0.75 | U | | 0.75 | U | | | | | 0.75 | U | |
| TRANS-1,2-DICHLOROETHENE | | 0.25 | U | | 0.25 | U | | | | | | | |
| TRANS-1,3-DICHLOROPROPENE | | 0.25 | U | | 0.25 | U | | | | | | | |
| TRICHLOROETHENE | | 0.25 | U | | 0.25 | U | | | | | | | |
| TRICHLOROFLUOROMETHANE | | 0.5 | U | | 0.5 | U | | | | | | | |
| VINYL CHLORIDE | | 0.25 | U | | 0.25 | U | | | | | | | |

| PROJ_NO: 02748 | NSAMPLE | EQUIP BLANK 05 | | | Trip Blank #9476 | | | TRIP BLANK #9477 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104107-09 | | | 1104084-01 | | | 1104107-11 | | |
| FRACTION: OV | SAMP_DATE | 4/8/2011 | | | 4/6/2011 | | | 4/8/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1,1,1-TRICHLOROETHANE | | | | | 0.25 | U | | 0.25 | U | |
| 1,1,2,2-TETRACHLOROETHANE | | | | | 0.25 | U | | 0.25 | U | |
| 1,1,2-TRICHLOROETHANE | | | | | 0.25 | U | | 0.25 | U | |
| 1,1-DICHLOROETHANE | | | | | 0.25 | U | | 0.25 | U | |
| 1,1-DICHLOROETHENE | | | | | 0.25 | U | | 0.25 | U | |
| 1,2,4-TRICHLOROBENZENE | | | | | 0.25 | U | | 0.25 | U | |
| 1,2-DIBROMOETHANE | | | | | 0.25 | U | | 0.25 | U | |
| 1,2-DICHLOROETHANE | | | | | 0.25 | U | | 0.25 | U | |
| 1,2-DICHLOROPROPANE | | | | | 0.25 | U | | 0.25 | U | |
| 2-CHLOROETHYL VINYL ETHER | | | | | 1.25 | U | | 1.25 | U | |
| ACROLEIN | | | | | 1.2 | UR | C | 1.25 | UR | C |
| ACRYLONITRILE | | | | | 2.5 | U | | 2.5 | U | |
| BENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| BROMODICHLOROMETHANE | | | | | 0.25 | U | | 0.25 | U | |
| BROMOFORM | | | | | 0.25 | U | | 0.25 | U | |
| BROMOMETHANE | | | | | 0.5 | U | | 0.5 | UJ | C |
| CARBON TETRACHLORIDE | | | | | 0.25 | U | | 0.25 | U | |
| CHLOROBENZENE | | | | | 0.25 | U | | 0.25 | U | |
| CHLORODIBROMOMETHANE | | | | | 0.25 | U | | 0.25 | U | |
| CHLOROETHANE | | | | | 0.5 | U | | 0.5 | UJ | C |
| CHLOROFORM | | | | | 0.25 | U | | 0.25 | U | |
| CHLOROMETHANE | | | | | 0.25 | U | | 0.25 | U | |
| CIS-1,2-DICHLOROETHENE | | | | | 0.25 | U | | 0.25 | U | |
| CIS-1,3-DICHLOROPROPENE | | | | | 0.25 | U | | 0.25 | U | |
| ETHYLBENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TETRACHLOROETHENE | | | | | 0.25 | U | | 0.25 | U | |
| TOLUENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TOTAL XYLENES | | 0.75 | U | | 0.75 | U | | 0.75 | U | |
| TRANS-1,2-DICHLOROETHENE | | | | | 0.25 | U | | 0.25 | U | |
| TRANS-1,3-DICHLOROPROPENE | | | | | 0.25 | U | | 0.25 | U | |
| TRICHLOROETHENE | | | | | 0.25 | U | | 0.25 | U | |
| TRICHLOROFLUOROMETHANE | | | | | 0.5 | U | | 0.5 | U | |
| VINYL CHLORIDE | | | | | 0.25 | U | | 0.25 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-037-0204 | | | 05-SS-037-0204-D | | | 05-SS-038-0204 | | | 05-SS-039-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-03 | | | 1104084-02 | | | 1104084-04 | | | 1104084-05 | | |
| FRACTION: OV | SAMP_DATE | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.8 | | | 85.1 | | | 91.6 | | | 92.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00129 | U | | 0.00135 | U | | 0.00163 | U | | 0.00145 | U | |
| ETHYLBENZENE | | 0.00077 | U | | 0.00081 | U | | 0.00097 | U | | 0.00087 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00129 | U | | 0.00135 | U | | 0.00163 | U | | 0.00145 | U | |
| TOLUENE | | 0.00088 | U | | 0.00093 | U | | 0.00112 | U | | 0.00099 | U | |
| TOTAL XYLENES | | 0.00388 | U | | 0.00406 | U | | 0.0049 | U | | 0.00435 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-040-0204 | | | 05-SS-041-0204 | | | 05-SS-042-0204 | | | 05-SS-043-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-07 | | | 1104084-08 | | | 1104084-09 | | | 1104084-10 | | |
| FRACTION: OV | SAMP_DATE | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.5 | | | 93.1 | | | 90.5 | | | 84.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00145 | U | | 0.00139 | U | | 0.00134 | U | | 0.00129 | U | |
| ETHYLBENZENE | | 0.00087 | U | | 0.00083 | U | | 0.0008 | U | | 0.00077 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00145 | U | | 0.00139 | U | | 0.00134 | U | | 0.00129 | U | |
| TOLUENE | | 0.00099 | U | | 0.00095 | U | | 0.00092 | U | | 0.00088 | U | |
| TOTAL XYLENES | | 0.00435 | U | | 0.00418 | U | | 0.00403 | U | | 0.00387 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-044-0204 | | | 05-SS-045-0204 | | | 05-SS-045-0204-D | | | 05-SS-046-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-11 | | | 1104107-01 | | | 1104107-02 | | | 1104107-03 | | |
| FRACTION: OV | SAMP_DATE | 4/6/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 83.3 | | | 90.4 | | | 91.3 | | | 91.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00135 | U | | 0.00153 | U | | 0.0014 | U | | 0.00151 | U | |
| ETHYLBENZENE | | 0.0008 | U | | 0.00092 | U | | 0.00084 | U | | 0.0009 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00135 | U | | 0.00153 | U | | 0.0014 | U | | 0.00151 | U | |
| TOLUENE | | 0.00092 | U | | 0.00105 | U | | 0.00096 | U | | 0.00104 | U | |
| TOTAL XYLENES | | 0.00404 | U | | 0.0046 | U | | 0.00421 | U | | 0.00454 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-047-0204 | | | 05-SS-048-0204 | | | 05-SS-049-0204 | | | 05-SS-050-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104107-04 | | | 1104107-05 | | | 1104107-06RE1 | | | 1104107-07 | | |
| FRACTION: OV | SAMP_DATE | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 84.8 | | | 92.2 | | | 84.8 | | | 89.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00164 | U | | 0.00149 | U | | 0.00182 | U | | 0.00142 | U | |
| ETHYLBENZENE | | 0.00098 | U | | 0.00089 | U | | 0.00109 | U | | 0.00085 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00164 | U | | 0.00149 | U | | 0.00182 | U | | 0.00142 | U | |
| TOLUENE | | 0.00113 | U | | 0.00102 | U | | 0.00125 | U | | 0.00097 | U | |
| TOTAL XYLENES | | 0.00491 | U | | 0.00446 | U | | 0.00545 | U | | 0.00427 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-MW-039 | | | 05-MW-049 | | | EQUIP BLANK 04 | | | EQUIP BLANK 05 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-06 | | | 1104107-10 | | | 1104107-08 | | | 1104107-09 | | |
| FRACTION: PET | SAMP_DATE | 4/6/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/L | | | MG/L | | | MG/L | | | MG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.163 | U | | 0.17 | U | | 0.972 | | | 0.472 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-037-0204 | | | 05-SS-037-0204-D | | | 05-SS-038-0204 | | | 05-SS-039-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-03 | | | 1104084-02 | | | 1104084-04 | | | 1104084-05 | | |
| FRACTION: PET | SAMP_DATE | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.8 | | | 85.1 | | | 91.6 | | | 92.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.1 | U | | 12.7 | U | | 11.9 | U | | 11.7 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-040-0204 | | | 05-SS-041-0204 | | | 05-SS-042-0204 | | | 05-SS-043-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-07 | | | 1104084-08 | | | 1104084-09 | | | 1104084-10 | | |
| FRACTION: PET | SAMP_DATE | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.5 | | | 93.1 | | | 90.5 | | | 84.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.7 | U | | 11.5 | U | | 11.7 | U | | 12.9 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-044-0204 | | | 05-SS-045-0204 | | | 05-SS-045-0204-D | | | 05-SS-046-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-11 | | | 1104107-01 | | | 1104107-02 | | | 1104107-03 | | |
| FRACTION: PET | SAMP_DATE | 4/6/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 83.3 | | | 90.4 | | | 91.3 | | | 91.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.8 | U | | 11.5 | U | | 11.5 | U | | 11.5 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-047-0204 | | | 05-SS-048-0204 | | | 05-SS-049-0204 | | | 05-SS-050-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104107-04 | | | 1104107-05 | | | 1104107-06 | | | 1104107-07 | | |
| FRACTION: PET | SAMP_DATE | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 84.8 | | | 92.2 | | | 84.8 | | | 89.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.5 | U | | 11.6 | U | | 12.6 | U | | 11.8 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-MW-039 | | | 05-MW-049 | | | EQUIP BLANK 04 | | | EQUIP BLANK 05 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-06 | | | 1104107-10 | | | 1104107-08 | | | 1104107-09 | | |
| FRACTION: PAH | SAMP_DATE | 4/6/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| 2-METHYLNAPHTHALENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| ACENAPHTHENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| ACENAPHTHYLENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| ANTHRACENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| BENZO(A)ANTHRACENE | | 0.244 | | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| BENZO(A)PYRENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| BENZO(B)FLUORANTHENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| BENZO(K)FLUORANTHENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| CHRYSENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| FLUORANTHENE | | 0.111 | J | P | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| FLUORENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0556 | U | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| NAPHTHALENE | | 0.0556 | U | | 0.05 | U | | 0.0608 | J | P | 0.0626 | J | P |
| PHENANTHRENE | | 0.278 | | | 0.05 | U | | 0.05 | U | | 0.05 | U | |
| PYRENE | | 0.0922 | J | P | 0.05 | U | | 0.05 | U | | 0.05 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-037-0204 | | | 05-SS-037-0204-D | | | 05-SS-038-0204 | | | 05-SS-039-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-03 | | | 1104084-02 | | | 1104084-04 | | | 1104084-05 | | |
| FRACTION: PAH | SAMP_DATE | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.8 | | | 85.1 | | | 91.6 | | | 92.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| 2-METHYLNAPHTHALENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| ACENAPHTHENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| ACENAPHTHYLENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| ANTHRACENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| BENZO(A)ANTHRACENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| BENZO(A)PYRENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| BENZO(B)FLUORANTHENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00186 | U | | 0.00205 | J | P | 0.00173 | U | | 0.00175 | U | |
| BENZO(K)FLUORANTHENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| CHRYSENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| FLUORANTHENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| FLUORENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| NAPHTHALENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| PHENANTHRENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |
| PYRENE | | 0.00186 | U | | 0.00192 | U | | 0.00173 | U | | 0.00175 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-040-0204 | | | 05-SS-041-0204 | | | 05-SS-042-0204 | | | 05-SS-043-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-07 | | | 1104084-08 | | | 1104084-09 | | | 1104084-10 | | |
| FRACTION: PAH | SAMP_DATE | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | | 4/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.5 | | | 93.1 | | | 90.5 | | | 84.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| 2-METHYLNAPHTHALENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| ACENAPHTHENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| ACENAPHTHYLENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| ANTHRACENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| BENZO(A)ANTHRACENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| BENZO(A)PYRENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| BENZO(B)FLUORANTHENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| BENZO(K)FLUORANTHENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| CHRYSENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| FLUORANTHENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| FLUORENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| NAPHTHALENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| PHENANTHRENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |
| PYRENE | | 0.00175 | U | | 0.00172 | U | | 0.00179 | U | | 0.00191 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-044-0204 | | | 05-SS-045-0204 | | | 05-SS-045-0204-D | | | 05-SS-046-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-11 | | | 1104107-01 | | | 1104107-02 | | | 1104107-03 | | |
| FRACTION: PAH | SAMP_DATE | 4/6/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 83.3 | | | 90.4 | | | 91.3 | | | 91.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| 2-METHYLNAPHTHALENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| ACENAPHTHENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| ACENAPHTHYLENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| ANTHRACENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| BENZO(A)ANTHRACENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| BENZO(A)PYRENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| BENZO(B)FLUORANTHENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| BENZO(K)FLUORANTHENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| CHRYSENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| FLUORANTHENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| FLUORENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| NAPHTHALENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| PHENANTHRENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |
| PYRENE | | 0.00192 | U | | 0.00176 | U | | 0.00179 | U | | 0.00177 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-047-0204 | | | 05-SS-048-0204 | | | 05-SS-049-0204 | | | 05-SS-050-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104107-04 | | | 1104107-05 | | | 1104107-06 | | | 1104107-07 | | |
| FRACTION: PAH | SAMP_DATE | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 84.8 | | | 92.2 | | | 84.8 | | | 89.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| 2-METHYLNAPHTHALENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| ACENAPHTHENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| ACENAPHTHYLENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| ANTHRACENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| BENZO(A)ANTHRACENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| BENZO(A)PYRENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| BENZO(B)FLUORANTHENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| BENZO(K)FLUORANTHENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| CHRYSENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| FLUORANTHENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| FLUORENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| NAPHTHALENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| PHENANTHRENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |
| PYRENE | | 0.00194 | U | | 0.0018 | U | | 0.00191 | U | | 0.00185 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-MW-039 | | | 05-MW-049 | | | EQUIP BLANK 04 | | | EQUIP BLANK 05 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_006 | LAB_ID | 1104084-06 | | | 1104107-10 | | | 1104107-08 | | | 1104107-09 | | |
| FRACTION: M | SAMP_DATE | 4/6/2011 | | | 4/8/2011 | | | 4/8/2011 | | | 4/8/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| LEAD | | 343 | | | 69.7 | | | 1.5 | U | | 1.5 | U | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-MW-039**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1104084-06 | File ID: | 0408406.D |
| Sampled: | 04/06/11 10:45 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 12:55 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15002 Sequence: 1D10602 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | X, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | Q, U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | Q, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | 0.669 | 0.250 | 0.500 | 1.00 | I |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 29.52 | 98.4 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 32.40 | 108 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.96 | 107 | 70 - 120 | |

# ANALYSIS DATA SHEET

**05-MW-039**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1104084-06 | File ID: | 0408406.D |
| Sampled: | 04/06/11 10:45 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 12:55 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15002 Sequence: 1D10602 Calibration: 1084001 Instrument: MS-VOA4

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 29.82 | 99.4 | 85 - 120 | |

# ANALYSIS DATA SHEET

**05-MW-049**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-10 | File ID: | 0410710.D |
| Sampled: | 04/08/11 16:38 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/16/11 00:46 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15009 Sequence: 1D10603 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | X, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | Y, U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | 0.252 | 0.250 | 0.500 | 1.00 | I |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.40 | 101 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 32.86 | 110 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.04 | 103 | 70 - 120 | |

# ANALYSIS DATA SHEET

**05-MW-049**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-10 | File ID: | 0410710.D |
| Sampled: | 04/08/11 16:38 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/16/11 00:46 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15009 Sequence: 1D10603 Calibration: 1084001 Instrument: MS-VOA4

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 29.44 | 98.1 | 85 - 120 | |

# ANALYSIS DATA SHEET

**Trip Blank #9476**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104084-01 | File ID: | 0408401.D |
| Sampled: | 04/06/11 00:00 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 10:57 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15002 Sequence: 1D10602 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | X, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | Q, U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | Q, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.48 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 33.22 | 111 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.75 | 106 | 70 - 120 | |

# ANALYSIS DATA SHEET

**Trip Blank #9476**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104084-01 | File ID: | 0408401.D |
| Sampled: | 04/06/11 00:00 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 10:57 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15002 Sequence: 1D10602 Calibration: 1084001 Instrument: MS-VOA4

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 29.44 | 98.1 | 85 - 120 | |

# ANALYSIS DATA SHEET

**TRIP BLANK #9477**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-11 | File ID: | 0410711.D |
| Sampled: | 04/08/11 00:00 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 23:17 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15009 Sequence: 1D10603 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | X, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | Y, U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 29.82 | 99.4 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.80 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 29.98 | 99.9 | 70 - 120 | |

# ANALYSIS DATA SHEET

**TRIP BLANK #9477**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-11 | File ID: | 0410711.D |
| Sampled: | 04/08/11 00:00 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 23:17 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15009 Sequence: 1D10603 Calibration: 1084001 Instrument: MS-VOA4

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 29.53 | 98.4 | 85 - 120 | |

# ANALYSIS DATA SHEET

BTEX / MTBE only

**EQUIP BLANK 04**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104107-08 | File ID: | 0410708.D |
| Sampled: | 04/08/11 10:40 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 23:47 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15009 Sequence: 1D10603 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | X, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | Y, U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | 0.293 | 0.250 | 0.500 | 1.00 | I |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.81 | 103 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.25 | 104 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.57 | 102 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.77 | 103 | 85 - 120 | |

# ANALYSIS DATA SHEET

BTEX/MTBE only

**EQUIP BLANK 05**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104107-09 | File ID: | 0410709.D |
| Sampled: | 04/08/11 12:05 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/16/11 00:16 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D15009 Sequence: 1D10603 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | X, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | Y, U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | 0.268 | 0.250 | 0.500 | 1.00 | I |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 29.86 | 99.5 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 32.53 | 108 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.23 | 104 | 70 - 120 | |
| Toluene-d8 | 30.00 | 29.40 | 98.0 | 85 - 120 | |

# ANALYSIS DATA SHEET

05-SS-037-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-03 | File ID: | 0408403.D |
| Sampled: | 04/06/11 08:25 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 16:05 |
| Solids: | 88.76 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11009 Sequence: 1D10201 Calibration: 1098001 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00129 | 0.00258 | 0.00517 | U |
| 100-41-4 | Ethylbenzene | | 0.000775 | 0.00258 | 0.00517 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00129 | 0.00258 | 0.00517 | U |
| 108-88-3 | Toluene | | 0.000889 | 0.00258 | 0.00517 | U |
| 1330-20-7 | Xylenes (total) | | 0.00388 | 0.00775 | 0.0155 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03101 | 0.03104 | 100 | 85 - 120 | |
| Dibromofluoromethane | 0.03101 | 0.03305 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03101 | 0.02923 | 94.3 | 75 - 140 | |
| Toluene-d8 | 0.03101 | 0.02966 | 95.7 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-037-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-02 | File ID: | 0408402.D |
| Sampled: | 04/06/11 08:25 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 15:39 |
| Solids: | 85.08 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11009 Sequence: 1D10201 Calibration: 1098001 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00135 | 0.00271 | 0.00541 | U |
| 100-41-4 | Ethylbenzene | | 0.000812 | 0.00271 | 0.00541 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00135 | 0.00271 | 0.00541 | U |
| 108-88-3 | Toluene | | 0.000931 | 0.00271 | 0.00541 | U |
| 1330-20-7 | Xylenes (total) | | 0.00406 | 0.00812 | 0.0162 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03247 | 0.03294 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03247 | 0.03479 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03247 | 0.02977 | 91.7 | 75 - 140 | |
| Toluene-d8 | 0.03247 | 0.03053 | 94.0 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-038-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-04 | File ID: | 0408404.D |
| Sampled: | 04/06/11 09:05 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 14:11 |
| Solids: | 91.60 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11015 Sequence: 1D10207 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00163 | 0.00326 | 0.00653 | U |
| 100-41-4 | Ethylbenzene | | 0.000979 | 0.00326 | 0.00653 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00163 | 0.00326 | 0.00653 | U |
| 108-88-3 | Toluene | | 0.00112 | 0.00326 | 0.00653 | U |
| 1330-20-7 | Xylenes (total) | | 0.00490 | 0.00979 | 0.0196 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03917 | 0.03950 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03917 | 0.04176 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03917 | 0.03949 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03917 | 0.03948 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-039-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-05 | File ID: | 0408405.D |
| Sampled: | 04/06/11 09:55 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 16:31 |
| Solids: | 92.24 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11009 Sequence: 1D10201 Calibration: 1098001 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00145 | 0.00290 | 0.00580 | U |
| 100-41-4 | Ethylbenzene | | 0.000871 | 0.00290 | 0.00580 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00145 | 0.00290 | 0.00580 | U |
| 108-88-3 | Toluene | | 0.000998 | 0.00290 | 0.00580 | U |
| 1330-20-7 | Xylenes (total) | | 0.00435 | 0.00871 | 0.0174 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03482 | 0.03616 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03482 | 0.03827 | 110 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03482 | 0.03199 | 91.9 | 75 - 140 | |
| Toluene-d8 | 0.03482 | 0.03391 | 97.4 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-040-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-07 | File ID: | 0408407.D |
| Sampled: | 04/06/11 13:15 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 16:56 |
| Solids: | 92.54 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11009 Sequence: 1D10201 Calibration: 1098001 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00145 | 0.00290 | 0.00580 | U |
| 100-41-4 | Ethylbenzene | | 0.000870 | 0.00290 | 0.00580 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00145 | 0.00290 | 0.00580 | U |
| 108-88-3 | Toluene | | 0.000997 | 0.00290 | 0.00580 | U |
| 1330-20-7 | Xylenes (total) | | 0.00435 | 0.00870 | 0.0174 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03479 | 0.03599 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03479 | 0.03846 | 111 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03479 | 0.03404 | 97.9 | 75 - 140 | |
| Toluene-d8 | 0.03479 | 0.03334 | 95.8 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-041-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-08 | File ID: | 0408408.D |
| Sampled: | 04/06/11 13:45 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 17:22 |
| Solids: | 93.13 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11009 Sequence: 1D10201 Calibration: 1098001 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00139 | 0.00278 | 0.00557 | U |
| 100-41-4 | Ethylbenzene | | 0.000835 | 0.00278 | 0.00557 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00139 | 0.00278 | 0.00557 | U |
| 108-88-3 | Toluene | | 0.000958 | 0.00278 | 0.00557 | U |
| 1330-20-7 | Xylenes (total) | | 0.00418 | 0.00835 | 0.0167 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03341 | 0.03645 | 109 | 85 - 120 | |
| Dibromofluoromethane | 0.03341 | 0.03549 | 106 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03341 | 0.03095 | 92.6 | 75 - 140 | |
| Toluene-d8 | 0.03341 | 0.03304 | 98.9 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-042-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-09 | File ID: | 0408409.D |
| Sampled: | 04/06/11 14:15 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 17:47 |
| Solids: | 90.51 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11009 Sequence: 1D10201 Calibration: 1098001 Instrument: MS-VOA3

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00134 | 0.00269 | 0.00537 | U |
| 100-41-4 | Ethylbenzene | | 0.000806 | 0.00269 | 0.00537 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00134 | 0.00269 | 0.00537 | U |
| 108-88-3 | Toluene | | 0.000924 | 0.00269 | 0.00537 | U |
| 1330-20-7 | Xylenes (total) | | 0.00403 | 0.00806 | 0.0161 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03224 | 0.03196 | 99.1 | 85 - 120 | |
| Dibromofluoromethane | 0.03224 | 0.03597 | 112 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03224 | 0.03071 | 95.2 | 75 - 140 | |
| Toluene-d8 | 0.03224 | 0.02934 | 91.0 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-043-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-10 | File ID: | 0408410.D |
| Sampled: | 04/06/11 15:20 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 14:37 |
| Solids: | 84.74 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11015 Sequence: 1D10207 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00129 | 0.00258 | 0.00517 | U |
| 100-41-4 | Ethylbenzene | | 0.000775 | 0.00258 | 0.00517 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00129 | 0.00258 | 0.00517 | U |
| 108-88-3 | Toluene | | 0.000889 | 0.00258 | 0.00517 | U |
| 1330-20-7 | Xylenes (total) | | 0.00387 | 0.00775 | 0.0155 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03100 | 0.03120 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03100 | 0.03137 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03100 | 0.03033 | 97.8 | 75 - 140 | |
| Toluene-d8 | 0.03100 | 0.03243 | 105 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-044-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-11 | File ID: | 0408411.D |
| Sampled: | 04/06/11 16:00 | Prepared: | 04/11/11 00:00 | Analyzed: | 04/11/11 15:03 |
| Solids: | 83.26 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D11015 Sequence: 1D10207 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00135 | 0.00269 | 0.00538 | U |
| 100-41-4 | Ethylbenzene | | 0.000807 | 0.00269 | 0.00538 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00135 | 0.00269 | 0.00538 | U |
| 108-88-3 | Toluene | | 0.000926 | 0.00269 | 0.00538 | U |
| 1330-20-7 | Xylenes (total) | | 0.00404 | 0.00807 | 0.0161 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03229 | 0.03207 | 99.3 | 85 - 120 | |
| Dibromofluoromethane | 0.03229 | 0.03270 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03229 | 0.03039 | 94.1 | 75 - 140 | |
| Toluene-d8 | 0.03229 | 0.03355 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-045-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-01 | File ID: | 0410701.D |
| Sampled: | 04/08/11 11:40 | Prepared: | 04/13/11 00:00 | Analyzed: | 04/13/11 13:11 |
| Solids: | 90.42 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D13005 Sequence: 1D10402 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00153 | 0.00307 | 0.00613 | U |
| 100-41-4 | Ethylbenzene | | 0.000920 | 0.00307 | 0.00613 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00153 | 0.00307 | 0.00613 | U |
| 108-88-3 | Toluene | | 0.00105 | 0.00307 | 0.00613 | U |
| 1330-20-7 | Xylenes (total) | | 0.00460 | 0.00920 | 0.0184 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03678 | 0.03766 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03678 | 0.03764 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03678 | 0.03590 | 97.6 | 75 - 140 | |
| Toluene-d8 | 0.03678 | 0.03712 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-045-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104107-02 | File ID: | 0410702.D |
| Sampled: | 04/08/11 11:40 | Prepared: | 04/13/11 00:00 | Analyzed: | 04/13/11 13:36 |
| Solids: | 91.29 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D13005 Sequence: 1D10402 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00140 | 0.00281 | 0.00561 | U |
| 100-41-4 | Ethylbenzene | | 0.000842 | 0.00281 | 0.00561 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00140 | 0.00281 | 0.00561 | U |
| 108-88-3 | Toluene | | 0.000965 | 0.00281 | 0.00561 | U |
| 1330-20-7 | Xylenes (total) | | 0.00421 | 0.00842 | 0.0168 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03367 | 0.03342 | 99.3 | 85 - 120 | |
| Dibromofluoromethane | 0.03367 | 0.03449 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03367 | 0.03344 | 99.3 | 75 - 140 | |
| Toluene-d8 | 0.03367 | 0.03462 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-046-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-03 | File ID: | 0410703.D |
| Sampled: | 04/08/11 12:20 | Prepared: | 04/13/11 00:00 | Analyzed: | 04/13/11 14:00 |
| Solids: | 91.81 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D13005 Sequence: 1D10402 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00151 | 0.00303 | 0.00605 | U |
| 100-41-4 | Ethylbenzene | | 0.000908 | 0.00303 | 0.00605 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00151 | 0.00303 | 0.00605 | U |
| 108-88-3 | Toluene | | 0.00104 | 0.00303 | 0.00605 | U |
| 1330-20-7 | Xylenes (total) | | 0.00454 | 0.00908 | 0.0182 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03631 | 0.03686 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03631 | 0.03716 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03631 | 0.03547 | 97.7 | 75 - 140 | |
| Toluene-d8 | 0.03631 | 0.03721 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-047-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-04 | File ID: | 0410704.D |
| Sampled: | 04/08/11 13:05 | Prepared: | 04/13/11 00:00 | Analyzed: | 04/13/11 14:25 |
| Solids: | 84.85 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D13005 Sequence: 1D10402 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00164 | 0.00327 | 0.00655 | U |
| 100-41-4 | Ethylbenzene | | 0.000982 | 0.00327 | 0.00655 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00164 | 0.00327 | 0.00655 | U |
| 108-88-3 | Toluene | | 0.00113 | 0.00327 | 0.00655 | U |
| 1330-20-7 | Xylenes (total) | | 0.00491 | 0.00982 | 0.0196 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03929 | 0.03992 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03929 | 0.04081 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03929 | 0.03999 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03929 | 0.04012 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-048-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-05 | File ID: | 0410705.D |
| Sampled: | 04/08/11 13:50 | Prepared: | 04/13/11 00:00 | Analyzed: | 04/13/11 14:50 |
| Solids: | 92.16 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D13005 Sequence: 1D10402 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00149 | 0.00297 | 0.00595 | U |
| 100-41-4 | Ethylbenzene | | 0.000892 | 0.00297 | 0.00595 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00149 | 0.00297 | 0.00595 | U |
| 108-88-3 | Toluene | | 0.00102 | 0.00297 | 0.00595 | U |
| 1330-20-7 | Xylenes (total) | | 0.00446 | 0.00892 | 0.0178 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03569 | 0.03532 | 99.0 | 85 - 120 | |
| Dibromofluoromethane | 0.03569 | 0.03650 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03569 | 0.03462 | 97.0 | 75 - 140 | |
| Toluene-d8 | 0.03569 | 0.03643 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-049-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-06RE1 | File ID: | 0410706R.D |
| Sampled: | 04/08/11 15:55 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 10:25 |
| Solids: | 84.79 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00182 | 0.00363 | 0.00726 | U |
| 100-41-4 | Ethylbenzene | | 0.00109 | 0.00363 | 0.00726 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00182 | 0.00363 | 0.00726 | U |
| 108-88-3 | Toluene | | 0.00125 | 0.00363 | 0.00726 | U |
| 1330-20-7 | Xylenes (total) | | 0.00545 | 0.0109 | 0.0218 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.04357 | 0.04403 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.04357 | 0.04434 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.04357 | 0.04270 | 98.0 | 75 - 140 | |
| Toluene-d8 | 0.04357 | 0.04566 | 105 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-050-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-07 | File ID: | 0410707.D |
| Sampled: | 04/08/11 16:50 | Prepared: | 04/13/11 00:00 | Analyzed: | 04/13/11 15:40 |
| Solids: | 89.66 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D13005 Sequence: 1D10402 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00142 | 0.00285 | 0.00569 | U |
| 100-41-4 | Ethylbenzene | | 0.000854 | 0.00285 | 0.00569 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00142 | 0.00285 | 0.00569 | U |
| 108-88-3 | Toluene | | 0.000979 | 0.00285 | 0.00569 | U |
| 1330-20-7 | Xylenes (total) | | 0.00427 | 0.00854 | 0.0171 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03414 | 0.03417 | 100 | 85 - 120 | |
| Dibromofluoromethane | 0.03414 | 0.03514 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03414 | 0.03293 | 96.5 | 75 - 140 | |
| Toluene-d8 | 0.03414 | 0.03478 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-MW-039**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Ground Water | Laboratory ID: | 1104084-06 | File ID: | 0408406.D |
| Sampled: | 04/06/11 10:45 | Prepared: | 04/11/11 13:56 | Analyzed: | 04/14/11 20:41 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D11008 Sequence: 1D10520 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0556 | 0.111 | 0.222 | U |
| 208-96-8 | Acenaphthylene | | 0.0556 | 0.111 | 0.222 | U |
| 120-12-7 | Anthracene | | 0.0556 | 0.111 | 0.222 | U |
| 56-55-3 | Benzo(a)anthracene | 0.244 | 0.0556 | 0.111 | 0.222 | |
| 50-32-8 | Benzo(a)pyrene | | 0.0556 | 0.111 | 0.222 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0556 | 0.111 | 0.222 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0556 | 0.111 | 0.222 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0556 | 0.111 | 0.222 | U |
| 218-01-9 | Chrysene | | 0.0556 | 0.111 | 0.222 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0556 | 0.111 | 0.222 | U |
| 206-44-0 | Fluoranthene | 0.111 | 0.0556 | 0.111 | 0.222 | I |
| 86-73-7 | Fluorene | | 0.0556 | 0.111 | 0.222 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0556 | 0.111 | 0.222 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0556 | 0.111 | 0.222 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0556 | 0.111 | 0.222 | U |
| 91-20-3 | Naphthalene | | 0.0556 | 0.111 | 0.222 | U |
| 85-01-8 | Phenanthrene | 0.278 | 0.0556 | 0.111 | 0.222 | |
| 129-00-0 | Pyrene | 0.0922 | 0.0556 | 0.111 | 0.222 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 55.56 | 35.46 | 63.8 | 34 - 167 | |
| Terphenyl-d14 | 55.56 | 25.52 | 45.9 | 34 - 167 | |

# ANALYSIS DATA SHEET

**05-MW-049**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104107-10 | File ID: | 0410710.D |
| Sampled: | 04/08/11 16:38 | Prepared: | 04/13/11 11:27 | Analyzed: | 04/13/11 19:27 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D13011 Sequence: 1D10415 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 29.91 | 59.8 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 11.46 | 22.9 | 34 - 167 | * |

# ANALYSIS DATA SHEET

**EQUIP BLANK 04**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104107-08 | File ID: | 0410708.D |
| Sampled: | 04/08/11 10:40 | Prepared: | 04/13/11 11:27 | Analyzed: | 04/13/11 18:31 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D13011 Sequence: 1D10415 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 91-20-3 | Naphthalene | 0.0608 | 0.0500 | 0.100 | 0.200 | I |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 28.91 | 57.8 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 20.71 | 41.4 | 34 - 167 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK 05**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-09 | File ID: | 0410709.D |
| Sampled: | 04/08/11 12:05 | Prepared: | 04/13/11 11:27 | Analyzed: | 04/13/11 18:59 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D13011 Sequence: 1D10415 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 91-20-3 | Naphthalene | 0.0626 | 0.0500 | 0.100 | 0.200 | I |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 31.74 | 63.5 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 27.44 | 54.9 | 34 - 167 | |

# ANALYSIS DATA SHEET

05-SS-037-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-03 | File ID: | 0408403.D |
| Sampled: | 04/06/11 08:25 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 15:09 |
| Solids: | 88.76 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D09816 | Sequence: 1D11503 | Calibration: | 1112002 | Instrument: MS-BNA4 |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00186 | 0.00370 | 0.00742 | U |
| 208-96-8 | Acenaphthylene | | 0.00186 | 0.00370 | 0.00742 | U |
| 120-12-7 | Anthracene | | 0.00186 | 0.00370 | 0.00742 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00186 | 0.00370 | 0.00742 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00186 | 0.00370 | 0.00742 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00186 | 0.00370 | 0.00742 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00186 | 0.00370 | 0.00742 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00186 | 0.00370 | 0.00742 | U |
| 218-01-9 | Chrysene | | 0.00186 | 0.00370 | 0.00742 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00186 | 0.00370 | 0.00742 | U |
| 206-44-0 | Fluoranthene | | 0.00186 | 0.00370 | 0.00742 | U |
| 86-73-7 | Fluorene | | 0.00186 | 0.00370 | 0.00742 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00186 | 0.00370 | 0.00742 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00186 | 0.00370 | 0.00742 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00186 | 0.00370 | 0.00742 | U |
| 91-20-3 | Naphthalene | | 0.00186 | 0.00370 | 0.00742 | U |
| 85-01-8 | Phenanthrene | | 0.00186 | 0.00370 | 0.00742 | U |
| 129-00-0 | Pyrene | | 0.00186 | 0.00370 | 0.00742 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.706 | 2.713 | 73.2 | 14 - 129 | |
| Terphenyl-d14 | 3.706 | 3.091 | 83.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-037-0204-D

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-02 | File ID: | 0408402.D |
| Sampled: | 04/06/11 08:25 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 14:45 |
| Solids: | 85.08 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09816 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00192 | 0.00384 | 0.00769 | U |
| 208-96-8 | Acenaphthylene | | 0.00192 | 0.00384 | 0.00769 | U |
| 120-12-7 | Anthracene | | 0.00192 | 0.00384 | 0.00769 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00192 | 0.00384 | 0.00769 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00192 | 0.00384 | 0.00769 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00192 | 0.00384 | 0.00769 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 0.00205 | 0.00192 | 0.00384 | 0.00769 | I |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00192 | 0.00384 | 0.00769 | U |
| 218-01-9 | Chrysene | | 0.00192 | 0.00384 | 0.00769 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00192 | 0.00384 | 0.00769 | U |
| 206-44-0 | Fluoranthene | | 0.00192 | 0.00384 | 0.00769 | U |
| 86-73-7 | Fluorene | | 0.00192 | 0.00384 | 0.00769 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00192 | 0.00384 | 0.00769 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00192 | 0.00384 | 0.00769 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00192 | 0.00384 | 0.00769 | U |
| 91-20-3 | Naphthalene | | 0.00192 | 0.00384 | 0.00769 | U |
| 85-01-8 | Phenanthrene | | 0.00192 | 0.00384 | 0.00769 | U |
| 129-00-0 | Pyrene | | 0.00192 | 0.00384 | 0.00769 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.841 | 3.043 | 79.2 | 14 - 129 | |
| Terphenyl-d14 | 3.841 | 3.522 | 91.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-038-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-04 | File ID: | 0408404.D |
| Sampled: | 04/06/11 09:05 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 15:34 |
| Solids: | 91.60 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09816 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00173 | 0.00345 | 0.00691 | U |
| 208-96-8 | Acenaphthylene | | 0.00173 | 0.00345 | 0.00691 | U |
| 120-12-7 | Anthracene | | 0.00173 | 0.00345 | 0.00691 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00173 | 0.00345 | 0.00691 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00173 | 0.00345 | 0.00691 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00173 | 0.00345 | 0.00691 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00173 | 0.00345 | 0.00691 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00173 | 0.00345 | 0.00691 | U |
| 218-01-9 | Chrysene | | 0.00173 | 0.00345 | 0.00691 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00173 | 0.00345 | 0.00691 | U |
| 206-44-0 | Fluoranthene | | 0.00173 | 0.00345 | 0.00691 | U |
| 86-73-7 | Fluorene | | 0.00173 | 0.00345 | 0.00691 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00173 | 0.00345 | 0.00691 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00173 | 0.00345 | 0.00691 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00173 | 0.00345 | 0.00691 | U |
| 91-20-3 | Naphthalene | | 0.00173 | 0.00345 | 0.00691 | U |
| 85-01-8 | Phenanthrene | | 0.00173 | 0.00345 | 0.00691 | U |
| 129-00-0 | Pyrene | | 0.00173 | 0.00345 | 0.00691 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.455 | 2.586 | 74.8 | 14 - 129 | |
| Terphenyl-d14 | 3.455 | 3.080 | 89.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-039-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-05 | File ID: | 0408405.D |
| Sampled: | 04/06/11 09:55 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 16:48 |
| Solids: | 92.24 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09816 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00349 | 0.00700 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00349 | 0.00700 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00349 | 0.00700 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00349 | 0.00700 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00349 | 0.00700 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00349 | 0.00700 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00349 | 0.00700 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00349 | 0.00700 | U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00349 | 0.00700 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00349 | 0.00700 | U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00349 | 0.00700 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00349 | 0.00700 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00175 | 0.00349 | 0.00700 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00349 | 0.00700 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00349 | 0.00700 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00349 | 0.00700 | U |
| 85-01-8 | Phenanthrene | | 0.00175 | 0.00349 | 0.00700 | U |
| 129-00-0 | Pyrene | | 0.00175 | 0.00349 | 0.00700 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.497 | 2.730 | 78.1 | 14 - 129 | |
| Terphenyl-d14 | 3.497 | 3.178 | 90.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-040-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-07 | File ID: | 0408407.D |
| Sampled: | 04/06/11 13:15 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 17:13 |
| Solids: | 92.54 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09816 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00348 | 0.00698 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00348 | 0.00698 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00348 | 0.00698 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00348 | 0.00698 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00348 | 0.00698 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00348 | 0.00698 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00348 | 0.00698 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00348 | 0.00698 | U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00348 | 0.00698 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00348 | 0.00698 | U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00348 | 0.00698 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00348 | 0.00698 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00175 | 0.00348 | 0.00698 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00348 | 0.00698 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00348 | 0.00698 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00348 | 0.00698 | U |
| 85-01-8 | Phenanthrene | | 0.00175 | 0.00348 | 0.00698 | U |
| 129-00-0 | Pyrene | | 0.00175 | 0.00348 | 0.00698 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.486 | 2.780 | 79.7 | 14 - 129 | |
| Terphenyl-d14 | 3.486 | 3.065 | 87.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-041-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-08 | File ID: | 0408408.D |
| Sampled: | 04/06/11 13:45 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 17:38 |
| Solids: | 93.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09816 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00172 | 0.00344 | 0.00689 | U |
| 208-96-8 | Acenaphthylene | | 0.00172 | 0.00344 | 0.00689 | U |
| 120-12-7 | Anthracene | | 0.00172 | 0.00344 | 0.00689 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00172 | 0.00344 | 0.00689 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00172 | 0.00344 | 0.00689 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00172 | 0.00344 | 0.00689 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00172 | 0.00344 | 0.00689 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00172 | 0.00344 | 0.00689 | U |
| 218-01-9 | Chrysene | | 0.00172 | 0.00344 | 0.00689 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00172 | 0.00344 | 0.00689 | U |
| 206-44-0 | Fluoranthene | | 0.00172 | 0.00344 | 0.00689 | U |
| 86-73-7 | Fluorene | | 0.00172 | 0.00344 | 0.00689 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00172 | 0.00344 | 0.00689 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00172 | 0.00344 | 0.00689 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00172 | 0.00344 | 0.00689 | U |
| 91-20-3 | Naphthalene | | 0.00172 | 0.00344 | 0.00689 | U |
| 85-01-8 | Phenanthrene | | 0.00172 | 0.00344 | 0.00689 | U |
| 129-00-0 | Pyrene | | 0.00172 | 0.00344 | 0.00689 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.441 | 2.728 | 79.3 | 14 - 129 | |
| Terphenyl-d14 | 3.441 | 3.065 | 89.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-042-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-09 | File ID: | 0408409.D |
| Sampled: | 04/06/11 14:15 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 18:03 |
| Solids: | 90.51 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09816 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00356 | 0.00713 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00356 | 0.00713 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00356 | 0.00713 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00179 | 0.00356 | 0.00713 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00179 | 0.00356 | 0.00713 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00179 | 0.00356 | 0.00713 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00179 | 0.00356 | 0.00713 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00179 | 0.00356 | 0.00713 | U |
| 218-01-9 | Chrysene | | 0.00179 | 0.00356 | 0.00713 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00356 | 0.00713 | U |
| 206-44-0 | Fluoranthene | | 0.00179 | 0.00356 | 0.00713 | U |
| 86-73-7 | Fluorene | | 0.00179 | 0.00356 | 0.00713 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00179 | 0.00356 | 0.00713 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00356 | 0.00713 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00356 | 0.00713 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00356 | 0.00713 | U |
| 85-01-8 | Phenanthrene | | 0.00179 | 0.00356 | 0.00713 | U |
| 129-00-0 | Pyrene | | 0.00179 | 0.00356 | 0.00713 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.564 | 2.810 | 78.9 | 14 - 129 | |
| Terphenyl-d14 | 3.564 | 3.153 | 88.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-043-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-10 | File ID: | 0408410.D |
| Sampled: | 04/06/11 15:20 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 18:27 |
| Solids: | 84.74 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09816 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00191 | 0.00380 | 0.00762 | U |
| 208-96-8 | Acenaphthylene | | 0.00191 | 0.00380 | 0.00762 | U |
| 120-12-7 | Anthracene | | 0.00191 | 0.00380 | 0.00762 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00191 | 0.00380 | 0.00762 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00191 | 0.00380 | 0.00762 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00191 | 0.00380 | 0.00762 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00191 | 0.00380 | 0.00762 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00191 | 0.00380 | 0.00762 | U |
| 218-01-9 | Chrysene | | 0.00191 | 0.00380 | 0.00762 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00191 | 0.00380 | 0.00762 | U |
| 206-44-0 | Fluoranthene | | 0.00191 | 0.00380 | 0.00762 | U |
| 86-73-7 | Fluorene | | 0.00191 | 0.00380 | 0.00762 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00191 | 0.00380 | 0.00762 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00191 | 0.00380 | 0.00762 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00191 | 0.00380 | 0.00762 | U |
| 91-20-3 | Naphthalene | | 0.00191 | 0.00380 | 0.00762 | U |
| 85-01-8 | Phenanthrene | | 0.00191 | 0.00380 | 0.00762 | U |
| 129-00-0 | Pyrene | | 0.00191 | 0.00380 | 0.00762 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.807 | 2.650 | 69.6 | 14 - 129 | |
| Terphenyl-d14 | 3.807 | 3.079 | 80.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-044-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-11 | File ID: | 0408411.D |
| Sampled: | 04/06/11 16:00 | Prepared: | 04/18/11 07:18 | Analyzed: | 04/23/11 18:52 |
| Solids: | 83.26 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09816 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00192 | 0.00382 | 0.00765 | U |
| 208-96-8 | Acenaphthylene | | 0.00192 | 0.00382 | 0.00765 | U |
| 120-12-7 | Anthracene | | 0.00192 | 0.00382 | 0.00765 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00192 | 0.00382 | 0.00765 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00192 | 0.00382 | 0.00765 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00192 | 0.00382 | 0.00765 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00192 | 0.00382 | 0.00765 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00192 | 0.00382 | 0.00765 | U |
| 218-01-9 | Chrysene | | 0.00192 | 0.00382 | 0.00765 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00192 | 0.00382 | 0.00765 | U |
| 206-44-0 | Fluoranthene | | 0.00192 | 0.00382 | 0.00765 | U |
| 86-73-7 | Fluorene | | 0.00192 | 0.00382 | 0.00765 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00192 | 0.00382 | 0.00765 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00192 | 0.00382 | 0.00765 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00192 | 0.00382 | 0.00765 | U |
| 91-20-3 | Naphthalene | | 0.00192 | 0.00382 | 0.00765 | U |
| 85-01-8 | Phenanthrene | | 0.00192 | 0.00382 | 0.00765 | U |
| 129-00-0 | Pyrene | | 0.00192 | 0.00382 | 0.00765 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.825 | 2.838 | 74.2 | 14 - 129 | |
| Terphenyl-d14 | 3.825 | 3.474 | 90.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-045-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104107-01 | File ID: | 0410701.D |
| Sampled: | 04/08/11 11:40 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 19:16 |
| Solids: | 90.42 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00176 | 0.00352 | 0.00705 | U |
| 208-96-8 | Acenaphthylene | | 0.00176 | 0.00352 | 0.00705 | U |
| 120-12-7 | Anthracene | | 0.00176 | 0.00352 | 0.00705 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00176 | 0.00352 | 0.00705 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00176 | 0.00352 | 0.00705 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00176 | 0.00352 | 0.00705 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00176 | 0.00352 | 0.00705 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00176 | 0.00352 | 0.00705 | U |
| 218-01-9 | Chrysene | | 0.00176 | 0.00352 | 0.00705 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00176 | 0.00352 | 0.00705 | U |
| 206-44-0 | Fluoranthene | | 0.00176 | 0.00352 | 0.00705 | U |
| 86-73-7 | Fluorene | | 0.00176 | 0.00352 | 0.00705 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00176 | 0.00352 | 0.00705 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00176 | 0.00352 | 0.00705 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00176 | 0.00352 | 0.00705 | U |
| 91-20-3 | Naphthalene | | 0.00176 | 0.00352 | 0.00705 | U |
| 85-01-8 | Phenanthrene | | 0.00176 | 0.00352 | 0.00705 | U |
| 129-00-0 | Pyrene | | 0.00176 | 0.00352 | 0.00705 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.522 | 2.590 | 73.5 | 14 - 129 | |
| Terphenyl-d14 | 3.522 | 2.897 | 82.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-045-0204-D

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-02 | File ID: | 0410702.D |
| Sampled: | 04/08/11 11:40 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 19:41 |
| Solids: | 91.29 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D18014 | Sequence: 1D11503 | Calibration: | 1112002 | Instrument: MS-BNA4 |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00179 | 0.00358 | 0.00716 | U |
| 208-96-8 | Acenaphthylene | | 0.00179 | 0.00358 | 0.00716 | U |
| 120-12-7 | Anthracene | | 0.00179 | 0.00358 | 0.00716 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00179 | 0.00358 | 0.00716 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00179 | 0.00358 | 0.00716 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00179 | 0.00358 | 0.00716 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00179 | 0.00358 | 0.00716 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00179 | 0.00358 | 0.00716 | U |
| 218-01-9 | Chrysene | | 0.00179 | 0.00358 | 0.00716 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00179 | 0.00358 | 0.00716 | U |
| 206-44-0 | Fluoranthene | | 0.00179 | 0.00358 | 0.00716 | U |
| 86-73-7 | Fluorene | | 0.00179 | 0.00358 | 0.00716 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00179 | 0.00358 | 0.00716 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00179 | 0.00358 | 0.00716 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00179 | 0.00358 | 0.00716 | U |
| 91-20-3 | Naphthalene | | 0.00179 | 0.00358 | 0.00716 | U |
| 85-01-8 | Phenanthrene | | 0.00179 | 0.00358 | 0.00716 | U |
| 129-00-0 | Pyrene | | 0.00179 | 0.00358 | 0.00716 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.580 | 2.867 | 80.1 | 14 - 129 | |
| Terphenyl-d14 | 3.580 | 2.904 | 81.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-046-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-03 | File ID: | 0410703.D |
| Sampled: | 04/08/11 12:20 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 20:06 |
| Solids: | 91.81 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00177 | 0.00353 | 0.00708 | U |
| 208-96-8 | Acenaphthylene | | 0.00177 | 0.00353 | 0.00708 | U |
| 120-12-7 | Anthracene | | 0.00177 | 0.00353 | 0.00708 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00177 | 0.00353 | 0.00708 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00177 | 0.00353 | 0.00708 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00177 | 0.00353 | 0.00708 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00177 | 0.00353 | 0.00708 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00177 | 0.00353 | 0.00708 | U |
| 218-01-9 | Chrysene | | 0.00177 | 0.00353 | 0.00708 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00177 | 0.00353 | 0.00708 | U |
| 206-44-0 | Fluoranthene | | 0.00177 | 0.00353 | 0.00708 | U |
| 86-73-7 | Fluorene | | 0.00177 | 0.00353 | 0.00708 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00177 | 0.00353 | 0.00708 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00177 | 0.00353 | 0.00708 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00177 | 0.00353 | 0.00708 | U |
| 91-20-3 | Naphthalene | | 0.00177 | 0.00353 | 0.00708 | U |
| 85-01-8 | Phenanthrene | | 0.00177 | 0.00353 | 0.00708 | U |
| 129-00-0 | Pyrene | | 0.00177 | 0.00353 | 0.00708 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.536 | 2.788 | 78.8 | 14 - 129 | |
| Terphenyl-d14 | 3.536 | 2.816 | 79.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-047-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-04 | File ID: | 0410704.D |
| Sampled: | 04/08/11 13:05 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 21:20 |
| Solids: | 84.85 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00194 | 0.00387 | 0.00776 | U |
| 208-96-8 | Acenaphthylene | | 0.00194 | 0.00387 | 0.00776 | U |
| 120-12-7 | Anthracene | | 0.00194 | 0.00387 | 0.00776 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00194 | 0.00387 | 0.00776 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00194 | 0.00387 | 0.00776 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00194 | 0.00387 | 0.00776 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00194 | 0.00387 | 0.00776 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00194 | 0.00387 | 0.00776 | U |
| 218-01-9 | Chrysene | | 0.00194 | 0.00387 | 0.00776 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00194 | 0.00387 | 0.00776 | U |
| 206-44-0 | Fluoranthene | | 0.00194 | 0.00387 | 0.00776 | U |
| 86-73-7 | Fluorene | | 0.00194 | 0.00387 | 0.00776 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00194 | 0.00387 | 0.00776 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00194 | 0.00387 | 0.00776 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00194 | 0.00387 | 0.00776 | U |
| 91-20-3 | Naphthalene | | 0.00194 | 0.00387 | 0.00776 | U |
| 85-01-8 | Phenanthrene | | 0.00194 | 0.00387 | 0.00776 | U |
| 129-00-0 | Pyrene | | 0.00194 | 0.00387 | 0.00776 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.877 | 2.777 | 71.6 | 14 - 129 | |
| Terphenyl-d14 | 3.877 | 2.904 | 74.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-048-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-05 | File ID: | 0410705.D |
| Sampled: | 04/08/11 13:50 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 21:44 |
| Solids: | 92.16 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00180 | 0.00359 | 0.00719 | U |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00359 | 0.00719 | U |
| 120-12-7 | Anthracene | | 0.00180 | 0.00359 | 0.00719 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00180 | 0.00359 | 0.00719 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00180 | 0.00359 | 0.00719 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00180 | 0.00359 | 0.00719 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00180 | 0.00359 | 0.00719 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00180 | 0.00359 | 0.00719 | U |
| 218-01-9 | Chrysene | | 0.00180 | 0.00359 | 0.00719 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00180 | 0.00359 | 0.00719 | U |
| 206-44-0 | Fluoranthene | | 0.00180 | 0.00359 | 0.00719 | U |
| 86-73-7 | Fluorene | | 0.00180 | 0.00359 | 0.00719 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00180 | 0.00359 | 0.00719 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00180 | 0.00359 | 0.00719 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00180 | 0.00359 | 0.00719 | U |
| 91-20-3 | Naphthalene | | 0.00180 | 0.00359 | 0.00719 | U |
| 85-01-8 | Phenanthrene | | 0.00180 | 0.00359 | 0.00719 | U |
| 129-00-0 | Pyrene | | 0.00180 | 0.00359 | 0.00719 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.593 | 2.786 | 77.5 | 14 - 129 | |
| Terphenyl-d14 | 3.593 | 3.193 | 88.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-049-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-06 | File ID: | 0410706.D |
| Sampled: | 04/08/11 15:55 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 22:09 |
| Solids: | 84.79 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00191 | 0.00380 | 0.00761 | U |
| 208-96-8 | Acenaphthylene | | 0.00191 | 0.00380 | 0.00761 | U |
| 120-12-7 | Anthracene | | 0.00191 | 0.00380 | 0.00761 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00191 | 0.00380 | 0.00761 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00191 | 0.00380 | 0.00761 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00191 | 0.00380 | 0.00761 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00191 | 0.00380 | 0.00761 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00191 | 0.00380 | 0.00761 | U |
| 218-01-9 | Chrysene | | 0.00191 | 0.00380 | 0.00761 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00191 | 0.00380 | 0.00761 | U |
| 206-44-0 | Fluoranthene | | 0.00191 | 0.00380 | 0.00761 | U |
| 86-73-7 | Fluorene | | 0.00191 | 0.00380 | 0.00761 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00191 | 0.00380 | 0.00761 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00191 | 0.00380 | 0.00761 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00191 | 0.00380 | 0.00761 | U |
| 91-20-3 | Naphthalene | | 0.00191 | 0.00380 | 0.00761 | U |
| 85-01-8 | Phenanthrene | | 0.00191 | 0.00380 | 0.00761 | U |
| 129-00-0 | Pyrene | | 0.00191 | 0.00380 | 0.00761 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.804 | 2.960 | 77.8 | 14 - 129 | |
| Terphenyl-d14 | 3.804 | 3.361 | 88.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-050-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-07 | File ID: | 0410707.D |
| Sampled: | 04/08/11 16:50 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 22:34 |
| Solids: | 89.66 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00185 | 0.00369 | 0.00739 | U |
| 208-96-8 | Acenaphthylene | | 0.00185 | 0.00369 | 0.00739 | U |
| 120-12-7 | Anthracene | | 0.00185 | 0.00369 | 0.00739 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00185 | 0.00369 | 0.00739 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00185 | 0.00369 | 0.00739 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00185 | 0.00369 | 0.00739 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00185 | 0.00369 | 0.00739 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00185 | 0.00369 | 0.00739 | U |
| 218-01-9 | Chrysene | | 0.00185 | 0.00369 | 0.00739 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00185 | 0.00369 | 0.00739 | U |
| 206-44-0 | Fluoranthene | | 0.00185 | 0.00369 | 0.00739 | U |
| 86-73-7 | Fluorene | | 0.00185 | 0.00369 | 0.00739 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00185 | 0.00369 | 0.00739 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00185 | 0.00369 | 0.00739 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00185 | 0.00369 | 0.00739 | U |
| 91-20-3 | Naphthalene | | 0.00185 | 0.00369 | 0.00739 | U |
| 85-01-8 | Phenanthrene | | 0.00185 | 0.00369 | 0.00739 | U |
| 129-00-0 | Pyrene | | 0.00185 | 0.00369 | 0.00739 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.693 | 2.744 | 74.3 | 14 - 129 | |
| Terphenyl-d14 | 3.693 | 3.563 | 96.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-MW-039**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1104084-06 | File ID: | 014R0201.D |
| Sampled: | 04/06/11 10:45 | Prepared: | 04/11/11 13:00 | Analyzed: | 04/13/11 13:32 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D09902 Sequence: 1D10420 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane [2C] | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**05-MW-049**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104107-10 | File ID: | 013R0101.D |
| Sampled: | 04/08/11 16:38 | Prepared: | 04/18/11 09:50 | Analyzed: | 04/19/11 18:17 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D18006 Sequence: 1D11037 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00944 | 0.0189 | 0.0283 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**EQUIP BLANK 04**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-08 | File ID: | 011R0101.D |
| Sampled: | 04/08/11 10:40 | Prepared: | 04/18/11 09:50 | Analyzed: | 04/19/11 17:35 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D18006 Sequence: 1D11037 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00940 | 0.0188 | 0.0282 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**EQUIP BLANK 05**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-09 | File ID: | 012R0101.D |
| Sampled: | 04/08/11 12:05 | Prepared: | 04/18/11 09:50 | Analyzed: | 04/19/11 17:56 |
| Solids: | | Preparation: | EDB | Dilution: | 1 |

Batch: 1D18006 Sequence: 1D11037 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.00935 | 0.0187 | 0.0280 | U |

* Values outside of QC limits

# ANALYSIS DATA SHEET

**05-MW-039**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1104084-06 | File ID: | 023F2101.D |
| Sampled: | 04/06/11 10:45 | Prepared: | 04/11/11 13:56 | Analyzed: | 04/14/11 05:37 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D11006 Sequence: 1D10404 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.163 | 0.327 | 0.654 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04808 | 0.02661 | 55.4 | 50 - 150 | |
| o-Terphenyl | 0.04808 | 0.02397 | 49.9 | 82 - 142 | * |

# ANALYSIS DATA SHEET

**05-MW-049**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104107-10 | File ID: | 016F1401.D |
| Sampled: | 04/08/11 16:38 | Prepared: | 04/13/11 11:40 | Analyzed: | 04/14/11 00:42 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D13010 Sequence: 1D10404 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.07385 | 148 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.06602 | 132 | 82 - 142 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK 04**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-08 | File ID: | 014F1201.D |
| Sampled: | 04/08/11 10:40 | Prepared: | 04/13/11 11:40 | Analyzed: | 04/13/11 23:17 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D13010 Sequence: 1D10404 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 0.972 | 0.163 | 0.327 | 0.654 | V |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04808 | 0.07927 | 165 | 50 - 150 | * |
| o-Terphenyl | 0.04808 | 0.07276 | 151 | 82 - 142 | * |

# ANALYSIS DATA SHEET

**EQUIP BLANK 05**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104107-09 | File ID: | 015F1301.D |
| Sampled: | 04/08/11 12:05 | Prepared: | 04/13/11 11:40 | Analyzed: | 04/13/11 23:59 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D13010 Sequence: 1D10404 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 0.472 | 0.170 | 0.340 | 0.680 | IV |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.07816 | 156 | 50 - 150 | * |
| o-Terphenyl | 0.05000 | 0.07291 | 146 | 82 - 142 | * |

# ANALYSIS DATA SHEET

05-SS-037-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-03 | File ID: | 019F1901.D |
| Sampled: | 04/06/11 08:25 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 21:15 |
| Solids: | 88.76 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.1 | 24.1 | 48.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.658 | 2.861 | 78.2 | 50 - 150 | |
| o-Terphenyl | 3.658 | 2.787 | 76.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-037-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-02 | File ID: | 018F1801.D |
| Sampled: | 04/06/11 08:25 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 20:32 |
| Solids: | 85.08 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.7 | 25.4 | 50.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.841 | 3.049 | 79.4 | 50 - 150 | |
| o-Terphenyl | 3.841 | 3.016 | 78.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-038-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-04 | File ID: | 020F2001.D |
| Sampled: | 04/06/11 09:05 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/19/11 21:57 |
| Solids: | 91.60 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.7 | 47.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.591 | 2.817 | 78.5 | 50 - 150 | |
| o-Terphenyl | 3.591 | 2.674 | 74.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-039-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-05 | File ID: | 023F2301.D |
| Sampled: | 04/06/11 09:55 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/20/11 00:04 |
| Solids: | 92.24 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.7 | 23.4 | 46.8 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.543 | 2.363 | 66.7 | 50 - 150 | |
| o-Terphenyl | 3.543 | 2.568 | 72.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-040-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-07 | File ID: | 024F2401.D |
| Sampled: | 04/06/11 13:15 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/20/11 00:47 |
| Solids: | 92.54 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.7 | 23.5 | 46.9 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.555 | 2.727 | 76.7 | 50 - 150 | |
| o-Terphenyl | 3.555 | 2.650 | 74.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-041-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104084-08 | File ID: | 025F2501.D |
| Sampled: | 04/06/11 13:45 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/20/11 01:29 |
| Solids: | 93.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.0 | 46.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.486 | 2.748 | 78.8 | 50 - 150 | |
| o-Terphenyl | 3.486 | 2.631 | 75.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-042-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-09 | File ID: | 026F2601.D |
| Sampled: | 04/06/11 14:15 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/20/11 02:12 |
| Solids: | 90.51 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.7 | 23.4 | 46.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.541 | 2.649 | 74.8 | 50 - 150 | |
| o-Terphenyl | 3.541 | 2.559 | 72.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-043-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-10 | File ID: | 027F2701.D |
| Sampled: | 04/06/11 15:20 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/20/11 02:54 |
| Solids: | 84.74 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.9 | 25.8 | 51.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.907 | 2.802 | 71.7 | 50 - 150 | |
| o-Terphenyl | 3.907 | 2.754 | 70.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-044-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104084-11 | File ID: | 028F2801.D |
| Sampled: | 04/06/11 16:00 | Prepared: | 04/18/11 08:20 | Analyzed: | 04/20/11 03:36 |
| Solids: | 83.26 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D09815 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.8 | 25.6 | 51.1 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.874 | 2.956 | 76.3 | 50 - 150 | |
| o-Terphenyl | 3.874 | 2.897 | 74.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-045-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104107-01 | File ID: | 032F3201.D |
| Sampled: | 04/08/11 11:40 | Prepared: | 04/13/11 13:18 | Analyzed: | 04/15/11 07:39 |
| Solids: | 90.42 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D13012 | Sequence: | 1D10517 | Calibration: | 1104001 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.1 | 46.2 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.500 | 2.559 | 73.1 | 50 - 150 | |
| o-Terphenyl | 3.500 | 2.592 | 74.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-045-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-02 | File ID: | 033F3301.D |
| Sampled: | 04/08/11 11:40 | Prepared: | 04/13/11 13:18 | Analyzed: | 04/15/11 08:21 |
| Solids: | 91.29 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D13012 Sequence: 1D10517 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.0 | 46.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.488 | 2.558 | 73.3 | 50 - 150 | |
| o-Terphenyl | 3.488 | 2.469 | 70.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-046-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-03 | File ID: | 034F3401.D |
| Sampled: | 04/08/11 12:20 | Prepared: | 04/13/11 13:18 | Analyzed: | 04/15/11 09:03 |
| Solids: | 91.81 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D13012 Sequence: 1D10517 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.0 | 46.1 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.491 | 2.374 | 68.0 | 50 - 150 | |
| o-Terphenyl | 3.491 | 2.510 | 71.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-047-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104107-04 | File ID: | 037F3701.D |
| Sampled: | 04/08/11 13:05 | Prepared: | 04/13/11 13:18 | Analyzed: | 04/15/11 11:10 |
| Solids: | 84.85 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D13012 Sequence: 1D10517 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.5 | 24.9 | 49.9 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.777 | 2.691 | 71.2 | 50 - 150 | |
| o-Terphenyl | 3.777 | 2.679 | 70.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-048-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104107-05 | File ID: | 038F3801.D |
| Sampled: | 04/08/11 13:50 | Prepared: | 04/13/11 13:18 | Analyzed: | 04/15/11 11:52 |
| Solids: | 92.16 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D13012 Sequence: 1D10517 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.6 | 23.1 | 46.2 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.500 | 2.437 | 69.6 | 50 - 150 | |
| o-Terphenyl | 3.500 | 2.583 | 73.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-049-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104107-06 | File ID: | 039F3901.D |
| Sampled: | 04/08/11 15:55 | Prepared: | 04/13/11 13:18 | Analyzed: | 04/15/11 12:34 |
| Solids: | 84.79 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D13012 Sequence: 1D10517 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.6 | 25.3 | 50.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.829 | 2.519 | 65.8 | 50 - 150 | |
| o-Terphenyl | 3.829 | 2.686 | 70.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-050-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104107-07 | File ID: | 040F4001.D |
| Sampled: | 04/08/11 16:50 | Prepared: | 04/13/11 13:18 | Analyzed: | 04/15/11 13:17 |
| Solids: | 89.66 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D13012 Sequence: 1D10517 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.6 | 47.2 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.575 | 2.667 | 74.6 | 50 - 150 | |
| o-Terphenyl | 3.575 | 2.581 | 72.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-MW-039**

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Ground Water
Sampled: 04/06/11 10:45
% Solids: 0.00

SDG: CTOJM26_006
Project: NAS Pensacola CTO JM26 Saufley
Laboratory ID: 1104084-06
Received: 04/07/11 08:45

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 343 | 7.50 | 15.0 | 15.0 | 5 | D | SW6010C | 1D19002 | 04/20/11 17:26 |

# ANALYSIS DATA SHEET

**05-MW-049**

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Water
Sampled: 04/08/11 16:38
% Solids: 0.00

SDG: CTOJM26_006
Project: NAS Pensacola CTO JM26 Saufley
Laboratory ID: 1104107-10
Received: 04/09/11 08:30

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 69.7 | 1.50 | 3.00 | 3.00 | 1 | | SW6010C | ID19002 | 04/20/11 17:53 |

# ANALYSIS DATA SHEET

**EQUIP BLANK 04**

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Matrix: Water
Sampled: 04/08/11 10:40
% Solids: 0.00

SDG: CTOJM26_006
Project: NAS Pensacola CTO JM26 Saufley
Laboratory ID: 1104107-08
Received: 04/09/11 08:30

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | | 1.50 | 3.00 | 3.00 | 1 | U | SW6010C | 1D19002 | 04/20/11 17:31 |

# ANALYSIS DATA SHEET

**EQUIP BLANK 05**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104107-09 |
| Sampled: | 04/08/11 12:05 | Received: | 04/09/11 08:30 |
| % Solids: | 0.00 | | |

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | | 1.50 | 3.00 | 3.00 | 1 | U | SW6010C | 1D19002 | 04/20/11 17:49 |

# APPENDIX C

## SUPPORT DOCUMENTATION

**SDG** CTOJM26_006

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-039 | 1104084-06 | NM | 04/06/2011 | 04/19/2011 | 04/20/2011 | 13 | 1 | 14 |
| M | UG/L | 05-MW-049 | 1104107-10 | NM | 04/08/2011 | 04/19/2011 | 04/20/2011 | 11 | 1 | 12 |
| M | UG/L | EQUIP BLANK 04 | 1104107-08 | NM | 04/08/2011 | 04/19/2011 | 04/20/2011 | 11 | 1 | 12 |
| M | UG/L | EQUIP BLANK 05 | 1104107-09 | NM | 04/08/2011 | 04/19/2011 | 04/20/2011 | 11 | 1 | 12 |
| EDB | UG/L | 05-MW-049 | 1104107-10 | NM | 04/08/2011 | 04/18/2011 | 04/19/2011 | 10 | 1 | 11 |
| EDB | UG/L | EQUIP BLANK 04 | 1104107-08 | NM | 04/08/2011 | 04/18/2011 | 04/19/2011 | 10 | 1 | 11 |
| EDB | UG/L | EQUIP BLANK 05 | 1104107-09 | NM | 04/08/2011 | 04/18/2011 | 04/19/2011 | 10 | 1 | 11 |
| EDB | UG/L | 05-MW-039 | 1104084-06 | NM | 04/06/2011 | 04/11/2011 | 04/13/2011 | 5 | 2 | 7 |
| OV | MG/KG | 05-SS-048-0204 | 1104107-05 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-049-0204 | 1104107-06RE1 | NM | 04/08/2011 | 04/14/2011 | 04/14/2011 | 6 | 0 | 6 |
| OV | MG/KG | 05-SS-047-0204 | 1104107-04 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-046-0204 | 1104107-03 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-045-0204-D | 1104107-02 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-045-0204 | 1104107-01 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-044-0204 | 1104084-11 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | MG/KG | 05-SS-042-0204 | 1104084-09 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-041-0204 | 1104084-08 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-040-0204 | 1104084-07 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-039-0204 | 1104084-05 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-038-0204 | 1104084-04 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-037-0204 | 1104084-03 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-037-0204-D | 1104084-02 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-050-0204 | 1104107-07 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| OV | MG/KG | 05-SS-043-0204 | 1104084-10 | NM | 04/06/2011 | 04/11/2011 | 04/11/2011 | 5 | 0 | 5 |
| OV | UG/L | 05-MW-039 | 1104084-06 | NM | 04/06/2011 | 04/15/2011 | 04/15/2011 | 9 | 0 | 9 |
| OV | UG/L | Trip Blank #9476 | 1104084-01 | NM | 04/06/2011 | 04/15/2011 | 04/15/2011 | 9 | 0 | 9 |
| OV | UG/L | EQUIP BLANK 05 | 1104107-09 | NM | 04/08/2011 | 04/15/2011 | 04/16/2011 | 7 | 1 | 8 |
| OV | UG/L | 05-MW-049 | 1104107-10 | NM | 04/08/2011 | 04/15/2011 | 04/16/2011 | 7 | 1 | 8 |
| OV | UG/L | TRIP BLANK #9477 | 1104107-11 | NM | 04/08/2011 | 04/15/2011 | 04/15/2011 | 7 | 0 | 7 |
| OV | UG/L | EQUIP BLANK 04 | 1104107-08 | NM | 04/08/2011 | 04/15/2011 | 04/15/2011 | 7 | 0 | 7 |
| SIM | MG/KG | 05-SS-039-0204 | 1104084-05 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-041-0204 | 1104084-08 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-042-0204 | 1104084-09 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-041-0204 | 1104084-08 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-040-0204 | 1104084-07 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-040-0204 | 1104084-07 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-039-0204 | 1104084-05 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-038-0204 | 1104084-04 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-038-0204 | 1104084-04 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-037-0204-D | 1104084-02 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-037-0204-D | 1104084-02 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-037-0204 | 1104084-03 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-043-0204 | 1104084-10 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-043-0204 | 1104084-10 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-037-0204 | 1104084-03 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-047-0204 | 1104107-04 | NM | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-042-0204 | 1104084-09 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-050-0204 | 1104107-07 | SUR | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-050-0204 | 1104107-07 | NM | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-049-0204 | 1104107-06 | SUR | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-049-0204 | 1104107-06 | NM | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-048-0204 | 1104107-05 | SUR | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-047-0204 | 1104107-04 | SUR | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-046-0204 | 1104107-03 | SUR | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-046-0204 | 1104107-03 | NM | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-045-0204-D | 1104107-02 | SUR | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-045-0204-D | 1104107-02 | NM | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-045-0204 | 1104107-01 | SUR | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-045-0204 | 1104107-01 | NM | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | MG/KG | 05-SS-044-0204 | 1104084-11 | SUR | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-044-0204 | 1104084-11 | NM | 04/06/2011 | 04/18/2011 | 04/23/2011 | 12 | 5 | 17 |
| SIM | MG/KG | 05-SS-048-0204 | 1104107-05 | NM | 04/08/2011 | 04/19/2011 | 04/23/2011 | 11 | 4 | 15 |
| SIM | UG/L | EQUIP BLANK 04 | 1104107-08 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| SIM | UG/L | EQUIP BLANK 04 | 1104107-08 | SUR | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| SIM | UG/L | EQUIP BLANK 05 | 1104107-09 | SUR | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| SIM | UG/L | 05-MW-049 | 1104107-10 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| SIM | UG/L | 05-MW-039 | 1104084-06 | SUR | 04/06/2011 | 04/11/2011 | 04/14/2011 | 5 | 3 | 8 |
| SIM | UG/L | 05-MW-039 | 1104084-06 | NM | 04/06/2011 | 04/11/2011 | 04/14/2011 | 5 | 3 | 8 |
| SIM | UG/L | 05-MW-049 | 1104107-10 | SUR | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | UG/L | EQUIP BLANK 05 | 1104107-09 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |
| TPH | MG/KG | 05-SS-042-0204 | 1104084-09 | NM | 04/06/2011 | 04/18/2011 | 04/20/2011 | 12 | 2 | 14 |
| TPH | MG/KG | 05-SS-050-0204 | 1104107-07 | NM | 04/08/2011 | 04/13/2011 | 04/15/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-049-0204 | 1104107-06 | NM | 04/08/2011 | 04/13/2011 | 04/15/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-048-0204 | 1104107-05 | NM | 04/08/2011 | 04/13/2011 | 04/15/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-047-0204 | 1104107-04 | NM | 04/08/2011 | 04/13/2011 | 04/15/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-046-0204 | 1104107-03 | NM | 04/08/2011 | 04/13/2011 | 04/15/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-045-0204-D | 1104107-02 | NM | 04/08/2011 | 04/13/2011 | 04/15/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-045-0204 | 1104107-01 | NM | 04/08/2011 | 04/13/2011 | 04/15/2011 | 5 | 2 | 7 |
| TPH | MG/KG | 05-SS-043-0204 | 1104084-10 | NM | 04/06/2011 | 04/18/2011 | 04/20/2011 | 12 | 2 | 14 |
| TPH | MG/KG | 05-SS-041-0204 | 1104084-08 | NM | 04/06/2011 | 04/18/2011 | 04/20/2011 | 12 | 2 | 14 |
| TPH | MG/KG | 05-SS-040-0204 | 1104084-07 | NM | 04/06/2011 | 04/18/2011 | 04/20/2011 | 12 | 2 | 14 |
| TPH | MG/KG | 05-SS-039-0204 | 1104084-05 | NM | 04/06/2011 | 04/18/2011 | 04/20/2011 | 12 | 2 | 14 |
| TPH | MG/KG | 05-SS-038-0204 | 1104084-04 | NM | 04/06/2011 | 04/18/2011 | 04/19/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-037-0204-D | 1104084-02 | NM | 04/06/2011 | 04/18/2011 | 04/19/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-037-0204 | 1104084-03 | NM | 04/06/2011 | 04/18/2011 | 04/19/2011 | 12 | 1 | 13 |
| TPH | MG/KG | 05-SS-044-0204 | 1104084-11 | NM | 04/06/2011 | 04/18/2011 | 04/20/2011 | 12 | 2 | 14 |
| TPH | MG/L | EQUIP BLANK 05 | 1104107-09 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/L | 05-MW-039 | 1104084-06 | NM | 04/06/2011 | 04/11/2011 | 04/14/2011 | 5 | 3 | 8 |
| TPH | MG/L | 05-MW-049 | 1104107-10 | NM | 04/08/2011 | 04/13/2011 | 04/14/2011 | 5 | 1 | 6 |
| TPH | MG/L | EQUIP BLANK 04 | 1104107-08 | NM | 04/08/2011 | 04/13/2011 | 04/13/2011 | 5 | 0 | 5 |

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 2783 PAGE 1 OF 1

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02746 | Saufley Field Site 5 | Geoff Pope | 850 385 9899 | EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M Brock | | M. Brock | 850 294 2830 | 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 8684 5094 5611 | | Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): G G AG AG G G AG AG P
PRESERVATIVE USED: meoH H2O ice ice HCl HCl ice HCl HNO3

| DATE YEAR 2011 | 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 | BTEX MTBE (soil) | PAH (soil) | TRPH (soil) | VOCs (H2O) | EDB H2O | PAH | TRPH | Total Pb. | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4/6 | — | Trip Blank # 9476 | — | — | — | QC | G | 2 | ✓ | — | — | — | — | — | — | — | 1104084-01 ZJH4 |
| | 0825 | 05-SS-037-0204-D | SB037 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | 1m+3J6 -02 |
| | 0825 | 05-SS-037-0204 | SB037 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -03 |
| | 0905 | 05-SS-038-0204 | SB038 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -04 |
| | 0955 | 05-SS-039-0204 | SB039 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -05 |
| | 1045 | 05-MW-039 | SB039 | — | — | GW | G | 9 | — | — | — | ✓ | ✓ | ✓ | ✓ | ✓ | 2J7H5+2H+2HNY+1CJI -06 |
| | 0905 | 05-SS-038-MS 0204- | SB038 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | (Sec-02) -04 |
| | 0905 | 05-SS-038-MSD 0204- | SB038 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | |
| | 1315 | 05-SS-040-0204 | SB040 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -07 |
| | 1345 | 05-SS-041-0204 | SB041 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -08 |
| | 1415 | 05-SS-042-0204 | SB042 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | bottles did not get time on them & please use 1415 as indicated on C.O.C -09 |
| | 1820 | 05-SS-043-0204 | SB043 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -10 |
| | 1600 | 05-SS-044-0204 | SB044 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | — | — | — | — | — | -11 |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY: M Brock | 4/6/11 | 1730 | 1. RECEIVED BY | | |
| 2. RELINQUISHED BY | | | 2. RECEIVED BY | | |
| 3. RELINQUISHED BY | | | 3. RECEIVED BY: 2.4°C | 4-7-11 | 08:45 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

10

CTOJM26_006 Summ Package

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2798 | PAGE 1 OF 1

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Saufley Field Site 5 | Geoff Pope | 850385-9899 | EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER: M. Brock | PHONE NUMBER: 850-294-2830 | ADDRESS: 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER: 8684 5094 5622 | | CITY, STATE: Nashville TN 37228 |

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

| DATE YEAR 2011 | 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 | BTEX, MTBE (soil) | PAH (soil) | TRPH (soil) | VOCs (H2O) | EDB (H2O) | PAH (H2O) | TRPH (H2O) | Total Pb (H2O) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONTAINER TYPE PLASTIC (P) or GLASS (G) | | | | | | | | | CG | AG | AG | CG | CG | AG | AG | P | |
| PRESERVATIVE USED | | | | | | | | | MeOH H2O | ice | ice | HCL | HCL | ice | HCL | HNO3 | |
| 4/8 | 1140 | 05-SS-045-0204 | SB045 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| | 1140 | 05-SS-045-0204-D | SB045 | 2 | 4 | QC | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| | 1040 | Equip Blank 04 | terra core | – | – | QC | G | 9 | – | – | – | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | 1205 | Equip Blank 05 | hand auger | – | – | QC | G | 9 | – | – | – | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | 1220 | 05-SS-046-0204 | SB046 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| | 1220 | 05-SS-046-0204-MS | SB046 | 2 | 4 | QC | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| | 1220 | 05-SS-046-0204-MSD | SB046 | 2 | 4 | QC | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| | 1305 | 05-SS-047-0204 | SB047 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| | 1350 | 05-SS-048-0204 | SB048 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| | 1555 | 05-SS-049-0204 | SB049 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| | 1630 | 05-MW-049 | SB049 | @50' bls | | GW | G | 9 | – | – | – | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | 1650 | 05-SS-050-0204 | SB050 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | |
| MB | | 05-SS-051- | SB051 | | | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | – | – | MB |
| | | Trip Blank #9477 | – | – | | QC | G | 2 | ✓ | | | ✓ | | | | | |

| 1. RELINQUISHED BY | DATE | TIME | 1. RECEIVED BY | DATE | TIME |
|---|---|---|---|---|---|
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE 4-8-11 | TIME 1730 | 3. RECEIVED BY | DATE 4-9-11 | TIME 08:30 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

12

CTOJM26_006 Summ Package

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1104084 Number of Coolers: 1 of 1

Client: Tetra Tech Project: Sanfley Field

Date/Time Received: 4.7.11 0845 Date cooler(s) opened: 4.7.11

Opened By (print): Reginald Talley (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: 5611

2. Were custody seals on outside of cooler(s)? ..... (Yes) No

How many: 2 Seal date: 4.6.11 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: Initial Value: 2.7 °C Correction Factor: -0.3 °C Final Value: 2.4 °C

Dates samples were logged-in: 4-8-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: _____

CP

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1104B107 Number of Coolers: 1 of 2

Client: Tetra Tech NUS Project: Southey Field

Date/Time Received: 4.9.11 0830 Date cooler(s) opened: 4.9.11

Opened By (print): Reginald Tellez (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: 5622

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 4.8.11 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: Initial Value: 3.1 °C Correction Factor: -0.3 °C Final Value: 2.8 °C

Dates samples were logged-in: 4-12-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]

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

If Non-Conformance issues were present, list by sample ID: _____

- pH <2 for all FL/PO4 samples

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1104107 Number of Coolers: 2 of 2

Client: Tetra Tech NUS Project: Sanfley Field

Date/Time Received: 4.9.11 0830 Date cooler(s) opened: 4.9.11

Opened By (print): Reginald Talley (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: 6411

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 4.8.11 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: Initial Value: 4.5 °C Correction Factor: -0.3 °C Final Value: 4.2 °C

Dates samples were logged-in: 4-12-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: _____

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
The batch spikes associated to batch 1D15002 exceeded recovery criteria with a positive bias for Chloroethane and exceeded relative percent difference criteria for Bromomethane.

The continuing calibration verifications exceeded criteria in 1D10602-CCV1 with a positive bias for Acrolein and in 1D10603-CCV1 with a positive bias for Acrolein and Chloroethane and with a negative bias for Bromomethane.

No additional anomalies or deviations are noted and the proper data qualifiers have

been applied.

**SW8270C:**
The surrogate Terphenyl-d14 exceeded criteria with a negative bias in sample 1104107-10.

The internal standard Perylene-d12 exceeded criteria with a negative bias in 1D13011-BS1.

The method blank 1D13011-BLK1 has a positive result for Benzo(a)anthracene; however, no positive results were detected in the associated samples.

The batch spikes associated to batch 1D13011 exceeded relative percent difference criteria for Anthracene, Benzo(g,h,i)perylene, Fluorene, 1-Methylnaphthalene, and 2-Methylnaphthalene.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
The surrogate o-Terphenyl exceeded criteria with a negative bias in 1D11006-BLK1, -BS1, -BSD1, and 1104084-06. Recoveries were within laboratory limits and spike recoveries were within limits in spite of low surrogate recovery. The surrogates 2-Fluorobiphenyl and o-Terphenyl exceeded criteria with a positive bias in 1104107-08, -09, 1D13010-BLK1, -BS1, and -BSD1 most likely due to being double spiked.

The method blank 1D13010-BLK1 has a positive result for Petroleum Range Organics.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8011:**
Sample 1104084-06 and batch QC associated to batch 1D09902 were reported only from column 2 due to instrument issues on column 1 and no positive results on column 2 that needed to be confirmed.

The continuing calibration verifications 1D11037-CCV1, -CCV2, and –CCV3 exceeded criteria on column 2 with a positive bias for 1,2-Dibromoethane.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW6010C:**
No anomalies or deviations are noted.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

## Analytical Report Terms and Qualifiers

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.1 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.1 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.1 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*****: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE**" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Organic Calculations:

**GC/MS Volatiles**

$$\text{Final Concentration} = \frac{\text{On-column(ug/L or ug/Kg)} * \text{Expected Vol/Weight (mL or g)} * \text{Dilution}}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

***Note - Expected Vol/Weight value is found in "Final Vol" column of Preparation Batch Summary.***

**GC/MS Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/uL)} * \text{Final Vol (ml)} * \text{Dilution} *(1000\text{uL/mL})}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g
= ug/L or ug/kg

**GC or LC Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/mL)} * \text{Final Vol (mL)} * \text{Dilution}}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g
= ug/L or ug/kg

# HOLDING TIME SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| Trip Blank #9476 | 04/06/11 00:00 | 04/07/11 08:45 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 10:57 | 9.50 | 14.00 | |
| 05-SS-037-0204-D | 04/06/11 08:25 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 15:39 | 5.34 | 14.00 | |
| 05-SS-037-0204 | 04/06/11 08:25 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 16:05 | 5.36 | 14.00 | |
| 05-SS-038-0204 | 04/06/11 09:05 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 14:11 | 5.25 | 14.00 | |
| 05-SS-039-0204 | 04/06/11 09:55 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 16:31 | 5.32 | 14.00 | |
| 05-MW-039 | 04/06/11 10:45 | 04/07/11 08:45 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 12:55 | 9.13 | 14.00 | |
| 05-SS-040-0204 | 04/06/11 13:15 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 16:56 | 5.20 | 14.00 | |
| 05-SS-041-0204 | 04/06/11 13:45 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 17:22 | 5.19 | 14.00 | |
| 05-SS-042-0204 | 04/06/11 14:15 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 17:47 | 5.19 | 14.00 | |
| 05-SS-043-0204 | 04/06/11 15:20 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 14:37 | 5.01 | 14.00 | |
| 05-SS-044-0204 | 04/06/11 16:00 | 04/07/11 08:45 | 04/11/11 00:00 | N/A | 14.00 | 04/11/11 15:03 | 5.00 | 14.00 | |
| 05-SS-045-0204 | 04/08/11 11:40 | 04/09/11 08:30 | 04/13/11 00:00 | N/A | 14.00 | 04/13/11 13:11 | 5.10 | 14.00 | |
| 05-SS-045-0204-D | 04/08/11 11:40 | 04/09/11 08:30 | 04/13/11 00:00 | N/A | 14.00 | 04/13/11 13:36 | 5.12 | 14.00 | |
| 05-SS-046-0204 | 04/08/11 12:20 | 04/09/11 08:30 | 04/13/11 00:00 | N/A | 14.00 | 04/13/11 14:00 | 5.11 | 14.00 | |
| 05-SS-047-0204 | 04/08/11 13:05 | 04/09/11 08:30 | 04/13/11 00:00 | N/A | 14.00 | 04/13/11 14:25 | 5.10 | 14.00 | |
| 05-SS-048-0204 | 04/08/11 13:50 | 04/09/11 08:30 | 04/13/11 00:00 | N/A | 14.00 | 04/13/11 14:50 | 5.08 | 14.00 | |
| 05-SS-049-0204 | 04/08/11 15:55 | 04/09/11 08:30 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 10:25 | 5.81 | 14.00 | |
| 05-SS-050-0204 | 04/08/11 16:50 | 04/09/11 08:30 | 04/13/11 00:00 | N/A | 14.00 | 04/13/11 15:40 | 4.99 | 14.00 | |
| EQUIP BLANK 04 | 04/08/11 10:40 | 04/09/11 08:30 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 23:47 | 7.59 | 14.00 | |
| EQUIP BLANK 05 | 04/08/11 12:05 | 04/09/11 08:30 | 04/15/11 00:00 | N/A | 14.00 | 04/16/11 00:16 | 7.55 | 14.00 | |
| 05-MW-049 | 04/08/11 16:38 | 04/09/11 08:30 | 04/15/11 00:00 | N/A | 14.00 | 04/16/11 00:46 | 7.38 | 14.00 | |
| TRIP BLANK #9477 | 04/08/11 00:00 | 04/09/11 08:30 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 23:17 | 8.01 | 14.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Sequence: 1D09707

Calibration: 1098001

SDG: CTOJM26_006

Project: NAS Pensacola CTO JM26 Saufley

Instrument: MS-VOA3

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D09707-TUN1 | 0407TUN1.D | 04/07/11 07:50 |
| Cal Standard | 1D09707-CAL1 | 0407CAL1.D | 04/07/11 08:52 |
| Cal Standard | 1D09707-CAL2 | 0407CAL2.D | 04/07/11 09:16 |
| Cal Standard | 1D09707-CAL3 | 0407CAL3.D | 04/07/11 09:43 |
| Cal Standard | 1D09707-CAL4 | 0407CAL4.D | 04/07/11 10:08 |
| Cal Standard | 1D09707-CAL5 | 0407CAL5.D | 04/07/11 10:33 |
| Cal Standard | 1D09707-CAL6 | 0407CAL6.D | 04/07/11 10:59 |
| Cal Standard | 1D09707-CAL7 | 0407CAL7.D | 04/07/11 11:24 |
| Cal Standard | 1D09707-CAL8 | 0407CAL8.D | 04/07/11 11:49 |
| Initial Cal Check | 1D09707-ICV1 | 0407ICV1.D | 04/07/11 12:14 |
| Cal Standard | 1D09707-CAL9 | 0407CAL9.D | 04/07/11 13:04 |
| Cal Standard | 1D09707-CALA | 0407CALA.D | 04/07/11 13:29 |
| Cal Standard | 1D09707-CALB | 0407CALB.D | 04/07/11 13:55 |
| Cal Standard | 1D09707-CALC | 0407CALC.D | 04/07/11 14:20 |
| Cal Standard | 1D09707-CALD | 0407CALD.D | 04/07/11 14:46 |
| Cal Standard | 1D09707-CALE | 0407CALE.D | 04/07/11 15:12 |
| Cal Standard | 1D09707-CALF | 0407CALF.D | 04/07/11 15:39 |
| Cal Standard | 1D09707-CALG | 0407CALG.D | 04/07/11 16:05 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0407TUN1.D | Injection Date: | 04/07/11 |
| Instrument ID: | MS-VOA3 | Injection Time: | 07:50 |
| Sequence: | 1D09707 | Lab Sample ID: | 1D09707-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 21.6 | PASS |
| 75 | 30 - 60% of 95 | 59.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.79 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 90.3 | PASS |
| 175 | 5 - 9% of 174 | 7.12 | PASS |
| 176 | 95 - 101% of 174 | 99.6 | PASS |
| 177 | 5 - 9% of 176 | 6.87 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1098001

Instrument: MS-~~VOA3~~

Matrix: Water

Calibration Dates: 4/7/11 8:52 4/7/11 16:05

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 9.273569E-02 | 23.78956 | 3.557625 | 0.4812903 | 0.9974967 | | 0.995 | |
| Acrolein | 3.943217E-02 | 6.206828 | 3.453875 | 0.1101072 | | | 15 | |
| Acrylonitrile | 5.654244E-02 | 7.231812 | 4.40375 | 0.1454928 | | | 15 | |
| Benzene | 1.16467 | 6.046892 | 7.52075 | 3.776339E-02 | | | 15 | |
| Bromobenzene | 0.7408969 | 6.450007 | 12.31025 | 4.649713E-03 | | | 15 | |
| Bromochloromethane | 0.1532505 | 3.464416 | 6.601 | 9.090393E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.8817864 | 4.983549 | 7.71575 | 4.068823E-02 | | | 15 | |
| Bromodichloromethane | 0.4824739 | 4.313864 | 8.518 | 0.0382832 | | | 15 | |
| Bromoform | 0.4488197 | 22.46336 | 11.71275 | 2.715549E-02 | 0.9985417 | | SPCC (0.1) | |
| Bromomethane | 0.2686106 | 16.87378 | 2.6485 | 0.1601826 | 0.9969823 | | 0.995 | |
| Bromofluorobenzene | 0.9061622 | 3.024999 | 12.147 | 1.964541E-02 | | | 15 | |
| n-Butylbenzene | 2.623232 | 13.22344 | 13.753 | 1.432504E-02 | | | 15 | |
| 2-Butanone | 0.1004495 | 8.030024 | 6.04275 | 0.2111767 | | | 15 | |
| sec-Butylbenzene | 2.936148 | 10.60541 | 13.21038 | 1.830295E-02 | | | 15 | |
| tert-Butylbenzene | 2.315948 | 6.784996 | 12.974 | 8.671786E-03 | | | 15 | |
| Carbon disulfide | 0.8457565 | 3.38181 | 4.5865 | 9.149846E-02 | | | 15 | |
| Carbon tetrachloride | 0.6129204 | 7.564082 | 7.487 | 4.134197E-02 | | | 15 | |
| Chlorobenzene | 1.682085 | 3.193786 | 10.982 | 3.189471E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.2422917 | 8.437835 | 2.7795 | 0.1002855 | | | 15 | |
| Chloroform | 0.6940876 | 9.605399 | 6.574 | 5.149858E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 9.657054E-02 | 6.916339 | 8.88525 | 2.491364E-02 | | | 15 | |
| Chloromethane | 0.4226012 | 7.673714 | 2.073 | 0.119563 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.725889 | 2.99242 | 10.95113 | 3.192195E-02 | | | 15 | |
| 2-Chlorotoluene | 1.962353 | 9.398586 | 12.536 | 1.671093E-02 | | | 15 | |
| 4-Chlorotoluene | 2.328042 | 11.99968 | 12.597 | 2.017071E-02 | | | 15 | |
| Cyclohexane | 0.4755489 | 5.122703 | 7.42075 | 2.557201E-02 | | | 15 | |
| Dibromochloromethane | 0.627222 | 14.88791 | 10.20525 | 2.492352E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.127354 | 12.39733 | 14.35757 | 2.295983E-02 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5255533 | 6.901283 | 10.42125 | 3.114959E-02 | | | 15 | |
| Dibromomethane | 0.1943155 | 7.500089 | 8.45325 | 0.0241117 | | | 15 | |
| 1,2-Dichlorobenzene | 1.333166 | 5.119323 | 13.71 | 1.739511E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.426953 | 7.685419 | 13.297 | 1.609497E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.434176 | 8.671343 | 13.388 | 0.0197992 | | | 15 | |
| Dichlorodifluoromethane | 0.6517199 | 6.450117 | 1.86575 | 2.574976E-02 | | | 15 | |
| 1,1-Dichloroethane | 0.6121258 | 4.952345 | 5.5965 | 0.1101457 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.5696288 | 8.959063 | 7.34625 | 3.406706E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2580088 | 6.147562 | 4.0435 | 0.1689419 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3246293 | 4.156187 | 6.31825 | 2.679889E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2993316 | 2.540903 | 5.216375 | 8.900234E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.3119805 | 3.016225 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2913283 | 2.13134 | 8.3385 | 5.786728E-03 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8686854 | 2.553062 | 9.94775 | 3.532846E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.6576522 | 8.502925 | 6.42725 | 3.260231E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.5081727 | 4.21373 | 7.36575 | 5.188963E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.5201297 | 3.27948 | 9.099 | 1.095346E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.9102976 | 4.624339 | 9.579 | 2.269924E-02 | | | 15 | |
| 1,3-Dichloropropene (total) | 0.4986211 | 3.513818 | 9.579 | 2.269924E-02 | | | 15 | |
| Diisopropyl Ether | 0.8825551 | 3.52987 | 5.97125 | 8.572926E-02 | | | 15 | |
| Ethylbenzene | 3.069908 | 7.233922 | 11.131 | 1.756359E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.9310685 | 4.949541 | 6.4465 | 5.484808E-02 | | | 15 | |
| Ethyl Methacrylate | 0.6653773 | 7.989188 | 9.7725 | 3.319728E-02 | | | 15 | |
| Hexachlorobutadiene | 1.017766 | 7.131152 | 15.72925 | 2.025986E-02 | | | 15 | |
| 2-Hexanone | 0.3182417 | 8.747284 | 9.88325 | 3.707498E-02 | | | 15 | |
| Iodomethane | 0.4152491 | 7.714461 | 4.23725 | 0.176826 | | | 15 | |
| Isopropylbenzene | 2.763773 | 5.258317 | 12.037 | 1.617367E-02 | | | 15 | |
| p-Isopropyltoluene | 2.572808 | 9.711163 | 13.34888 | 2.188847E-02 | | | 15 | |
| Methylene chloride | 0.2973694 | 6.693931 | 4.5315 | 0.1380901 | | | 15 | |
| Methyl Acetate | 0.1480604 | 10.80932 | 4.39225 | 0.1249349 | | | 15 | |
| Methylcyclohexane | 0.5480295 | 3.203511 | 8.67225 | 1.254932E-02 | | | 15 | |
| Naphthalene | 1.989332 | 4.772749 | 15.596 | 1.818542E-02 | | | 15 | |
| Methyl Methacrylate | 0.2356836 | 2.736676 | 8.478125 | 1.293236E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.214164 | 9.938848 | 9.02225 | 7.774029E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.8668359 | 3.789627 | 5.206875 | 9.073631E-02 | | | 15 | |
| n-Propylbenzene | 3.070391 | 14.56901 | 12.451 | 1.063587E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1098001 | Instrument: | MS-VOA3 | |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 | 4/7/11 16:05 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Styrene | 1.854686 | 6.130505 | 11.6075 | 2.869686E-02 | | | 15 | |
| 1,1,2,2-Tetrachloroethane | 0.5076466 | 5.878274 | 11.96325 | 9.490145E-03 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6710617 | 6.952831 | 11.02638 | 2.601867E-02 | | | 15 | |
| ~~tert-Butyl alcohol~~ | ~~2.923212E-02~~ | 8.766388 | 4.179375 | 0.2449243 | | | 15 | |
| Tetrachloroethene | 0.885801 | 2.596186 | 10.3205 | 3.075004E-02 | | | 15 | |
| Toluene | 1.460308 | 3.73232 | 9.579 | 2.269924E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 1.163279 | 4.993702 | 15.882 | 1.814574E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 1.28027 | 6.300258 | 15.444 | 1.875089E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.3982202 | 5.553079 | 9.73425 | 3.209655E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.7065149 | 6.581424 | 7.14525 | 3.186659E-02 | | | 15 | |
| Tetrahydrofuran | 6.141022E-02 | 9.136534 | 6.78625 | 0.0549285 | | | 15 | |
| Trichloroethene | 0.3684331 | 5.375719 | 8.28925 | 2.284192E-02 | | | 15 | |
| Trichlorofluoromethane | 0.8514469 | 7.990218 | 3.2695 | 0.2130464 | | | 15 | |
| 1,2,3-Trichloropropane | 0.2120685 | 8.366005 | 12.08675 | 3.325913E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.296674 | 10.11605 | 12.62787 | 2.767864E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 2.340893 | 9.67552 | 13.005 | 2.239743E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.3234307 | 4.597131 | 4.125125 | 0.115758 | | | 15 | |
| Vinyl chloride | 0.4550361 | 8.134682 | 2.218125 | 1.780304E-02 | | | CCC (20) | |
| m,p-Xylene | 2.380657 | 13.02929 | 11.24538 | 1.067353E-02 | | | 15 | |
| o-Xylene | 2.622629 | 6.184545 | 11.636 | 1.875634E-02 | | | 15 | |
| Vinyl acetate | 0.2657437 | 2.681565 | 5.67175 | 8.157733E-02 | | | 15 | |
| Xylenes (total) | 2.461315 | 10.48546 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3035453 | 4.543112 | 6.745625 | 0.1658708 | | | 15 | |
| 1,2-Dichloroethane-d4 | 5.246396E-02 | 5.408551 | 7.251375 | 0.1273443 | | | 15 | |
| Toluene-d8 | 2.05327 | 3.420979 | 9.497875 | 4.871304E-02 | | | 15 | |
| ~~tert-Amyl alcohol~~ | ~~2.183314E-02~~ | 14.46274 | 6.951125 | 1.615039E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.7586887 | 4.270504 | 8.61125 | 1.552643E-02 | | | 15 | |

# INITIAL CALIBRATION DATA

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1098001
Instrument: MS-VOA3
Matrix: Water
Calibration Dates: 4/7/11 8:52 4/7/11 16:05

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 10 | 4.229712E-02 | 25.01 | 3.747174E-02 | 50.02 | 3.885359E-02 | 100 | 3.911476E-02 | 250.1 | 3.655994E-02 | 500.2 | 3.831175E-02 |
| Acrylonitrile | 9.996 | 5.564378E-02 | 24.99 | 4.997619E-02 | 49.98 | 6.029115E-02 | 99.96 | 5.582825E-02 | 249.9 | 5.520576E-02 | 499.8 | 5.544425E-02 |
| Benzene | 2 | 1.207229 | 5 | 1.22931 | 10 | 1.240465 | 20 | 1.191632 | 50 | 1.17622 | 100 | 1.139033 |
| Bromobenzene | 2 | 0.83258 | 5 | 0.7744565 | 10 | 0.7553132 | 20 | 0.7309472 | 50 | 0.7446456 | 100 | 0.7066598 |
| Bromochloromethane | 2 | 0.1441757 | 5 | 0.1558489 | 10 | 0.1504338 | 20 | 0.1630692 | 50 | 0.1532809 | 100 | 0.1517253 |
| Tert-Amyl Methyl Ether | 2 | 0.7954845 | 5 | 0.879098 | 10 | 0.9302103 | 20 | 0.9187418 | 50 | 0.9059061 | 100 | 0.9036798 |
| Bromodichloromethane | 2 | 0.4750749 | 5 | 0.4527672 | 10 | 0.4988116 | 20 | 0.4918132 | 50 | 0.5044988 | 100 | 0.498613 |
| Bromoform | 2 | 0.2945489 | 5 | 0.3496692 | 10 | 0.3886242 | 20 | 0.4186633 | 50 | 0.4897312 | 100 | 0.5339304 |
| Bromomethane | 2 | 0.2169637 | 5 | 0.2339641 | 10 | 0.2179127 | 20 | 0.2501105 | 50 | 0.2769517 | 100 | 0.3141651 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 2 | 3.007581 | 5 | 2.919554 | 10 | 2.782914 | 20 | 2.74505 | 50 | 2.789248 | 100 | 2.472659 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 2 | 3.143175 | 5 | 3.202393 | 10 | 3.153001 | 20 | 3.035242 | 50 | 3.109506 | 100 | 2.899918 |
| tert-Butylbenzene | 2 | 2.436424 | 5 | 2.397935 | 10 | 2.443946 | 20 | 2.358098 | 50 | 2.440013 | 100 | 2.282416 |
| Carbon disulfide | 2 | 0.808013 | 5 | 0.8030968 | 10 | 0.8539845 | 20 | 0.8368244 | 50 | 0.8785377 | 100 | 0.877508 |
| Carbon tetrachloride | 2 | 0.5216268 | 5 | 0.6185114 | 10 | 0.6348978 | 20 | 0.6279581 | 50 | 0.6602373 | 100 | 0.6532617 |
| Chlorobenzene | 2 | 1.730557 | 5 | 1.728078 | 10 | 1.64093 | 20 | 1.690159 | 50 | 1.755591 | 100 | 1.678027 |
| Chloroethane | 2 | 0.2248493 | 5 | 0.2194882 | 10 | 0.2366109 | 20 | 0.2246125 | 50 | 0.2430003 | 100 | 0.2537456 |
| Chloroform | 2 | 0.8023138 | 5 | 0.7305213 | 10 | 0.7333844 | 20 | 0.7095911 | 50 | 0.6929878 | 100 | 0.665979 |
| 2-Chloroethyl vinyl ether | 3.99 | 8.615828E-02 | 9.975 | 0.0879221 | 19.95 | 0.1037547 | 39.9 | 9.407995E-02 | 99.75 | 9.876422E-02 | 199.5 | 9.925371E-02 |
| Chloromethane | 2 | 0.3892671 | 5 | 0.3828344 | 10 | 0.4265399 | 20 | 0.405824 | 50 | 0.4362802 | 100 | 0.4731172 |
| 1-Chlorohexane | 2.004 | 1.774718 | 5.01 | 1.705273 | 10.02 | 1.797358 | 20.04 | 1.688 | 50.1 | 1.767449 | 100.2 | 1.736406 |
| 2-Chlorotoluene | 2 | 2.10439 | 5 | 2.178913 | 10 | 2.095607 | 20 | 2.010313 | 50 | 2.022035 | 100 | 1.874118 |
| 4-Chlorotoluene | 2 | 2.779161 | 5 | 2.479469 | 10 | 2.479041 | 20 | 2.420399 | 50 | 2.361406 | 100 | 2.140222 |
| Cyclohexane | 2 | 0.5209389 | 5 | 0.494492 | 10 | 0.4739587 | 20 | 0.4638516 | 50 | 0.4875164 | 100 | 0.4635264 |
| Dibromochloromethane | 2 | 0.5374317 | 5 | 0.4849711 | 10 | 0.5972269 | 20 | 0.5639118 | 50 | 0.6871922 | 100 | 0.7026104 |
| 1,2-Dibromo-3-chloropropane | 2 | 0.1058314 | 5 | 0.1160748 | 10 | 0.116918 | 20 | 0.1270746 | 50 | 0.1314557 | 100 | 0.1482032 |
| 1,2-Dibromoethane (EDB) | 2 | 0.5407285 | 5 | 0.4453085 | 10 | 0.5543363 | 20 | 0.5137108 | 50 | 0.5364553 | 100 | 0.531758 |
| Dibromomethane | 2 | 0.1663831 | 5 | 0.205022 | 10 | 0.2123068 | 20 | 0.2035304 | 50 | 0.1962305 | 100 | 0.1997182 |
| 1,2-Dichlorobenzene | 2 | 1.40557 | 5 | 1.360568 | 10 | 1.395932 | 20 | 1.341586 | 50 | 1.379826 | 100 | 1.296152 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 2 | 1.543765 | 5 | 1.541556 | 10 | 1.512666 | 20 | 1.432913 | 50 | 1.460706 | 100 | 1.353923 |
| 1,4-Dichlorobenzene | 2 | 1.648914 | 5 | 1.544492 | 10 | 1.476807 | 20 | 1.413455 | 50 | 1.441708 | 100 | 1.361738 |
| Dichlorodifluoromethane | 2 | 0.644283 | 5 | 0.6400736 | 10 | 0.645708 | 20 | 0.6694915 | 50 | 0.6915626 | 100 | 0.700498 |
| 1,1-Dichloroethane | 2 | 0.6599804 | 5 | 0.6209094 | 10 | 0.6367528 | 20 | 0.6119975 | 50 | 0.6175294 | 100 | 0.605623 |
| 1,2-Dichloroethane | 2 | 0.5548641 | 5 | 0.6103974 | 10 | 0.6283161 | 20 | 0.6035696 | 50 | 0.5945157 | 100 | 0.5684441 |
| 1,1-Dichloroethene | 2 | 0.2825048 | 5 | 0.251807 | 10 | 0.2334801 | 20 | 0.2405008 | 50 | 0.2620618 | 100 | 0.2587362 |
| cis-1,2-Dichloroethene | 2 | 0.3461053 | 5 | 0.345289 | 10 | 0.3221272 | 20 | 0.3181568 | 50 | 0.3218282 | 100 | 0.318326 |
| trans-1,2-Dichloroethene | 2 | 0.311001 | 5 | 0.2990325 | 10 | 0.2945654 | 20 | 0.3087415 | 50 | 0.3004507 | 100 | 0.2988509 |
| 1,2-Dichloroethene (total) | 4 | 0.3285531 | 10 | 0.3221607 | 20 | 0.3083463 | 40 | 0.3134492 | 100 | 0.3111394 | 200 | 0.3085884 |
| 1,2-Dichloropropane | 2 | 0.2870495 | 5 | 0.2982984 | 10 | 0.2967152 | 20 | 0.2873702 | 50 | 0.289045 | 100 | 0.2993541 |
| 1,3-Dichloropropane | 2 | 0.9013084 | 5 | 0.837814 | 10 | 0.8799667 | 20 | 0.8436167 | 50 | 0.8898658 | 100 | 0.8631042 |
| 2,2-Dichloropropane | 2 | 0.7494976 | 5 | 0.6747317 | 10 | 0.6822301 | 20 | 0.6583782 | 50 | 0.6716555 | 100 | 0.6543719 |
| 1,1-Dichloropropene | 2 | 0.5014338 | 5 | 0.5299723 | 10 | 0.5197764 | 20 | 0.5196575 | 50 | 0.5196457 | 100 | 0.5146685 |
| cis-1,3-Dichloropropene | 2 | 0.497749 | 5 | 0.5213493 | 10 | 0.526658 | 20 | 0.508432 | 50 | 0.5453645 | 100 | 0.5358516 |
| trans-1,3-Dichloropropene | 2 | 0.8824693 | 5 | 0.8434748 | 10 | 0.8814601 | 20 | 0.8953845 | 50 | 0.9722228 | 100 | 0.9497418 |
| 1,3-Dichloropropene (total) | 4 | 0.4790177 | 10 | 0.4830796 | 20 | 0.5003261 | 40 | 0.496461 | 100 | 0.5244068 | 200 | 0.5199288 |
| Diisopropyl Ether | 2 | 0.8864756 | 5 | 0.9195308 | 10 | 0.9047119 | 20 | 0.9044269 | 50 | 0.8883824 | 100 | 0.8825782 |
| Ethylbenzene | 2 | 3.338802 | 5 | 3.259514 | 10 | 3.134683 | 20 | 3.068334 | 50 | 3.210413 | 100 | 3.037741 |
| Ethyl tert-Butyl Ether | 2 | 0.9472756 | 5 | 0.9398402 | 10 | 1.008632 | 20 | 0.9246662 | 50 | 0.9512256 | 100 | 0.9351556 |
| Ethyl Methacrylate | 2 | 0.6092085 | 5 | 0.5768242 | 10 | 0.6602113 | 20 | 0.6661157 | 50 | 0.6830061 | 100 | 0.7005592 |
| Hexachlorobutadiene | 2 | 1.024458 | 5 | 1.122208 | 10 | 1.058326 | 20 | 1.004383 | 50 | 1.070865 | 100 | 1.016661 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 2 | 0.3572826 | 5 | 0.384743 | 10 | 0.4021292 | 20 | 0.4140524 | 50 | 0.4368811 | 100 | 0.4367796 |
| Isopropylbenzene | 2 | 2.728275 | 5 | 2.719494 | 10 | 2.755888 | 20 | 2.749133 | 50 | 3.019143 | 100 | 2.883314 |
| p-Isopropyltoluene | 2 | 2.807047 | 5 | 2.754545 | 10 | 2.716511 | 20 | 2.67505 | 50 | 2.713479 | 100 | 2.481903 |
| Methylene chloride | 2 | 0.3372862 | 5 | 0.3190287 | 10 | 0.2850461 | 20 | 0.2943269 | 50 | 0.2860462 | 100 | 0.2877618 |
| Methyl Acetate | 2 | 0.1807048 | 5 | 0.1424887 | 10 | 0.1614219 | 20 | 0.1431889 | 50 | 0.1313073 | 100 | 0.1376264 |
| Methylcyclohexane | 2 | 0.5695543 | 5 | 0.5258321 | 10 | 0.5722725 | 20 | 0.5479557 | 50 | 0.5522229 | 100 | 0.5507992 |
| Naphthalene | 2 | 1.915795 | 5 | 1.917909 | 10 | 2.016325 | 20 | 2.034297 | 50 | 2.160221 | 100 | 2.059409 |
| Methyl Methacrylate | 2 | 0.2394167 | 5 | 0.2273085 | 10 | 0.2393858 | 20 | 0.2278864 | 50 | 0.2399158 | 100 | 0.2447438 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Methyl t-Butyl Ether | 2 | 0.8847315 | 5 | 0.835817 | 10 | 0.9119441 | 20 | 0.8986869 | 50 | 0.8837668 | 100 | 0.8618558 |
| n-Propylbenzene | 2 | 3.519853 | 5 | 3.590456 | 10 | 3.340769 | 20 | 3.183368 | 50 | 3.15696 | 100 | 2.850106 |
| Styrene | 2 | 1.664338 | 5 | 1.816851 | 10 | 1.780746 | 20 | 1.78323 | 50 | 1.995477 | 100 | 1.981672 |
| 1,1,2,2-Tetrachloroethane | 2 | 0.4772646 | 5 | 0.5416825 | 10 | 0.5529539 | 20 | 0.5302996 | 50 | 0.48918 | 100 | 0.4849503 |
| 1,1,1,2-Tetrachloroethane | 2 | 0.6294134 | 5 | 0.6147793 | 10 | 0.6396828 | 20 | 0.6280387 | 50 | 0.7215736 | 100 | 0.7129602 |
| tert-Butyl alcohol | 10 | 2.766091E-02 | 25 | 2.572196E-02 | 50 | 0.0314773 | 100 | 2.845526E-02 | 250 | 2.914062E-02 | 500 | 2.881637E-02 |
| Tetrachloroethene | 2 | 0.9292373 | 5 | 0.8921018 | 10 | 0.8971778 | 20 | 0.8494321 | 50 | 0.889916 | 100 | 0.8770677 |
| Toluene | 2 | 1.553847 | 5 | 1.505879 | 10 | 1.401847 | 20 | 1.399446 | 50 | 1.497661 | 100 | 1.448724 |
| 1,2,3-Trichlorobenzene | 2 | 1.180348 | 5 | 1.201532 | 10 | 1.211096 | 20 | 1.167767 | 50 | 1.220788 | 100 | 1.158355 |
| 1,2,4-Trichlorobenzene | 2 | 1.39086 | 5 | 1.281143 | 10 | 1.329472 | 20 | 1.288792 | 50 | 1.340046 | 100 | 1.274004 |
| 1,1,2-Trichloroethane | 2 | 0.3506423 | 5 | 0.3986303 | 10 | 0.4022532 | 20 | 0.3939775 | 50 | 0.4158394 | 100 | 0.4126802 |
| 1,1,1-Trichloroethane | 2 | 0.7065569 | 5 | 0.7439206 | 10 | 0.7552082 | 20 | 0.7202457 | 50 | 0.7396902 | 100 | 0.704845 |
| Tetrahydrofuran | 2 | 7.384431E-02 | 5 | 5.845189E-02 | 10 | 5.777157E-02 | 20 | 0.0610646 | 50 | 5.637856E-02 | 100 | 5.975786E-02 |
| Trichloroethene | 2 | 0.4019184 | 5 | 0.3833727 | 10 | 0.3621511 | 20 | 0.3790643 | 50 | 0.3659478 | 100 | 0.3621126 |
| Trichlorofluoromethane | 2 | 0.8235139 | 5 | 0.8882201 | 10 | 0.9138551 | 20 | 0.8772508 | 50 | 0.8963849 | 100 | 0.8997653 |
| 1,2,3-Trichloropropane | 2 | 0.1742614 | 5 | 0.2097829 | 10 | 0.2294715 | 20 | 0.2051958 | 50 | 0.2143764 | 100 | 0.2151771 |
| 1,3,5-Trimethylbenzene | 2 | 2.555602 | 5 | 2.439073 | 10 | 2.406397 | 20 | 2.39666 | 50 | 2.44156 | 100 | 2.212395 |
| 1,2,4-Trimethylbenzene | 2 | 2.472625 | 5 | 2.499481 | 10 | 2.512797 | 20 | 2.456873 | 50 | 2.487789 | 100 | 2.277505 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 2 | 0.3224977 | 5 | 0.3349728 | 10 | 0.343829 | 20 | 0.3310804 | 50 | 0.3263784 | 100 | 0.3209062 |
| Vinyl chloride | 2 | 0.426091 | 5 | 0.41346 | 10 | 0.4340009 | 20 | 0.4405129 | 50 | 0.4674331 | 100 | 0.5122934 |
| m,p-Xylene | 4 | 2.751823 | 10 | 2.547583 | 20 | 2.548046 | 40 | 2.475711 | 100 | 2.541944 | 200 | 2.321351 |
| o-Xylene | 2 | 2.720786 | 5 | 2.68089 | 10 | 2.691089 | 20 | 2.674426 | 50 | 2.811735 | 100 | 2.631741 |
| Vinyl acetate | 3.998 | 0.2539514 | 9.995 | 0.25656 | 19.99 | 0.2712915 | 39.98 | 0.2723749 | 99.95 | 0.2701474 | 199.9 | 0.2710752 |
| Xylenes (total) | 6 | 2.741478 | 15 | 2.592019 | 30 | 2.595727 | 60 | 2.541949 | 150 | 2.631875 | 300 | 2.424814 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 10 | 2.035017E-02 | 25 | 1.631798E-02 | 50 | 2.475228E-02 | 100 | 2.155787E-02 | 250 | 2.023138E-02 | 500 | 0.022579 |
| tert-Amyl ethyl ether | 2 | 0.7837667 | 5 | 0.7322342 | 10 | 0.8003297 | 20 | 0.7751016 | 50 | 0.7598148 | 100 | 0.779512 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | 4 | 0.1204517 | 10 | 0.112485 | 20 | 0.1155766 | 40 | 0.1025736 |
| Acrolein | 750.3 | 3.897444E-02 | 1000 | 4.387402E-02 | | | | | | | | |
| Acrylonitrile | 749.7 | 5.597526E-02 | 999.6 | 0.0639749 | | | | | | | | |
| Benzene | 150 | 1.100526 | 200 | 1.032941 | | | | | | | | |
| Bromobenzene | 150 | 0.6956638 | 200 | 0.6869094 | | | | | | | | |
| Bromochloromethane | 150 | 0.1530022 | 200 | 0.1544683 | | | | | | | | |
| Tert-Amyl Methyl Ether | 150 | 0.8745831 | 200 | 0.8465873 | | | | | | | | |
| Bromodichloromethane | 150 | 0.4869667 | 200 | 0.4512457 | | | | | | | | |
| Bromoform | 150 | 0.5442002 | 200 | 0.57119 | | | | | | | | |
| Bromomethane | 150 | 0.3315408 | 200 | 0.3072763 | | | | | | | | |
| Bromofluorobenzene | | | | | 30 | 0.9618454 | 40 | 0.8868147 | 50 | 0.8716623 | 60 | 0.9023058 |
| n-Butylbenzene | 150 | 2.272847 | 200 | 1.996004 | | | | | | | | |
| 2-Butanone | | | | | 4 | 0.1027171 | 10 | 9.659025E-02 | 20 | 0.1025812 | 40 | 0.1160755 |
| sec-Butylbenzene | 150 | 2.627459 | 200 | 2.318489 | | | | | | | | |
| tert-Butylbenzene | 150 | 2.153949 | 200 | 2.014804 | | | | | | | | |
| Carbon disulfide | 150 | 0.8616099 | 200 | 0.8464781 | | | | | | | | |
| Carbon tetrachloride | 150 | 0.6193711 | 200 | 0.5674989 | | | | | | | | |
| Chlorobenzene | 150 | 1.617207 | 200 | 1.616131 | | | | | | | | |
| Chloroethane | 150 | 0.280297 | 200 | 0.25573 | | | | | | | | |
| Chloroform | 150 | 0.6313784 | 200 | 0.5865451 | | | | | | | | |
| 2-Chloroethyl vinyl ether | 299.2 | 9.865035E-02 | 399 | 0.103981 | | | | | | | | |
| Chloromethane | 150 | 0.459899 | 200 | 0.4070476 | | | | | | | | |
| 1-Chlorohexane | 150.3 | 1.691291 | 200.4 | 1.64662 | | | | | | | | |
| 2-Chlorotoluene | 150 | 1.773583 | 200 | 1.639864 | | | | | | | | |
| 4-Chlorotoluene | 150 | 2.063183 | 200 | 1.901456 | | | | | | | | |
| Cyclohexane | 150 | 0.4520502 | 200 | 0.4480573 | | | | | | | | |
| Dibromochloromethane | 150 | 0.7063081 | 200 | 0.7381236 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 150 | 0.1459205 | 200 | ~~0.1675152~~ | | | | | | | | |
| 1,2-Dibromoethane (EDB) | 150 | 0.5194798 | 200 | 0.5626493 | | | | | | | | |
| Dibromomethane | 150 | 0.1850127 | 200 | 0.1863199 | | | | | | | | |
| 1,2-Dichlorobenzene | 150 | 1.279857 | 200 | 1.205836 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 150 | 1.325544 | 200 | 1.24455 | | | | | | | | |
| 1,4-Dichlorobenzene | 150 | 1.329548 | 200 | 1.256745 | | | | | | | | |
| Dichlorodifluoromethane | 150 | 0.6587958 | 200 | 0.5633465 | | | | | | | | |
| 1,1-Dichloroethane | 150 | 0.5817139 | 200 | 0.5624998 | | | | | | | | |
| 1,2-Dichloroethane | 150 | 0.5208717 | 200 | 0.4760521 | | | | | | | | |
| 1,1-Dichloroethene | 150 | 0.2645224 | 200 | 0.2704575 | | | | | | | | |
| cis-1,2-Dichloroethene | 150 | 0.3133583 | 200 | 0.311844 | | | | | | | | |
| trans-1,2-Dichloroethene | 150 | 0.2939427 | 200 | 0.2880683 | | | | | | | | |
| 1,2-Dichloroethene (total) | 300 | 0.3036505 | 400 | 0.2999562 | | | | | | | | |
| 1,2-Dichloropropane | 150 | 0.2908719 | 200 | 0.2819222 | | | | | | | | |
| 1,3-Dichloropropane | 150 | 0.8573139 | 200 | 0.8764932 | | | | | | | | |
| 2,2-Dichloropropane | 150 | 0.6155471 | 200 | 0.5548055 | | | | | | | | |
| 1,1-Dichloropropene | 150 | 0.4984711 | 200 | 0.4617559 | | | | | | | | |
| cis-1,3-Dichloropropene | 150 | 0.526306 | 200 | 0.499327 | | | | | | | | |
| trans-1,3-Dichloropropene | 150 | 0.9246912 | 200 | 0.9329365 | | | | | | | | |
| 1,3-Dichloropropene (total) | 300 | 0.5057279 | 400 | 0.4800206 | | | | | | | | |
| Diisopropyl Ether | 150 | 0.8491621 | 200 | 0.8251728 | | | | | | | | |
| Ethylbenzene | 150 | 2.837099 | 200 | 2.672678 | | | | | | | | |
| Ethyl tert-Butyl Ether | 150 | 0.8908778 | 200 | 0.8508755 | | | | | | | | |
| Ethyl Methacrylate | 150 | 0.6777158 | 200 | 0.7493776 | | | | | | | | |
| Hexachlorobutadiene | 150 | 0.9624121 | 200 | 0.8828159 | | | | | | | | |
| 2-Hexanone | | | | | 4 | 0.3307275 | 10 | 0.2916995 | 20 | 0.325529 | 40 | 0.3615179 |
| Iodomethane | 150 | 0.447285 | 200 | 0.4428398 | | | | | | | | |
| Isopropylbenzene | 150 | 2.745114 | 200 | 2.50982 | | | | | | | | |
| p-Isopropyltoluene | 150 | 2.352369 | 200 | 2.081557 | | | | | | | | |
| Methylene chloride | 150 | 0.2869676 | 200 | 0.2824914 | | | | | | | | |
| Methyl Acetate | 150 | 0.1379821 | 200 | 0.149763 | | | | | | | | |
| Methylcyclohexane | 150 | 0.5406925 | 200 | 0.5249069 | | | | | | | | |
| Naphthalene | 150 | 1.933833 | 200 | 1.876864 | | | | | | | | |
| Methyl Methacrylate | 150 | 0.2300701 | 200 | 0.2367415 | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | 4 | 0.2146762 | 10 | 0.1880842 | 20 | 0.2222947 | 40 | 0.2527105 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Methyl t-Butyl Ether | 150 | 0.8333522 | 200 | 0.8245328 | | | | | | | | |
| n-Propylbenzene | 150 | 2.607682 | 200 | 2.313933 | | | | | | | | |
| Styrene | 150 | 1.926496 | 200 | 1.888674 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 150 | 0.4808843 | 200 | 0.5039573 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 150 | 0.7110928 | 200 | 0.7109527 | | | | | | | | |
| tert-Butyl alcohol | 750 | 2.838845E-02 | 1000 | 0.0341961 | | | | | | | | |
| Tetrachloroethene | 150 | 0.8720114 | 200 | 0.8794635 | | | | | | | | |
| Toluene | 150 | 1.425713 | 200 | 1.449349 | | | | | | | | |
| 1,2,3-Trichlorobenzene | 150 | 1.124378 | 200 | 1.041971 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 150 | 1.203633 | 200 | 1.134213 | | | | | | | | |
| 1,1,2-Trichloroethane | 150 | 0.3902421 | 200 | 0.4214968 | | | | | | | | |
| 1,1,1-Trichloroethane | 150 | 0.6676842 | 200 | 0.613968 | | | | | | | | |
| Tetrahydrofuran | 150 | 5.927805E-02 | 200 | 6.473492E-02 | | | | | | | | |
| Trichloroethene | 150 | 0.3573173 | 200 | 0.3355805 | | | | | | | | |
| Trichlorofluoromethane | 150 | 0.7965599 | 200 | 0.7160252 | | | | | | | | |
| 1,2,3-Trichloropropane | 150 | 0.2166527 | 200 | 0.2316302 | | | | | | | | |
| 1,3,5-Trimethylbenzene | 150 | 2.047 | 200 | 1.874704 | | | | | | | | |
| 1,2,4-Trimethylbenzene | 150 | 2.130588 | 200 | 1.88949 | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 150 | 0.3128377 | 200 | 0.2949434 | | | | | | | | |
| Vinyl chloride | 150 | 0.506982 | 200 | 0.4395156 | | | | | | | | |
| m,p-Xylene | 300 | 2.059812 | 400 | 1.798989 | | | | | | | | |
| o-Xylene | 150 | 2.472224 | 200 | 2.298142 | | | | | | | | |
| Vinyl acetate | 299.8 | 0.2631467 | 399.8 | 0.2674027 | | | | | | | | |
| Xylenes (total) | 450 | 2.197282 | 600 | 1.965374 | | | | | | | | |
| Dibromofluoromethane | | | | | 30 | 0.2865945 | 40 | 0.2854193 | 50 | 0.3100531 | 60 | 0.319028 |
| 1,2-Dichloroethane-d4 | | | | | 30 | 5.220864E-02 | 40 | 5.055867E-02 | 50 | 5.371215E-02 | 60 | 5.766524E-02 |
| Toluene-d8 | | | | | 30 | 2.208722 | 40 | 2.069838 | 50 | 2.001863 | 60 | 2.045386 |
| tert-Amyl alcohol | 750 | 2.200018E-02 | 1000 | 2.687625E-02 | | | | | | | | |
| tert-Amyl ethyl ether | 150 | 0.735029 | 200 | 0.7037213 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 100 | 6.925878E-02 | 200 | 7.172896E-02 | 300 | 7.589366E-02 | 400 | 7.391721E-02 | | | | |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 70 | 0.9204445 | 30 | 0.9027049 | 30 | 0.9145072 | 30 | 0.889013 | | | | |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 100 | 8.815856E-02 | 200 | 9.598433E-02 | 300 | 0.1035289 | 400 | 9.796017E-02 | | | | |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| 1,3-Dichloropropene (total) | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 100 | 0.2803979 | 200 | 0.3159222 | 300 | 0.3445028 | 400 | 0.2956365 | | | | |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 100 | 0.1879317 | 200 | 0.2102253 | 300 | 0.2285544 | 400 | 0.208835 | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1098001 | Instrument: | MS-VOA3 |
| Matrix: | Water | Calibration Dates: | 4/7/11 8:52 4/7/11 16:05 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Methyl t-Butyl Ether | | | | | | | | | | | | |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 70 | 0.3172671 | 30 | 0.2956054 | 30 | 0.2983866 | 30 | 0.3160084 | | | | |
| 1,2-Dichloroethane-d4 | 70 | 5.267714E-02 | 30 | 5.085055E-02 | 30 | 4.808416E-02 | 30 | 5.395516E-02 | | | | |
| Toluene-d8 | 70 | 2.076257 | 30 | 2.029703 | 30 | 2.000409 | 30 | 1.993982 | | | | |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA3 | Calibration: | 1098001 |
| Lab File ID: | 04071CV1.D | Calibration Date: | 04/07/11 08:52 |
| Sequence: | 1D09707 | Injection Date: | 04/07/11 |
| Lab Sample ID: | 1D09707-ICV1 | Injection Time: | 12:14 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 50.00 | 52.64 | 1.16467 | 1.226082 | | 5.3 | 20 |
| Ethylbenzene | A | 50.00 | 54.62 | 3.069908 | 3.353427 | | 9.2 | 20 |
| Methyl t-Butyl Ether | A | 50.00 | 47.37 | 0.8668359 | 0.8211596 | | -5.3 | 20 |
| Toluene | A | 50.00 | 56.36 | 1.460308 | 1.646167 | | 12.7 | 20 |
| Xylenes (total) | A | 150.0 | 159.4 | 2.461315 | 2.613334 | | 6.2 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.94 | 0.9061622 | 0.9345148 | | 3.1 | 20 |
| Dibromofluoromethane | A | 30.00 | 28.97 | 0.3035453 | 0.293129 | | -3.4 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 31.54 | 5.246396E-02 | 5.515528E-02 | | 5.1 | 20 |
| Toluene-d8 | A | 30.00 | 31.25 | 2.05327 | 2.139119 | | 4.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10201 | Instrument: | MS-VOA3 |
| Calibration: | 1098001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10201-TUN1 | 0411TU1.D | 04/11/11 06:37 |
| Calibration Check | 1D10201-CCV1 | 0411CCV1.D | 04/11/11 07:02 |
| LCS | 1D11009-BS1 | 0411LS1.D | 04/11/11 07:27 |
| Blank | 1D11009-BLK1 | 0411BL1.D | 04/11/11 08:43 |
| 05-SS-037-0204-D | 1104084-02 | 0408402.D | 04/11/11 15:39 |
| 05-SS-037-0204 | 1104084-03 | 0408403.D | 04/11/11 16:05 |
| 05-SS-039-0204 | 1104084-05 | 0408405.D | 04/11/11 16:31 |
| 05-SS-040-0204 | 1104084-07 | 0408407.D | 04/11/11 16:56 |
| 05-SS-041-0204 | 1104084-08 | 0408408.D | 04/11/11 17:22 |
| 05-SS-042-0204 | 1104084-09 | 0408409.D | 04/11/11 17:47 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0411TU1.D | Injection Date: | 04/11/11 |
| Instrument ID: | MS-VOA3 | Injection Time: | 06:37 |
| Sequence: | 1D10201 | Lab Sample ID: | 1D10201-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 21.8 | PASS |
| 75 | 30 - 60% of 95 | 59.1 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.19 | PASS |
| 173 | Less than 2% of 174 | 0.615 | PASS |
| 174 | 50 - 200% of 95 | 98.9 | PASS |
| 175 | 5 - 9% of 174 | 7.42 | PASS |
| 176 | 95 - 101% of 174 | 98.5 | PASS |
| 177 | 5 - 9% of 176 | 6.94 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA3 | Calibration: | 1098001 |
| Lab File ID: | 0411CCV1.D | Calibration Date: | 04/07/11 08:52 |
| Sequence: | 1D10201 | Injection Date: | 04/11/11 |
| Lab Sample ID: | 1D10201-CCV1 | Injection Time: | 07:02 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 89.67 | 1.16467 | 1.04436 | | -10.3 | 20 |
| Ethylbenzene | A | 100.0 | 91.59 | 3.069908 | 2.811707 | | -8.4 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 90.76 | 0.8668359 | 0.7867307 | | -9.2 | 20 |
| Toluene | A | 100.0 | 84.97 | 1.460308 | 1.240852 | | -15.0 | 20 |
| Xylenes (total) | A | 300.0 | 275.2 | 2.461315 | 2.258748 | | -8.2 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.79 | 0.9061622 | 1.05098 | | 16.0 | 20 |
| Dibromofluoromethane | A | 30.00 | 32.43 | 0.3035453 | 0.3281803 | | 8.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 27.23 | 5.246396E-02 | 4.762225E-02 | | -9.2 | 20 |
| Toluene-d8 | A | 30.00 | 27.94 | 2.05327 | 1.912626 | | -6.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1C08024
Instrument: MS-VOA6
Calibration: 1081001

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08024-TUN1 | 0208TUN1.D | 02/08/11 16:12 |
| Cal Standard | 1C08024-CAL1 | 0208CAL1.D | 02/08/11 16:35 |
| Cal Standard | 1C08024-CAL2 | 0208CAL2.D | 02/08/11 16:59 |
| Cal Standard | 1C08024-CAL3 | 0208CAL3.D | 02/08/11 17:23 |
| Cal Standard | 1C08024-CAL4 | 0208CAL4.D | 02/08/11 17:47 |
| Cal Standard | 1C08024-CAL5 | 0208CAL5.D | 02/08/11 18:11 |
| Cal Standard | 1C08024-CAL7 | 0208CAL7.D | 02/08/11 18:59 |
| Cal Standard | 1C08024-CAL8 | 0208CAL8.D | 02/08/11 19:23 |
| MS Tune | 1C08024-TUN2 | 0208TUN2.D | 02/09/11 06:45 |
| Cal Standard | 1C08024-CAL6 | 208CAL6A.D | 02/09/11 07:13 |
| Initial Cal Check | 1C08024-ICV1 | 208ICV1A.D | 02/09/11 07:37 |
| Initial Cal Check | 1C08024-ICV2 | 0209icv2.D | 02/09/11 09:08 |
| MS Tune | 1C08024-TUN3 | 0208TUN3.D | 02/09/11 15:56 |
| Cal Standard | 1C08024-CALH | SEQ-CALH.D | 02/09/11 16:20 |
| Cal Standard | 1C08024-CALI | SEQ-CALI.D | 02/09/11 16:45 |
| Cal Standard | 1C08024-CALJ | SEQ-CALJ.D | 02/09/11 17:09 |
| Cal Standard | 1C08024-CALK | SEQ-CALK.D | 02/09/11 17:33 |
| Cal Standard | 1C08024-CALL | SEQ-CALL.D | 02/09/11 17:56 |
| Cal Standard | 1C08024-CALM | SEQ-CALM.D | 02/09/11 18:20 |
| Cal Standard | 1C08024-CALN | SEQ-CALN.D | 02/09/11 18:44 |
| Cal Standard | 1C08024-CALO | SEQ-CALO.D | 02/09/11 19:08 |
| MS Tune | 1C08024-TUN4 | 0211TUN4.D | 02/11/11 14:35 |
| MS Tune | 1C08024-TUN5 | 0317TUN5.D | 03/17/11 09:51 |
| Cal Standard | 1C08024-CAL9 | 0317CAL1.D | 03/17/11 12:18 |
| Cal Standard | 1C08024-CALA | 0317CAL2.D | 03/17/11 12:43 |
| Cal Standard | 1C08024-CALB | 0317CAL3.D | 03/17/11 13:07 |
| Cal Standard | 1C08024-CALC | 0317CAL4.D | 03/17/11 13:32 |
| Cal Standard | 1C08024-CALD | 0317CAL5.D | 03/17/11 13:57 |
| Cal Standard | 1C08024-CALE | 0317CAL6.D | 03/17/11 14:21 |
| Cal Standard | 1C08024-CALF | 0317CAL7.D | 03/17/11 14:46 |
| Cal Standard | 1C08024-CALG | 0317CAL8.D | 03/17/11 15:11 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN1.D | Injection Date: | 02/08/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 16:12 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 21.5 | PASS |
| 75 | 30 - 60% of 95 | 39.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.17 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 84.4 | PASS |
| 175 | 5 - 9% of 174 | 7.21 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN2.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 06:45 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 23.4 | PASS |
| 75 | 30 - 60% of 95 | 41.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.69 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 82.1 | PASS |
| 175 | 5 - 9% of 174 | 7.04 | PASS |
| 176 | 95 - 101% of 174 | 95 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN3.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 15:56 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN3 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.4 | PASS |
| 75 | 30 - 60% of 95 | 43.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.71 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 63.8 | PASS |
| 175 | 5 - 9% of 174 | 7.5 | PASS |
| 176 | 95 - 101% of 174 | 97.4 | PASS |
| 177 | 5 - 9% of 176 | 6.46 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0211TUN4.D | Injection Date: | 02/11/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 14:35 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN4 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.3 | PASS |
| 75 | 30 - 60% of 95 | 40 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.39 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 86.4 | PASS |
| 175 | 5 - 9% of 174 | 6.88 | PASS |
| 176 | 95 - 101% of 174 | 95.8 | PASS |
| 177 | 5 - 9% of 176 | 6.12 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TUN5.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 09:51 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN5 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.1 | PASS |
| 75 | 30 - 60% of 95 | 46.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.79 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 69.4 | PASS |
| 175 | 5 - 9% of 174 | 7.65 | PASS |
| 176 | 95 - 101% of 174 | 95.3 | PASS |
| 177 | 5 - 9% of 176 | 6.71 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1081001

Instrument: MS-VOA6

Matrix: Water

Calibration Dates: 2/8/11 16:35 3/17/11 15:11

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 9.260554E-02 | 28.00847 | 3.792143 | 0.2505724 | | 0.9930411 | 0.99 | |
| Acrolein | 3.068373E-02 | 14.17936 | 3.687375 | 0.266829 | | | 15 | |
| Acrylonitrile | 8.885261E-02 | 18.29246 | 4.637625 | 0.1611173 | 0.9961602 | | 0.995 | |
| Benzene | 1.113159 | 4.608946 | 7.67675 | 4.449891E-02 | | | 15 | |
| Bromobenzene | 0.7164301 | 3.444919 | 12.40125 | 2.882236E-02 | | | 15 | |
| Bromochloromethane | 0.1470133 | 2.818947 | 6.77675 | 6.962075E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7667359 | 3.84088 | 7.868625 | 0.0369654 | | | 15 | |
| Bromodichloromethane | 0.3261603 | 6.110637 | 8.6565 | 0.0395075 | | | 15 | |
| Bromoform | 0.3300278 | 14.56769 | 11.81133 | 3.114238E-02 | | | SPCC (0.1) | |
| Bromomethane | 9.416029E-02 | 13.49252 | 2.841429 | 0.3399494 | | | 15 | |
| Bromofluorobenzene | 0.7951301 | 2.708642 | 12.22875 | 0.0251581 | | | 15 | |
| n-Butylbenzene | 2.759967 | 3.753642 | 13.82862 | 1.990092E-02 | | | 15 | |
| 2-Butanone | 0.1620167 | 9.544266 | 6.227 | 6.194136E-02 | | | 15 | |
| sec-Butylbenzene | 3.285152 | 4.35073 | 13.29013 | 3.345705E-02 | | | 15 | |
| tert-Butylbenzene | 2.145432 | 3.707538 | 13.05663 | 2.013395E-02 | | | 15 | |
| Carbon disulfide | 0.7939658 | 17.02013 | 4.8035 | 0.1982975 | 0.9975385 | | 0.995 | |
| Carbon tetrachloride | 0.3144458 | 8.98804 | 7.644625 | 5.435293E-02 | | | 15 | |
| Chlorobenzene | 1.859646 | 6.752518 | 11.08463 | 2.703025E-02 | | | SPCC (0.3) | |
| Chloroethane | 8.354599E-02 | 6.438411 | 2.97925 | 0.3520969 | | | 15 | |
| Chloroform | 0.4852062 | 3.430147 | 6.7485 | 5.313365E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.17477 | 3.894887 | 9.0105 | 4.037457E-02 | | | 15 | |
| Chloromethane | 0.3749535 | 3.973692 | 2.239125 | 0.4681154 | | | SPCC (0.1) | |
| 1-Chlorohexane | 2.070736 | 5.11712 | 11.051 | 3.853776E-02 | | | 15 | |
| 2-Chlorotoluene | 2.109323 | 4.700997 | 12.6225 | 3.341376E-02 | | | 15 | |
| 4-Chlorotoluene | 2.329282 | 4.243641 | 12.68525 | 2.421974E-02 | | | 15 | |
| Cyclohexane | 0.685955 | 5.186082 | 7.5735 | 5.633159E-02 | | | 15 | |
| Dibromochloromethane | 0.5441809 | 14.16857 | 10.3225 | 3.125264E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1110578 | 4.56858 | 14.43113 | 0.0227997 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5250303 | 8.57485 | 10.53375 | 2.690444E-02 | | | 15 | |
| Dibromomethane | 0.172495 | 3.274856 | 8.595125 | 3.800596E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.192622 | 3.865282 | 13.789 | 1.366507E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.301676 | 2.74033 | 13.3795 | 3.011168E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.315839 | 3.393764 | 13.47213 | 2.224884E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.2743014 | 10.74781 | 2.016625 | 0.5619011 | | | 15 | |
| 1,1-Dichloroethane | 0.586753 | 4.750245 | 5.793375 | 7.525912E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.2934489 | 4.123627 | 7.505875 | 5.038248E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2034482 | 14.48541 | 4.277667 | 0.1728932 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3168749 | 2.657418 | 6.4965 | 8.574096E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.283059 | 5.687211 | 5.419625 | 8.226152E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2999669 | 3.809693 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.3682027 | 2.627754 | 8.4795 | 4.454179E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8250139 | 6.792829 | 10.06175 | 0.0225482 | | | 15 | |
| 2,2-Dichloropropane | 0.3408366 | 5.440234 | 6.602125 | 6.320189E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.386876 | 5.080917 | 7.524375 | 0.0579442 | | | 15 | |
| cis-1,3-Dichloropropene | 0.441167 | 3.859299 | 9.22575 | 3.273881E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7537714 | 6.572131 | 9.69775 | 2.998173E-02 | | | 15 | |
| Diisopropyl Ether | 1.648527 | 3.427531 | 6.164375 | 8.144213E-02 | | | 15 | |
| Ethylbenzene | 3.20803 | 9.080474 | 11.2305 | 3.248409E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 1.014941 | 4.802987 | 6.624375 | 5.856448E-02 | | | 15 | |
| Ethyl Methacrylate | 0.8111924 | 7.03362 | 9.88475 | 3.023834E-02 | | | 15 | |
| Hexachlorobutadiene | 0.4736085 | 5.501745 | 15.78825 | 2.462656E-02 | | | 15 | |
| 2-Hexanone | 0.5814636 | 8.204247 | 9.98775 | 2.484454E-02 | | | 15 | |
| Iodomethane | 0.3021595 | 14.1237 | 4.468714 | 0.194976 | | | 15 | |
| Isopropylbenzene | 2.472317 | 8.225239 | 12.12925 | 2.846195E-02 | | | 15 | |
| p-Isopropyltoluene | 2.330942 | 4.564871 | 13.4265 | 0.02919 | | | 15 | |
| Methylene chloride | 0.3823591 | 43.34252 | 4.754375 | 0.1602236 | 0.9983757 | | 0.995 | |
| Methyl Acetate | 0.2345594 | 13.01771 | 4.628714 | 0.1631094 | | | 15 | |
| Methylcyclohexane | 0.5128412 | 4.32501 | 8.80775 | 0.0356778 | | | 15 | |
| Naphthalene | 1.602647 | 6.275391 | 15.66025 | 1.983775E-02 | | | 15 | |
| Methyl Methacrylate | 0.471708 | 2.883842 | 7.5735 | 5.633159E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.3518691 | 8.076643 | 9.140625 | 1.978248E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.6002451 | 4.891206 | 5.423375 | 0.1227064 | | | 15 | |
| n-Propylbenzene | 3.803681 | 4.930978 | 12.5375 | 2.980661E-02 | | | 15 | |
| Styrene | 1.92732 | 6.721793 | 11.704 | 2.493567E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1081001 | Instrument: | MS-VOA6 | |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 | 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6908364 | 4.258784 | 12.05575 | 3.119017E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6333042 | 8.281663 | 11.1275 | 3.464365E-02 | | | 15 | |
| ~~tert-Butyl alcohol~~ | ~~2.671035E-02~~ | 9.966665 | 4.427375 | 0.2216083 | | | 15 | |
| Tetrachloroethene | 0.6244481 | 8.506563 | 10.43312 | 3.100488E-02 | | | 15 | |
| Toluene | 1.598242 | 4.627079 | 9.70025 | 4.291451E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.7016011 | 4.889794 | 15.94525 | 2.154844E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.7933826 | 3.727781 | 15.508 | 1.845566E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.468124 | 6.206816 | 9.8525 | 3.322686E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3447116 | 5.271122 | 7.3065 | 4.409785E-02 | | | 15 | |
| Tetrahydrofuran | 0.125175 | 32.67256 | 6.962375 | 9.085995E-02 | 0.9977438 | | 0.995 | |
| Trichloroethene | 0.308656 | 4.617016 | 8.43125 | 5.007405E-02 | | | 15 | |
| Trichlorofluoromethane | 0.4287223 | 6.644425 | 3.48675 | 0.268437 | | | 15 | |
| 1,2,3-Trichloropropane | 0.141114 | 8.142237 | 12.1785 | 2.715286E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.27177 | 3.75346 | 12.7145 | 2.609472E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 2.273427 | 4.81283 | 13.08825 | 1.976355E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2574515 | 8.290995 | 4.35 | 0.1908188 | | | 15 | |
| Vinyl chloride | 0.1888258 | 14.37893 | 2.38775 | 0.3384152 | | | CCC (20) | |
| m,p-Xylene | 2.321142 | 4.033096 | 11.34387 | 3.895987E-02 | | | 15 | |
| o-Xylene | 2.395421 | 7.925602 | 11.73375 | 4.033886E-02 | | | 15 | |
| Vinyl acetate | 0.44353 | 3.427564 | 5.86575 | 0.0758661 | | | 15 | |
| Xylenes (total) | 2.345902 | 4.444014 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.2924952 | 1.275439 | 6.909375 | 4.408995E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 5.404713E-02 | 3.185261 | 7.40225 | 6.524669E-02 | | | 15 | |
| Toluene-d8 | 2.103453 | 1.736151 | 9.61275 | 2.403928E-02 | | | 15 | |
| ~~tert-Amyl alcohol~~ | ~~2.611649E-02~~ | 4.492563 | 7.122 | 5.407818E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.8849963 | 4.245319 | 8.745 | 4.184207E-02 | | | 15 | |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 10 | 3.756483E-02 | 25.01 | 3.592496E-02 | 50.02 | 3.279747E-02 | 100 | 3.027563E-02 | 250.1 | 2.616578E-02 | 500.2 | 2.836008E-02 |
| Acrylonitrile | 9.996 | 7.751938E-02 | 24.99 | 6.934293E-02 | 49.98 | 0.1036364 | 99.96 | 6.371372E-02 | 249.9 | 9.483173E-02 | 499.8 | 0.1038235 |
| Benzene | 2 | 1.061782 | 5 | 1.085753 | 10 | 1.07756 | 20 | 1.101538 | 50 | 1.062681 | 100 | 1.168729 |
| Bromobenzene | 2 | 0.7470029 | 5 | 0.690608 | 10 | 0.73579 | 20 | 0.7029826 | 50 | 0.6759098 | 100 | 0.7159262 |
| Bromochloromethane | 2 | 0.1531184 | 5 | 0.1481263 | 10 | 0.1471181 | 20 | 0.1476266 | 50 | 0.1386942 | 100 | 0.1478994 |
| Tert-Amyl Methyl Ether | 2 | 0.7507538 | 5 | 0.7660239 | 10 | 0.7592371 | 20 | 0.7607483 | 50 | 0.7115281 | 100 | 0.7910823 |
| Bromodichloromethane | 2 | 0.3104988 | 5 | 0.3071958 | 10 | 0.3190153 | 20 | 0.3117362 | 50 | 0.3116093 | 100 | 0.3449616 |
| Bromoform | 2 | ~~0.2616829~~ | 5 | 0.2798085 | 10 | 0.3012296 | 20 | 0.3115155 | 50 | 0.3087993 | 100 | 0.3759775 |
| Bromomethane | 2 | ~~7.371335E-02~~ | 5 | 7.750693E-02 | 10 | 8.466907E-02 | 20 | 8.624543E-02 | 50 | 0.0937419 | 100 | 0.1153427 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 2 | 2.785165 | 5 | 2.617003 | 10 | 2.816419 | 20 | 2.750954 | 50 | 2.622143 | 100 | 2.894858 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 2 | 3.151285 | 5 | 3.066315 | 10 | 3.323505 | 20 | 3.301126 | 50 | 3.202842 | 100 | 3.459591 |
| tert-Butylbenzene | 2 | 2.17391 | 5 | 2.031212 | 10 | 2.135985 | 20 | 2.119383 | 50 | 2.039649 | 100 | 2.229972 |
| Carbon disulfide | 2 | 0.7149891 | 5 | 0.6924307 | 10 | 0.7993255 | 20 | 0.5551867 | 50 | 0.8103692 | 100 | 0.9498407 |
| Carbon tetrachloride | 2 | 0.2889103 | 5 | 0.2860839 | 10 | 0.288463 | 20 | 0.3030137 | 50 | 0.3080328 | 100 | 0.35016 |
| Chlorobenzene | 2 | 1.875558 | 5 | 1.771786 | 10 | 1.803756 | 20 | 1.765153 | 50 | 1.690779 | 100 | 1.905895 |
| Chloroethane | 2 | 8.705562E-02 | 5 | 7.229842E-02 | 10 | 8.957504E-02 | 20 | 8.400356E-02 | 50 | 8.288075E-02 | 100 | 8.787256E-02 |
| Chloroform | 2 | 0.4898649 | 5 | 0.4751689 | 10 | 0.4707317 | 20 | 0.4865336 | 50 | 0.457359 | 100 | 0.5020879 |
| 2-Chloroethyl vinyl ether | 3.99 | 0.1848713 | 9.975 | 0.1784075 | 19.95 | 0.1770296 | 39.9 | 0.1763524 | 99.75 | 0.1619434 | 199.5 | 0.1744515 |
| Chloromethane | 2 | 0.35766 | 5 | 0.3572945 | 10 | 0.3695839 | 20 | 0.3693712 | 50 | 0.3945523 | 100 | 0.3919691 |
| 1-Chlorohexane | 2.004 | 2.22108 | 5.01 | 2.023071 | 10.02 | 2.169874 | 20.04 | 2.118177 | 50.1 | 2.018756 | 100.2 | 2.112281 |
| 2-Chlorotoluene | 2 | 2.026203 | 5 | 2.003491 | 10 | 2.116461 | 20 | 2.10787 | 50 | 1.979201 | 100 | 2.20004 |
| 4-Chlorotoluene | 2 | 2.219507 | 5 | 2.256409 | 10 | 2.307302 | 20 | 2.295402 | 50 | 2.228706 | 100 | 2.424602 |
| Cyclohexane | 2 | 0.7461476 | 5 | 0.6373068 | 10 | 0.6643557 | 20 | 0.6754938 | 50 | 0.6609604 | 100 | 0.711204 |
| Dibromochloromethane | 2 | 0.4664542 | 5 | 0.4878683 | 10 | 0.5045771 | 20 | 0.5001025 | 50 | 0.4934865 | 100 | 0.5950801 |
| 1,2-Dibromo-3-chloropropane | 2 | 0.11204 | 5 | 0.1045764 | 10 | 0.1082321 | 20 | 0.1108009 | 50 | 0.1044906 | 100 | 0.1137534 |
| 1,2-Dibromoethane (EDB) | 2 | 0.6004558 | 5 | 0.5329797 | 10 | 0.4938069 | 20 | 0.4902496 | 50 | 0.458391 | 100 | 0.515838 |
| Dibromomethane | 2 | 0.1753952 | 5 | 0.1633735 | 10 | 0.1759811 | 20 | 0.1750685 | 50 | 0.1642084 | 100 | 0.1767537 |
| 1,2-Dichlorobenzene | 2 | 1.25758 | 5 | 1.158089 | 10 | 1.202775 | 20 | 1.190451 | 50 | 1.107789 | 100 | 1.182512 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 2 | 1.313197 | 5 | 1.280567 | 10 | 1.331553 | 20 | 1.320101 | 50 | 1.222079 | 100 | 1.308105 |
| 1,4-Dichlorobenzene | 2 | 1.397145 | 5 | 1.336716 | 10 | 1.321149 | 20 | 1.291749 | 50 | 1.239289 | 100 | 1.30013 |
| Dichlorodifluoromethane | 2 | 0.2899824 | 5 | 0.2433753 | 10 | 0.2462849 | 20 | 0.2339546 | 50 | 0.2969228 | 100 | 0.3137854 |
| 1,1-Dichloroethane | 2 | 0.5414735 | 5 | 0.5528414 | 10 | 0.6051287 | 20 | 0.5926146 | 50 | 0.5757458 | 100 | 0.6148422 |
| 1,2-Dichloroethane | 2 | 0.293543 | 5 | 0.2842689 | 10 | 0.2959148 | 20 | 0.2875738 | 50 | 0.2714845 | 100 | 0.3087262 |
| 1,1-Dichloroethene | 2 | ~~0.1672813~~ | 5 | 0.1708818 | 10 | 0.2138923 | 20 | 0.1881977 | 50 | 0.2206685 | 100 | 0.2484578 |
| cis-1,2-Dichloroethene | 2 | 0.3114254 | 5 | 0.3106307 | 10 | 0.3209246 | 20 | 0.3086273 | 50 | 0.3079395 | 100 | 0.3264114 |
| trans-1,2-Dichloroethene | 2 | 0.2866469 | 5 | 0.2498845 | 10 | 0.2830028 | 20 | 0.2781287 | 50 | 0.2772549 | 100 | 0.3027944 |
| 1,2-Dichloroethene (total) | 4 | 0.2990361 | 10 | 0.2802576 | 20 | 0.3019637 | 40 | 0.293378 | 100 | 0.2925972 | 200 | 0.3146029 |
| 1,2-Dichloropropane | 2 | 0.3763763 | 5 | 0.3682909 | 10 | 0.365142 | 20 | 0.3629965 | 50 | 0.3481348 | 100 | 0.3742469 |
| 1,3-Dichloropropane | 2 | 0.879273 | 5 | 0.7939543 | 10 | 0.8081485 | 20 | 0.7899708 | 50 | 0.73429 | 100 | 0.8173957 |
| 2,2-Dichloropropane | 2 | 0.3242779 | 5 | 0.3285206 | 10 | 0.3349875 | 20 | 0.3345004 | 50 | 0.3213804 | 100 | 0.3729991 |
| 1,1-Dichloropropene | 2 | 0.3884081 | 5 | 0.3484738 | 10 | 0.3805441 | 20 | 0.3847533 | 50 | 0.3792585 | 100 | 0.4104046 |
| cis-1,3-Dichloropropene | 2 | 0.4344839 | 5 | 0.4350143 | 10 | 0.4301103 | 20 | 0.4335544 | 50 | 0.4170583 | 100 | 0.4573277 |
| trans-1,3-Dichloropropene | 2 | 0.7683201 | 5 | 0.7138107 | 10 | 0.7232023 | 20 | 0.7117684 | 50 | 0.6927822 | 100 | 0.7933086 |
| Diisopropyl Ether | 2 | 1.643891 | 5 | 1.595466 | 10 | 1.621821 | 20 | 1.620216 | 50 | 1.573697 | 100 | 1.707769 |
| Ethylbenzene | 2 | 3.006193 | 5 | 2.923263 | 10 | 3.07896 | 20 | 3.067902 | 50 | 2.95293 | 100 | 3.41056 |
| Ethyl tert-Butyl Ether | 2 | 0.9974004 | 5 | 0.9712783 | 10 | 0.9963493 | 20 | 0.9846551 | 50 | 0.9564952 | 100 | 1.075788 |
| Ethyl Methacrylate | 2 | 0.8625155 | 5 | 0.8436295 | 10 | 0.7624561 | 20 | 0.7667309 | 50 | 0.7163738 | 100 | 0.8089864 |
| Hexachlorobutadiene | 2 | 0.4575836 | 5 | 0.4341365 | 10 | 0.4659515 | 20 | 0.4715648 | 50 | 0.4532541 | 100 | 0.5045612 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 2 | 0.248407 | 5 | 0.2548802 | 10 | 0.3049656 | 20 | 0.279838 | 50 | 0.3250018 | 100 | 0.3519559 |
| Isopropylbenzene | 2 | 2.294059 | 5 | 2.285611 | 10 | 2.452665 | 20 | 2.37677 | 50 | 2.275532 | 100 | 2.581928 |
| p-Isopropyltoluene | 2 | 2.309628 | 5 | 2.135441 | 10 | 2.337972 | 20 | 2.332356 | 50 | 2.269986 | 100 | 2.487688 |
| Methylene chloride | 2 | 0.7552542 | 5 | 0.4559193 | 10 | 0.3996641 | 20 | 0.2317498 | 50 | 0.2907731 | 100 | 0.3130779 |
| Methyl Acetate | 2 | 0.2236285 | 5 | 0.2514748 | 10 | 0.2597989 | 20 | 0.1718908 | 50 | 0.2310738 | 100 | 0.2529856 |
| Methylcyclohexane | 2 | 0.5012217 | 5 | 0.4741875 | 10 | 0.5071525 | 20 | 0.5214485 | 50 | 0.502103 | 100 | 0.5426753 |
| Naphthalene | 2 | 1.780473 | 5 | 1.614442 | 10 | 1.578626 | 20 | 1.557813 | 50 | 1.429284 | 100 | 1.560273 |
| Methyl Methacrylate | 2 | 0.48326 | 5 | 0.4803774 | 10 | 0.4711374 | 20 | 0.4626519 | 50 | 0.4558675 | 100 | 0.4859491 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 2 | 0.5759807 | 5 | 0.5826558 | 10 | 0.5951922 | 20 | 0.5754943 | 50 | 0.5694992 | 100 | 0.638687 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 2 | 3.79603 | 5 | 3.545272 | 10 | 3.80743 | 20 | 3.780267 | 50 | 3.661068 | 100 | 4.13336 |
| Styrene | 2 | 1.927309 | 5 | 1.80957 | 10 | 1.873548 | 20 | 1.872612 | 50 | 1.750939 | 100 | 1.970078 |
| 1,1,2,2-Tetrachloroethane | 2 | 0.6828267 | 5 | 0.7255559 | 10 | 0.7090542 | 20 | 0.6776878 | 50 | 0.6315376 | 100 | 0.71698 |
| 1,1,1,2-Tetrachloroethane | 2 | 0.6138791 | 5 | 0.5872829 | 10 | 0.6046367 | 20 | 0.6078519 | 50 | 0.5767041 | 100 | 0.6580373 |
| tert-Butyl alcohol | 10 | 3.247147E-02 | 25 | 2.832816E-02 | 50 | 2.641692E-02 | 100 | 2.675249E-02 | 250 | 2.407234E-02 | 500 | 2.525515E-02 |
| Tetrachloroethene | 2 | 0.6411317 | 5 | 0.5516078 | 10 | 0.6071488 | 20 | 0.5940988 | 50 | 0.5687704 | 100 | 0.6485346 |
| Toluene | 2 | 1.653855 | 5 | 1.500784 | 10 | 1.608872 | 20 | 1.546331 | 50 | 1.509546 | 100 | 1.656163 |
| 1,2,3-Trichlorobenzene | 2 | 0.7095767 | 5 | 0.7003469 | 10 | 0.7116627 | 20 | 0.6956501 | 50 | 0.6350796 | 100 | 0.6810502 |
| 1,2,4-Trichlorobenzene | 2 | 0.8162488 | 5 | 0.7952111 | 10 | 0.7953906 | 20 | 0.7745676 | 50 | 0.7371004 | 100 | 0.7827231 |
| 1,1,2-Trichloroethane | 2 | 0.5007809 | 5 | 0.4659105 | 10 | 0.4662858 | 20 | 0.4427537 | 50 | 0.416613 | 100 | 0.4616935 |
| 1,1,1-Trichloroethane | 2 | 0.3368524 | 5 | 0.3178967 | 10 | 0.3316859 | 20 | 0.3398842 | 50 | 0.3373299 | 100 | 0.3698448 |
| Tetrahydrofuran | 2 | 0.2155278 | 5 | 0.1543103 | 10 | 0.118979 | 20 | 0.1078508 | 50 | 9.851796E-02 | 100 | 0.1062613 |
| Trichloroethene | 2 | 0.328765 | 5 | 0.2905771 | 10 | 0.2943873 | 20 | 0.3047147 | 50 | 0.2969598 | 100 | 0.3201752 |
| Trichlorofluoromethane | 2 | 0.4417375 | 5 | 0.4173432 | 10 | 0.4186727 | 20 | 0.4473662 | 50 | 0.4334278 | 100 | 0.4536805 |
| 1,2,3-Trichloropropane | 2 | 0.1627907 | 5 | 0.1329942 | 10 | 0.134935 | 20 | 0.1426108 | 50 | 0.1239256 | 100 | 0.1396684 |
| 1,3,5-Trimethylbenzene | 2 | 2.255114 | 5 | 2.173421 | 10 | 2.276182 | 20 | 2.202211 | 50 | 2.172413 | 100 | 2.372903 |
| 1,2,4-Trimethylbenzene | 2 | 2.309479 | 5 | 2.14176 | 10 | 2.199332 | 20 | 2.211839 | 50 | 2.158688 | 100 | 2.3911 |
| 1,1,2-Trichloro-1,2,2-trifluoroethar | 2 | 0.268791 | 5 | 0.2260116 | 10 | 0.2709447 | 20 | 0.2430542 | 50 | 0.2542092 | 100 | 0.2843963 |
| Vinyl chloride | 2 | 0.2231652 | 5 | 0.1838824 | 10 | 0.1648936 | 20 | 0.1664933 | 50 | 0.2255206 | 100 | 0.2109722 |
| m,p-Xylene | 4 | 2.356566 | 10 | 2.201289 | 20 | 2.300586 | 40 | 2.335069 | 100 | 2.271009 | 200 | 2.481994 |
| o-Xylene | 2 | 2.296002 | 5 | 2.225227 | 10 | 2.338918 | 20 | 2.313981 | 50 | 2.173523 | 100 | 2.494403 |
| Vinyl acetate | 3.998 | 0.4521423 | 9.995 | 0.4534324 | 19.99 | 0.4418868 | 39.98 | 0.4271593 | 99.95 | 0.4198531 | 199.9 | 0.4560466 |
| Xylenes (total) | 6 | 2.336378 | 15 | 2.209268 | 30 | 2.313363 | 60 | 2.328039 | 150 | 2.238513 | 300 | 2.48613 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 10 | 2.774079E-02 | 25 | 0.0266787 | 50 | 2.668582E-02 | 100 | 2.719233E-02 | 250 | 2.468558E-02 | 500 | 2.532327E-02 |
| tert-Amyl ethyl ether | 2 | 0.8583258 | 5 | 0.850034 | 10 | 0.8687331 | 20 | 0.8675918 | 50 | 0.8495265 | 100 | 0.9293077 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | 4 | 0.1347026 | 10 | 0.1001498 | 20 | 0.1056507 | 40 | 0.1037585 |
| Acrolein | 750.3 | 2.838079E-02 | 1000 | 2.600032E-02 | | | | | | | | |
| Acrylonitrile | 749.7 | 0.1024932 | 999.6 | 9.546004E-02 | | | | | | | | |
| Benzene | 150 | 1.192145 | 200 | 1.155082 | | | | | | | | |
| Bromobenzene | 150 | 0.7302519 | 200 | 0.7329693 | | | | | | | | |
| Bromochloromethane | 150 | 0.1491289 | 200 | 0.1443947 | | | | | | | | |
| Tert-Amyl Methyl Ether | 150 | 0.807724 | 200 | 0.7867898 | | | | | | | | |
| Bromodichloromethane | 150 | 0.3531789 | 200 | 0.3510862 | | | | | | | | |
| Bromoform | 150 | 0.4028367 | 200 | ~~0.4128355~~ | | | | | | | | |
| Bromomethane | 150 | 0.1015578 | 200 | 0.1000582 | | | | | | | | |
| Bromofluorobenzene | | | | | 30 | 0.8230123 | 40 | 0.8034236 | 50 | 0.7644337 | 60 | 0.7687512 |
| n-Butylbenzene | 150 | 2.870467 | 200 | 2.722726 | | | | | | | | |
| 2-Butanone | | | | | 4 | 0.1613574 | 10 | 0.1735417 | 20 | 0.1780046 | 40 | 0.1810548 |
| sec-Butylbenzene | 150 | 3.480445 | 200 | 3.296109 | | | | | | | | |
| tert-Butylbenzene | 150 | 2.240936 | 200 | 2.192407 | | | | | | | | |
| Carbon disulfide | 150 | 0.9301783 | 200 | 0.8994057 | | | | | | | | |
| Carbon tetrachloride | 150 | 0.3521533 | 200 | 0.338749 | | | | | | | | |
| Chlorobenzene | 150 | 2.022008 | 200 | 2.042233 | | | | | | | | |
| Chloroethane | 150 | 8.393602E-02 | 200 | 8.074598E-02 | | | | | | | | |
| Chloroform | 150 | 0.5073668 | 200 | 0.4925365 | | | | | | | | |
| 2-Chloroethyl vinyl ether | 299.2 | 0.1762279 | 399 | 0.1688767 | | | | | | | | |
| Chloromethane | 150 | 0.3887158 | 200 | 0.3704813 | | | | | | | | |
| 1-Chlorohexane | 150.3 | 2.01726 | 200.4 | 1.885388 | | | | | | | | |
| 2-Chlorotoluene | 150 | 2.239528 | 200 | 2.201793 | | | | | | | | |
| 4-Chlorotoluene | 150 | 2.466821 | 200 | 2.43551 | | | | | | | | |
| Cyclohexane | 150 | 0.7164013 | 200 | 0.6757709 | | | | | | | | |
| Dibromochloromethane | 150 | 0.6469215 | 200 | 0.6589571 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 150 | 0.1180717 | 200 | 0.1164974 | | | | | | | | |
| 1,2-Dibromoethane (EDB) | 150 | 0.5513408 | 200 | 0.5571805 | | | | | | | | |
| Dibromomethane | 150 | 0.1775397 | 200 | 0.1716395 | | | | | | | | |
| 1,2-Dichlorobenzene | 150 | 1.205745 | 200 | 1.236032 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 150 | 1.326823 | 200 | 1.310985 | | | | | | | | |
| 1,4-Dichlorobenzene | 150 | 1.329174 | 200 | 1.311361 | | | | | | | | |
| Dichlorodifluoromethane | 150 | 0.294192 | 200 | 0.2759141 | | | | | | | | |
| 1,1-Dichloroethane | 150 | 0.6166086 | 200 | 0.5947691 | | | | | | | | |
| 1,2-Dichloroethane | 150 | 0.3026457 | 200 | 0.3034343 | | | | | | | | |
| 1,1-Dichloroethene | 150 | 0.1785913 | 200 | ~~0.2416956~~ | | | | | | | | |
| cis-1,2-Dichloroethene | 150 | 0.3297915 | 200 | 0.3192484 | | | | | | | | |
| trans-1,2-Dichloroethene | 150 | 0.2978576 | 200 | 0.2889025 | | | | | | | | |
| 1,2-Dichloroethene (total) | 300 | 0.3138245 | 400 | 0.3040755 | | | | | | | | |
| 1,2-Dichloropropane | 150 | 0.3778939 | 200 | 0.3725401 | | | | | | | | |
| 1,3-Dichloropropane | 150 | 0.8986319 | 200 | 0.8784469 | | | | | | | | |
| 2,2-Dichloropropane | 150 | 0.3617797 | 200 | 0.3482468 | | | | | | | | |
| 1,1-Dichloropropene | 150 | 0.4099157 | 200 | 0.3932496 | | | | | | | | |
| cis-1,3-Dichloropropene | 150 | 0.469431 | 200 | 0.4523565 | | | | | | | | |
| trans-1,3-Dichloropropene | 150 | 0.8248023 | 200 | 0.802177 | | | | | | | | |
| Diisopropyl Ether | 150 | 1.730807 | 200 | 1.694548 | | | | | | | | |
| Ethylbenzene | 150 | 3.651297 | 200 | 3.573134 | | | | | | | | |
| Ethyl tert-Butyl Ether | 150 | 1.079763 | 200 | 1.057801 | | | | | | | | |
| Ethyl Methacrylate | 150 | 0.8710207 | 200 | 0.8578263 | | | | | | | | |
| Hexachlorobutadiene | 150 | 0.4984486 | 200 | 0.5033677 | | | | | | | | |
| 2-Hexanone | | | | | 4 | 0.5968604 | 10 | 0.6295112 | 20 | 0.5805845 | 40 | 0.6497723 |
| Iodomethane | 150 | 0.3500682 | 200 | ~~0.3742377~~ | | | | | | | | |
| Isopropylbenzene | 150 | 2.784682 | 200 | 2.727285 | | | | | | | | |
| p-Isopropyltoluene | 150 | 2.44157 | 200 | 2.332893 | | | | | | | | |
| Methylene chloride | 150 | 0.309667 | 200 | 0.3027675 | | | | | | | | |
| Methyl Acetate | 150 | 0.2510632 | 200 | ~~0.223989~~ | | | | | | | | |
| Methylcyclohexane | 150 | 0.5392906 | 200 | 0.5146507 | | | | | | | | |
| Naphthalene | 150 | 1.643224 | 200 | 1.657041 | | | | | | | | |
| Methyl Methacrylate | 150 | 0.4831825 | 200 | 0.4512382 | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | 4 | 0.352703 | 10 | 0.3709348 | 20 | 0.3733009 | 40 | 0.3939664 |
| Methyl t-Butyl Ether | 150 | 0.6360249 | 200 | 0.6284265 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 150 | 4.002939 | 200 | 3.703082 | | | | | | | | |
| Styrene | 150 | 2.111887 | 200 | 2.10262 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 150 | 0.6980061 | 200 | 0.6850432 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 150 | 0.7068497 | 200 | 0.7111916 | | | | | | | | |
| tert-Butyl alcohol | 750 | 2.532031E-02 | 1000 | 2.506596E-02 | | | | | | | | |
| Tetrachloroethene | 150 | 0.6992434 | 200 | 0.6850495 | | | | | | | | |
| Toluene | 150 | 1.706061 | 200 | 1.604325 | | | | | | | | |
| 1,2,3-Trichlorobenzene | 150 | 0.7278232 | 200 | 0.7516194 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 150 | 0.8125712 | 200 | 0.8332477 | | | | | | | | |
| 1,1,2-Trichloroethane | 150 | 0.4953458 | 200 | 0.4956092 | | | | | | | | |
| 1,1,1-Trichloroethane | 150 | 0.3669203 | 200 | 0.3572786 | | | | | | | | |
| Tetrahydrofuran | 150 | 0.1030719 | 200 | 9.688072E-02 | | | | | | | | |
| Trichloroethene | 150 | 0.3226635 | 200 | 0.3110056 | | | | | | | | |
| Trichlorofluoromethane | 150 | 0.4505598 | 200 | 0.3669905 | | | | | | | | |
| 1,2,3-Trichloropropane | 150 | 0.1471629 | 200 | 0.1448242 | | | | | | | | |
| 1,3,5-Trimethylbenzene | 150 | 2.367285 | 200 | 2.354633 | | | | | | | | |
| 1,2,4-Trimethylbenzene | 150 | 2.425007 | 200 | 2.350211 | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 150 | 0.2343912 | 200 | 0.2778142 | | | | | | | | |
| Vinyl chloride | 150 | 0.1769872 | 200 | 0.1586922 | | | | | | | | |
| m,p-Xylene | 300 | 2.402223 | 400 | 2.220402 | | | | | | | | |
| o-Xylene | 150 | 2.704775 | 200 | 2.61654 | | | | | | | | |
| Vinyl acetate | 299.8 | 0.4630155 | 399.8 | 0.4347041 | | | | | | | | |
| Xylenes (total) | 450 | 2.503073 | 600 | 2.352449 | | | | | | | | |
| Dibromofluoromethane | | | | | 30 | 0.2954943 | 40 | 0.2974247 | 50 | 0.2871887 | 60 | 0.2881603 |
| 1,2-Dichloroethane-d4 | | | | | 30 | 5.690591E-02 | 40 | 5.565845E-02 | 50 | 5.399013E-02 | 60 | 5.358577E-02 |
| Toluene-d8 | | | | | 30 | 2.140235 | 40 | 2.122804 | 50 | 2.025309 | 60 | 2.088032 |
| tert-Amyl alcohol | 750 | 2.609744E-02 | 1000 | 2.452795E-02 | | | | | | | | |
| tert-Amyl ethyl ether | 150 | 0.9427317 | 200 | 0.9137197 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 100 | 6.113527E-02 | 200 | 6.789272E-02 | 300 | 7.494916E-02 | 400 | ~~5.841085E-02~~ | | | | |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 70 | 0.7834868 | 30 | 0.8046764 | 30 | 0.8182797 | 30 | 0.7949773 | | | | |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 100 | 0.1426145 | 200 | 0.1579733 | 300 | 0.1625784 | 400 | 0.1390088 | | | | |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 100 | 0.5257543 | 200 | 0.5663449 | 300 | 0.5937655 | 400 | 0.5091155 | | | | |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 100 | 0.3187762 | 200 | 0.347223 | 300 | 0.3502062 | 400 | 0.3078423 | | | | |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 70 | 0.2942664 | 30 | 0.2949058 | 30 | 0.2928709 | 30 | 0.2896504 | | | | |
| 1,2-Dichloroethane-d4 | 70 | 5.499892E-02 | 30 | 5.289629E-02 | 30 | 5.266519E-02 | 30 | 5.167637E-02 | | | | |
| Toluene-d8 | 70 | 2.099996 | 30 | 2.097625 | 30 | 2.134783 | 30 | 2.118841 | | | | |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 208ICV1A.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1C08024 | Injection Date: | 02/09/11 |
| Lab Sample ID: | 1C08024-ICV1 | Injection Time: | 07:37 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 104.0 | 1.113159 | 1.157594 | | 4.0 | 20 |
| Methyl t-Butyl Ether | A | 200.0 | 214.0 | 0.6002451 | 0.6421448 | | 7.0 | 20 |
| Xylenes (total) | A | 300.0 | 315.0 | 2.345902 | 2.462529 | | 5.0 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.76 | 0.7951301 | 0.8154046 | | 2.5 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.19 | 0.2924952 | 0.2943467 | | 0.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 32.03 | 5.404713E-02 | 5.770697E-02 | | 6.8 | 20 |
| Toluene-d8 | A | 30.00 | 30.25 | 2.103453 | 2.120858 | | 0.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0209icv2.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1C08024 | Injection Date: | 02/09/11 |
| Lab Sample ID: | 1C08024-ICV2 | Injection Time: | 09:08 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Ethylbenzene | A | 50.00 | 0.000 | 3.20803 | | | | 20 |
| Toluene | A | 50.00 | 0.000 | 1.598242 | | | | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10207 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10207-TUN1 | 0411TUN1.D | 04/11/11 10:06 |
| Calibration Check | 1D10207-CCV1 | 0411CCV1.D | 04/11/11 11:53 |
| LCS | 1D11015-BS1 | 0411LS1.D | 04/11/11 12:28 |
| Blank | 1D11015-BLK1 | 0411BL1.D | 04/11/11 13:46 |
| 05-SS-038-0204 | 1104084-04 | 0408404.D | 04/11/11 14:11 |
| 05-SS-043-0204 | 1104084-10 | 0408410.D | 04/11/11 14:37 |
| 05-SS-044-0204 | 1104084-11 | 0408411.D | 04/11/11 15:03 |
| 05-SS-038-0204 | 1D11015-MS1 | 0408404M.D | 04/11/11 15:28 |
| 05-SS-038-0204 | 1D11015-MSD1 | 0408404S.D | 04/11/11 15:54 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0411TUN1.D | Injection Date: | 04/11/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 10:06 |
| Sequence: | 1D10207 | Lab Sample ID: | 1D10207-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 27.1 | PASS |
| 75 | 30 - 60% of 95 | 46.9 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.79 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 69.6 | PASS |
| 175 | 5 - 9% of 174 | 7.79 | PASS |
| 176 | 95 - 101% of 174 | 95.3 | PASS |
| 177 | 5 - 9% of 176 | 6.62 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0411CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D10207 | Injection Date: | 04/11/11 |
| Lab Sample ID: | 1D10207-CCV1 | Injection Time: | 11:53 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 85.92 | 1.113159 | 0.9564674 | | -14.1 | 20 |
| Ethylbenzene | A | 100.0 | 102.8 | 3.20803 | 3.29917 | | 2.8 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 98.71 | 0.6002451 | 0.5925211 | | -1.3 | 20 |
| Toluene | A | 100.0 | 96.78 | 1.598242 | 1.546845 | | -3.2 | 20 |
| Xylenes (total) | A | 300.0 | 304.9 | 2.345902 | 2.384851 | | 1.7 | 20 |
| Bromofluorobenzene | A | 30.00 | 35.30 | 0.7951301 | 0.9355096 | | 17.7 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.31 | 0.2924952 | 0.2955548 | | 1.0 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 29.80 | 5.404713E-02 | 0.0536968 | | -0.6 | 20 |
| Toluene-d8 | A | 30.00 | 35.36 | 2.103453 | 2.479597 | | 17.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10402 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10402-TUN1 | 0413TUN1.D | 04/13/11 07:41 |
| Calibration Check | 1D10402-CCV1 | 0413CCV1.D | 04/13/11 08:06 |
| LCS | 1D13005-BS1 | 0413LS1.D | 04/13/11 08:42 |
| Blank | 1D13005-BLK1 | 0413BL1.D | 04/13/11 09:55 |
| 05-SS-045-0204 | 1104107-01 | 0410701.D | 04/13/11 13:11 |
| 05-SS-045-0204-D | 1104107-02 | 0410702.D | 04/13/11 13:36 |
| 05-SS-046-0204 | 1104107-03 | 0410703.D | 04/13/11 14:00 |
| 05-SS-047-0204 | 1104107-04 | 0410704.D | 04/13/11 14:25 |
| 05-SS-048-0204 | 1104107-05 | 0410705.D | 04/13/11 14:50 |
| 05-SS-050-0204 | 1104107-07 | 0410707.D | 04/13/11 15:40 |
| 05-SS-046-0204 | 1D13005-MS2 | 0410703M.D | 04/13/11 16:54 |
| 05-SS-046-0204 | 1D13005-MSD2 | 0410703S.D | 04/13/11 17:19 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0413TUN1.D | Injection Date: | 04/13/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 07:41 |
| Sequence: | 1D10402 | Lab Sample ID: | 1D10402-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 27.5 | PASS |
| 75 | 30 - 60% of 95 | 47.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.49 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 62.5 | PASS |
| 175 | 5 - 9% of 174 | 7.42 | PASS |
| 176 | 95 - 101% of 174 | 95.2 | PASS |
| 177 | 5 - 9% of 176 | 7.04 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0413CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D10402 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10402-CCV1 | Injection Time: | 08:06 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 96.59 | 1.113159 | 1.075157 | | -3.4 | 20 |
| Ethylbenzene | A | 100.0 | 111.0 | 3.20803 | 3.560025 | | 11.0 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 104.6 | 0.6002451 | 0.6277648 | | 4.6 | 20 |
| Toluene | A | 100.0 | 106.5 | 1.598242 | 1.702322 | | 6.5 | 20 |
| Xylenes (total) | A | 300.0 | 331.2 | 2.345902 | 2.590719 | | 10.4 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.55 | 0.7951301 | 0.9158355 | | 15.2 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.96 | 0.2924952 | 0.3116172 | | 6.5 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 31.98 | 5.404713E-02 | 5.760992E-02 | | 6.6 | 20 |
| Toluene-d8 | A | 30.00 | 33.48 | 2.103453 | 2.347874 | | 11.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10507 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10507-TUN1 | 0414TUN1.D | 04/14/11 07:22 |
| Calibration Check | 1D10507-CCV1 | 0414CCV1.D | 04/14/11 07:47 |
| LCS | 1D14010-BS1 | ~~0414LS1.D~~ | 04/14/11 08:22 |
| Blank | 1D14010-BLK1 | 0414BL1.D | 04/14/11 09:35 |
| 05-SS-049-0204 | 1104107-06RE1 | 0410706R.D | 04/14/11 10:25 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0414TUN1.D | Injection Date: | 04/14/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 07:22 |
| Sequence: | 1D10507 | Lab Sample ID: | 1D10507-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 20.3 | PASS |
| 75 | 30 - 60% of 95 | 41.1 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 5.91 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 98.5 | PASS |
| 175 | 5 - 9% of 174 | 7.3 | PASS |
| 176 | 95 - 101% of 174 | 97 | PASS |
| 177 | 5 - 9% of 176 | 6.01 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 04I4CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D10507 | Injection Date: | 04/14/11 |
| Lab Sample ID: | 1D10507-CCV1 | Injection Time: | 07:47 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 87.21 | 1.113159 | 0.9707839 | | -12.8 | 20 |
| Ethylbenzene | A | 100.0 | 102.6 | 3.20803 | 3.293292 | | 2.7 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 95.36 | 0.6002451 | 0.5724094 | | -4.6 | 20 |
| Toluene | A | 100.0 | 96.76 | 1.598242 | 1.546467 | | -3.2 | 20 |
| Xylenes (total) | A | 300.0 | 307.6 | 2.345902 | 2.405509 | | 2.5 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.14 | 0.7951301 | 0.9049523 | | 13.8 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.79 | 0.2924952 | 0.3002403 | | 2.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.48 | 5.404713E-02 | 5.491416E-02 | | 1.6 | 20 |
| Toluene-d8 | A | 30.00 | 33.89 | 2.103453 | 2.376196 | | 13.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D11009 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-037-0204-D | 1104084-02 | 04/11/11 00:00 | 5.43 | 5.00 |
| 05-SS-037-0204 | 1104084-03 | 04/11/11 00:00 | 5.45 | 5.00 |
| 05-SS-039-0204 | 1104084-05 | 04/11/11 00:00 | 4.67 | 5.00 |
| 05-SS-040-0204 | 1104084-07 | 04/11/11 00:00 | 4.66 | 5.00 |
| 05-SS-041-0204 | 1104084-08 | 04/11/11 00:00 | 4.82 | 5.00 |
| 05-SS-042-0204 | 1104084-09 | 04/11/11 00:00 | 5.14 | 5.00 |
| Blank | 1D11009-BLK1 | 04/11/11 00:00 | 5.00 | 5.00 |
| LCS | 1D11009-BS1 | 04/11/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D11009-BLK1 | File ID: | 0411BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/11/11 08:43 |
| Solids: | | Preparation: | 5035 | Dilution: | |
| Batch: | 1D11009 | Sequence: | 1D10201 | Calibration: | 1098001 |
| Instrument: | MS-VOA3 | | | | |

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.02941 | 98.0 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03216 | 107 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.02716 | 90.5 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.02770 | 92.3 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D11009

Laboratory ID: 1D11009-BS1

Preparation: 5035

Initial/Final: 5 g / 5 mL

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.04568 | 91.4 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.04779 | 95.6 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04153 | 83.1 | 55 - 150 |
| Toluene | 0.05000 | 0.04627 | 92.5 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1461 | 97.4 | 75 - 125 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D11015 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-038-0204 | 1104084-04 | 04/11/11 00:00 | 4.18 | 5.00 |
| 05-SS-043-0204 | 1104084-10 | 04/11/11 00:00 | 5.71 | 5.00 |
| 05-SS-044-0204 | 1104084-11 | 04/11/11 00:00 | 5.58 | 5.00 |
| Blank | 1D11015-BLK1 | 04/11/11 00:00 | 5.00 | 5.00 |
| LCS | 1D11015-BS1 | 04/11/11 00:00 | 5.00 | 5.00 |
| 05-SS-038-0204 | 1D11015-MS1 | 04/11/11 00:00 | 5.08 | 5.00 |
| 05-SS-038-0204 | 1D11015-MSD1 | 04/11/11 00:00 | 4.95 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | | Laboratory ID: | 1D11015-BLK1 | File ID: | 0411BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/11/11 13:46 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D11015 Sequence: 1D10207 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.02944 | 98.1 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03021 | 101 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03002 | 100 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03005 | 100 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D11015 | Laboratory ID: | 1D11015-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.04236 | 84.7 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.04673 | 93.5 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04487 | 89.7 | 55 - 150 |
| Toluene | 0.05000 | 0.04697 | 93.9 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1468 | 97.8 | 75 - 125 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D13005 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-045-0204 | 1104107-01 | 04/13/11 00:00 | 4.51 | 5.00 |
| 05-SS-045-0204-D | 1104107-02 | 04/13/11 00:00 | 4.88 | 5.00 |
| 05-SS-046-0204 | 1104107-03 | 04/13/11 00:00 | 4.50 | 5.00 |
| 05-SS-047-0204 | 1104107-04 | 04/13/11 00:00 | 4.50 | 5.00 |
| 05-SS-048-0204 | 1104107-05 | 04/13/11 00:00 | 4.56 | 5.00 |
| 05-SS-050-0204 | 1104107-07 | 04/13/11 00:00 | 4.90 | 5.00 |
| Blank | 1D13005-BLK1 | 04/13/11 00:00 | 5.00 | 5.00 |
| LCS | 1D13005-BS1 | 04/13/11 00:00 | 5.00 | 5.00 |
| 05-SS-046-0204 | 1D13005-MS2 | 04/13/11 00:00 | 4.89 | 5.00 |
| 05-SS-046-0204 | 1D13005-MSD2 | 04/13/11 00:00 | 4.47 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D13005-BLK1 | File ID: | 0413BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/13/11 09:55 |
| Solids: | | Preparation: | 5035 | Dilution: | |
| Batch: | 1D13005 | Sequence: | 1D10402 | Calibration: | 1081001 |
| Instrument: | MS-VOA6 | | | | |

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03127 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03118 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03204 | 107 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03039 | 101 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D13005 | Laboratory ID: | 1D13005-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.04580 | 91.6 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.04989 | 99.8 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04855 | 97.1 | 55 - 150 |
| Toluene | 0.05000 | 0.04900 | 98.0 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1516 | 101 | 75 - 125 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D14010 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-049-0204 | 1104107-06RE1 | 04/14/11 00:00 | 4.06 | 5.00 |
| Blank | 1D14010-BLK1 | 04/14/11 00:00 | 5.00 | 5.00 |
| LCS | 1D14010-BS1 | 04/14/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC | SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) | Project: NAS Pensacola CTO JM26 Saufley

Matrix: | Laboratory ID: 1D14010-BLK1 | File ID: 0414BL1.D

Sampled: | Prepared: | Analyzed: 04/14/11 09:35

Solids: | Preparation: 5035 | Dilution:

Batch: 1D14010 | Sequence: 1D10507 | Calibration: 1081001 | Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.02968 | 98.9 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03098 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.02901 | 96.7 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03042 | 101 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D14010 | Laboratory ID: | 1D14010-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.04000 | 0.03262 | 81.6 | 75 - 125 |
| Ethylbenzene | 0.04000 | 0.03547 | 88.7 | 75 - 125 |
| Methyl t-Butyl Ether | 0.04000 | 0.03484 | 87.1 | 55 - 150 |
| Toluene | 0.04000 | 0.03574 | 89.4 | 70 - 125 |
| Xylenes (total) | 0.1200 | 0.1115 | 92.9 | 75 - 125 |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010)

Sequence: 1C08402

Calibration: 1084001

SDG: CTOJM26_006

Project: NAS Pensacola CTO JM26 Saufley

Instrument: MS-VOA4

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08402-TUN1 | 0322TU1.D | 03/22/11 11:42 |
| Cal Standard | 1C08402-CAL1 | 0322CAL1.D | 03/22/11 12:12 |
| Cal Standard | 1C08402-CAL2 | 0322CAL2.D | 03/22/11 12:42 |
| Cal Standard | 1C08402-CAL3 | 0322CAL3.D | 03/22/11 13:11 |
| Cal Standard | 1C08402-CAL4 | 0322CAL4.D | 03/22/11 13:41 |
| Cal Standard | 1C08402-CAL5 | 0322CAL5.D | 03/22/11 14:11 |
| Cal Standard | 1C08402-CAL6 | 0322CAL6.D | 03/22/11 14:41 |
| Cal Standard | 1C08402-CAL7 | 0322CAL7.D | 03/22/11 15:10 |
| Cal Standard | 1C08402-CAL8 | 0322CAL8.D | 03/22/11 15:40 |
| Cal Standard | 1C08402-CAL9 | 0322CAL9.D | 03/22/11 16:10 |
| Initial Cal Check | 1C08402-ICV2 | 0322ICV2.D | 03/22/11 17:09 |
| Cal Standard | 1C08402-CALA | 0322CALA.D | 03/22/11 17:39 |
| Cal Standard | 1C08402-CALB | 0322CALB.D | 03/22/11 18:09 |
| Cal Standard | 1C08402-CALC | 0322CALC.D | 03/22/11 18:38 |
| Cal Standard | 1C08402-CALD | 0322CALD.D | 03/22/11 19:08 |
| Cal Standard | 1C08402-CALE | 0322CALE.D | 03/22/11 19:37 |
| Cal Standard | 1C08402-CALF | 0322CALF.D | 03/22/11 20:07 |
| Cal Standard | 1C08402-CALG | 0322CALG.D | 03/22/11 20:37 |
| Cal Standard | 1C08402-CALH | 0322CALH.D | 03/22/11 21:07 |
| Cal Standard | 1C08402-CALI | 0322CALI.D | 03/22/11 21:36 |
| MS Tune | 1C08402-TUN2 | 0324TU2.D | 03/24/11 11:41 |
| Cal Standard | 1C08402-CALJ | 0324CALJ.D | 03/24/11 12:10 |
| Cal Standard | 1C08402-CALK | 0324CALK.D | 03/24/11 12:40 |
| Cal Standard | 1C08402-CALL | 0324CALL.D | 03/24/11 13:09 |
| Cal Standard | 1C08402-CALM | 0324CALM.D | 03/24/11 13:39 |
| Cal Standard | 1C08402-CALN | 0324CALN.D | 03/24/11 14:09 |
| Cal Standard | 1C08402-CALO | 0324CALO.D | 03/24/11 14:38 |
| Cal Standard | 1C08402-CALP | 0324CALP.D | 03/24/11 15:08 |
| Cal Standard | 1C08402-CALQ | 0324CALQ.D | 03/24/11 15:37 |
| Cal Standard | 1C08402-CALR | 0324CALR.D | 03/24/11 16:07 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0322TU1.D | Injection Date: | 03/22/11 |
| Instrument ID: | MS-VOA4 | Injection Time: | 11:42 |
| Sequence: | 1C08402 | Lab Sample ID: | 1C08402-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 17.8 | PASS |
| 75 | 30 - 60% of 95 | 40.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.26 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 78.8 | PASS |
| 175 | 5 - 9% of 174 | 8.17 | PASS |
| 176 | 95 - 101% of 174 | 95.6 | PASS |
| 177 | 5 - 9% of 176 | 7.34 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0324TU2.D | Injection Date: | 03/24/11 |
| Instrument ID: | MS-VOA4 | Injection Time: | 11:41 |
| Sequence: | 1C08402 | Lab Sample ID: | 1C08402-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 18.7 | PASS |
| 75 | 30 - 60% of 95 | 44 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.41 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 65.9 | PASS |
| 175 | 5 - 9% of 174 | 8.4 | PASS |
| 176 | 95 - 101% of 174 | 98.2 | PASS |
| 177 | 5 - 9% of 176 | 7.73 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1084001

Instrument: MS-VOA4

Matrix: Water

Calibration Dates: 3/22/11 12:12 3/24/11 16:07

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 7.581725E-02 | 12.9138 | 4.790222 | 0.049049 | | | 15 | |
| Acrolein | 0.0332781 | 17.15086 | 4.637778 | 0.1328997 | 0.9963037 | | 0.995 | |
| Acrylonitrile | 9.075655E-02 | 5.967214 | 5.377556 | 0.1635177 | | | 15 | |
| Benzene | 0.8598124 | 5.826665 | 11.32467 | 2.571886E-02 | | | 15 | |
| Bromobenzene | 0.7031528 | 3.794934 | 16.60044 | 0.0129509 | | | 15 | |
| Bromochloromethane | 0.1571874 | 10.14989 | 8.420222 | 8.362025E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7401368 | 21.15049 | 11.73244 | 4.981305E-02 | 0.9999557 | | 0.995 | |
| Bromodichloromethane | 0.2975079 | 3.338864 | 12.46467 | 3.137315E-02 | | | 15 | |
| Bromoform | 0.6079959 | 10.51022 | 15.90856 | 2.272561E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.1697082 | 8.151545 | 3.912111 | 8.414468E-02 | | | 15 | |
| Bromofluorobenzene | 0.9203766 | 6.208993 | 16.44933 | 2.376311E-02 | | | 15 | |
| n-Butylbenzene | 1.150237 | 5.314464 | 17.69211 | 1.288763E-02 | | | 15 | |
| 2-Butanone | 0.1038089 | 9.991007 | 7.8065 | 0.2294757 | | | 15 | |
| sec-Butylbenzene | 1.609253 | 4.427802 | 17.27867 | 7.963235E-03 | | | 15 | |
| tert-Butylbenzene | 1.130788 | 4.65364 | 17.12422 | 2.256859E-02 | | | 15 | |
| Carbon disulfide | 0.7726197 | 4.943713 | 5.798444 | 5.382923E-02 | | | 15 | |
| Carbon tetrachloride | 0.2679136 | 5.772236 | 11.26011 | 3.763941E-02 | | | 15 | |
| Chlorobenzene | 1.626743 | 6.247375 | 15.50867 | 1.878259E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.136575 | 12.25603 | 4.05075 | 7.761321E-02 | | | 15 | |
| Chloroform | 0.4102609 | 3.178745 | 8.548444 | 7.068972E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1487639 | 7.6876 | 13.11567 | 2.831501E-02 | | | 15 | |
| Chloromethane | 0.2276648 | 4.533361 | 3.351889 | 0.1851388 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.358226 | 8.38456 | 15.47567 | 1.868553E-02 | | | 15 | |
| 2-Chlorotoluene | 1.343142 | 4.69334 | 16.80522 | 1.699125E-02 | | | 15 | |
| 4-Chlorotoluene | 1.357899 | 8.127378 | 16.86222 | 0.0210047 | | | 15 | |
| Cyclohexane | 0.2868146 | 7.071416 | 11.10344 | 4.114454E-02 | | | 15 | |
| Dibromochloromethane | 0.7343881 | 7.37851 | 14.498 | 2.038201E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1573495 | 9.086748 | 17.999 | 1.942704E-02 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.6906692 | 6.011137 | 14.73144 | 2.734917E-02 | | | 15 | |
| Dibromomethane | 0.1768221 | 3.662959 | 12.26744 | 3.079701E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.056748 | 4.719013 | 17.66033 | 1.217516E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.094328 | 6.392817 | 17.351 | 1.702519E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.157104 | 11.35253 | 17.39611 | 2.310506E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.224461 | 7.777908 | 3.164444 | 0.1567193 | 0.9997794 | | 0.995 | |
| 1,1-Dichloroethane | 0.4233929 | 3.852676 | 6.929333 | 5.766121E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.2732127 | 4.979538 | 10.278 | 6.273465E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2255965 | 2.433535 | 5.305222 | 0.1119123 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2774913 | 4.918828 | 8.094667 | 5.817293E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2597497 | 3.773239 | 6.48 | 8.829922E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2686205 | 3.882943 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2331725 | 2.515092 | 12.33544 | 2.167003E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.9185418 | 5.439147 | 14.269 | 2.048293E-02 | | | 15 | |
| 2,2-Dichloropropane | 0.2659142 | 4.514366 | 8.743333 | 8.804082E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.2914419 | 5.221887 | 10.97411 | 0.0500267 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3482888 | 6.389209 | 13.35244 | 2.369358E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7769797 | 9.251968 | 13.86111 | 4.045963E-02 | | | 15 | |
| Diisopropyl Ether | 0.854156 | 5.083156 | 7.850333 | 8.818108E-02 | | | 15 | |
| Ethylbenzene | 2.383883 | 5.783688 | 15.674 | 1.935092E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.6745049 | 5.034467 | 8.780778 | 9.038613E-02 | | | 15 | |
| Ethyl Methacrylate | 0.7225211 | 13.76591 | 14.35022 | 2.645229E-02 | | | 15 | |
| Hexachlorobutadiene | 0.2603432 | 11.89493 | 19.34811 | 1.207234E-02 | | | 15 | |
| 2-Hexanone | 0.3551468 | 11.84673 | 14.46544 | 4.641752E-02 | | | 15 | |
| Iodomethane | 0.3888302 | 22.59284 | 5.351111 | 7.955871E-02 | 0.9989867 | | 0.995 | |
| Isopropylbenzene | 1.917265 | 6.129876 | 16.414 | 1.366668E-02 | | | 15 | |
| p-Isopropyltoluene | 1.255108 | 7.431759 | 17.39944 | 2.517309E-02 | | | 15 | |
| Methylene chloride | 0.2879524 | 5.828811 | 5.501333 | 9.345302E-02 | | | 15 | |
| Methyl Acetate | 0.20594 | 4.133282 | 5.540667 | 0.1281724 | | | 15 | |
| Methylcyclohexane | 0.2253353 | 2.575007 | 13.09289 | 3.933038E-02 | | | 15 | |
| Naphthalene | 1.417306 | 6.665996 | 19.32067 | 1.136041E-02 | | | 15 | |
| Methyl Methacrylate | 0.1836272 | 13.14786 | 12.78578 | 6.663479E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.2009551 | 7.228209 | 13.52167 | 0.0254952 | | | 15 | |
| Methyl t-Butyl Ether | 0.596171 | 5.584011 | 6.691778 | 7.990925E-02 | | | 15 | |
| n-Propylbenzene | 2.001293 | 6.77353 | 16.72956 | 0.0224652 | | | 15 | |
| Styrene | 1.638556 | 7.31779 | 16.08856 | 1.029711E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1084001 | Instrument: | MS-VOA4 | |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 | 3/24/11 16:07 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6466982 | 6.856913 | 16.15533 | 1.338021E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6133557 | 5.83761 | 15.45256 | 1.691596E-02 | | | 15 | |
| ~~tert-Butyl alcohol~~ | ~~2.344623E-02~~ | 7.278464 | 5.314889 | 0.1563845 | | | 15 | |
| Tetrachloroethene | 0.7309561 | 5.286144 | 14.91456 | 1.413254E-02 | | | 15 | |
| Toluene | 1.363325 | 6.6632 | 14.19011 | 1.729517E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.6001166 | 3.890404 | 19.527 | 1.278597E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.6583787 | 4.045397 | 19.09289 | 1.032949E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.5040212 | 5.521156 | 14.007 | 2.384727E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3016893 | 4.179094 | 10.529 | 4.744627E-02 | | | 15 | |
| Tetrahydrofuran | 6.538618E-02 | 5.631098 | 9.373143 | 0.1542967 | | | 15 | |
| Trichloroethene | 0.238184 | 3.372401 | 12.41433 | 0.019625 | | | 15 | |
| Trichlorofluoromethane | 0.339243 | 6.312842 | 4.652778 | 0.1167494 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1954897 | 6.78891 | 16.25944 | 0.0241375 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.339339 | 6.632903 | 16.927 | 0.0213542 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.433776 | 5.417154 | 17.20311 | 1.575506E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2354837 | 4.883444 | 5.569222 | 5.917367E-02 | | | 15 | |
| Vinyl chloride | 0.1940212 | 12.4411 | 3.516222 | 0.1544052 | | | CCC (20) | |
| m,p-Xylene | 1.742223 | 9.298898 | 15.832 | 1.472031E-02 | | | 15 | |
| o-Xylene | 1.91167 | 8.136781 | 16.14311 | 2.156804E-03 | | | 15 | |
| Vinyl acetate | 0.2689634 | 16.44564 | 7.1815 | 0.1221153 | 0.9992009 | | 0.995 | |
| Xylenes (total) | 1.798705 | 8.683755 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.3125949 | 2.153483 | 8.840222 | 4.694645E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 6.398003E-02 | 1.967422 | 10.07556 | 5.066511E-02 | | | 15 | |
| Toluene-d8 | 2.337958 | 4.966846 | 14.12222 | 1.973727E-02 | | | 15 | |
| ~~tert-Amyl alcohol~~ | 1.493481E-02 | 11.25626 | 9.834143 | 0.1522273 | | | 15 | |
| tert-Amyl ethyl ether | 0.5264827 | 6.213158 | 13.01056 | 7.748973E-03 | | | 15 | |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 2.501 | 3.978466E-02 | 5.002 | 3.928834E-02 | 10 | 4.253908E-02 | 25.01 | 2.731485E-02 | 50.02 | 3.140532E-02 | 250.1 | 3.036773E-02 |
| Acrylonitrile | 2.499 | 8.134307E-02 | 4.998 | 8.374894E-02 | 9.996 | 8.906298E-02 | 24.99 | 8.991062E-02 | 49.98 | 9.363115E-02 | 249.9 | 9.376586E-02 |
| Benzene | 0.5 | 0.7586241 | 1 | 0.8781914 | 2 | 0.8655253 | 5 | 0.8398939 | 10 | 0.9288837 | 50 | 0.8274038 |
| Bromobenzene | 0.5 | 0.7005351 | 1 | 0.6862941 | 2 | 0.696113 | 5 | 0.7248238 | 10 | 0.752053 | 50 | 0.699133 |
| Bromochloromethane | 0.5 | 0.1159098 | 1 | 0.1613588 | 2 | 0.1623518 | 5 | 0.1583009 | 10 | 0.1614814 | 50 | 0.1561146 |
| Tert-Amyl Methyl Ether | 0.5 | 1.121208 | 1 | 0.8368573 | 2 | 0.7559324 | 5 | 0.647324 | 10 | 0.6791465 | 50 | 0.6534345 |
| Bromodichloromethane | 0.5 | 0.2846097 | 1 | 0.2924256 | 2 | 0.2984444 | 5 | 0.2904109 | 10 | 0.316799 | 50 | 0.2911146 |
| Bromoform | 0.5 | 0.4777661 | 1 | 0.535263 | 2 | 0.589529 | 5 | 0.632814 | 10 | 0.6274487 | 50 | 0.6532824 |
| Bromomethane | 0.5 | 0.1754187 | 1 | 0.1489677 | 2 | 0.1637254 | 5 | 0.1613011 | 10 | 0.1626718 | 50 | 0.1589318 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 0.5 | 1.029237 | 1 | 1.123744 | 2 | 1.158631 | 5 | 1.174992 | 10 | 1.261893 | 50 | 1.150288 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 0.5 | 1.599558 | 1 | 1.635254 | 2 | 1.646141 | 5 | 1.587128 | 10 | 1.699572 | 50 | 1.696938 |
| tert-Butylbenzene | 0.5 | 1.09884 | 1 | 1.150408 | 2 | 1.116239 | 5 | 1.141005 | 10 | 1.220844 | 50 | 1.151853 |
| Carbon disulfide | 0.5 | 0.7540992 | 1 | 0.7488621 | 2 | 0.7263306 | 5 | 0.7129317 | 10 | 0.7911206 | 50 | 0.7953258 |
| Carbon tetrachloride | 0.5 | 0.2353846 | 1 | 0.2650143 | 2 | 0.2635427 | 5 | 0.2613502 | 10 | 0.2832567 | 50 | 0.2626678 |
| Chlorobenzene | 0.5 | 1.580499 | 1 | 1.671745 | 2 | 1.761321 | 5 | 1.622034 | 10 | 1.750736 | 50 | 1.667257 |
| Chloroethane | 0.5 | ~~9.552503E-02~~ | 1 | 0.1584096 | 2 | 0.126397 | 5 | 0.1358975 | 10 | 0.1258298 | 50 | 0.1093987 |
| Chloroform | 0.5 | 0.4165622 | 1 | 0.4226466 | 2 | 0.4088729 | 5 | 0.3899196 | 10 | 0.4173004 | 50 | 0.3875665 |
| 2-Chloroethyl vinyl ether | 0.9975 | 0.1309773 | 1.995 | 0.1277856 | 3.99 | 0.147565 | 9.975 | 0.1525375 | 19.95 | 0.15753 | 99.75 | 0.1553568 |
| Chloromethane | 0.5 | 0.2355675 | 1 | 0.2411466 | 2 | 0.2221735 | 5 | 0.2317445 | 10 | 0.2418858 | 50 | 0.214813 |
| 1-Chlorohexane | 0.501 | 1.431649 | 1.002 | 1.479964 | 2.004 | 1.411391 | 5.01 | 1.353161 | 10.02 | 1.468627 | 50.1 | 1.408228 |
| 2-Chlorotoluene | 0.5 | 1.377767 | 1 | 1.391655 | 2 | 1.396144 | 5 | 1.37348 | 10 | 1.401616 | 50 | 1.357754 |
| 4-Chlorotoluene | 0.5 | 1.390849 | 1 | 1.502916 | 2 | 1.230031 | 5 | 1.242967 | 10 | 1.46381 | 50 | 1.484338 |
| Cyclohexane | 0.5 | 0.2504675 | 1 | 0.2829837 | 2 | 0.2853949 | 5 | 0.2787363 | 10 | 0.3070252 | 50 | 0.3010098 |
| Dibromochloromethane | 0.5 | 0.6084631 | 1 | 0.7145368 | 2 | 0.7324282 | 5 | 0.734886 | 10 | 0.7709525 | 50 | 0.7886586 |
| 1,2-Dibromo-3-chloropropane | 0.5 | 0.1519836 | 1 | 0.1317006 | 2 | 0.1426782 | 5 | 0.1674328 | 10 | 0.1551393 | 50 | 0.1579157 |
| 1,2-Dibromoethane (EDB) | 0.5 | 0.59293 | 1 | 0.7172824 | 2 | 0.6972445 | 5 | 0.6967422 | 10 | 0.7028874 | 50 | 0.7238102 |
| Dibromomethane | 0.5 | 0.1703911 | 1 | 0.1766076 | 2 | 0.1824526 | 5 | 0.1668216 | 10 | 0.1778592 | 50 | 0.1730374 |
| 1,2-Dichlorobenzene | 0.5 | 1.029339 | 1 | 1.005081 | 2 | 1.048027 | 5 | 1.142129 | 10 | 1.136355 | 50 | 1.037115 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 0.5 | 1.021571 | 1 | 1.167219 | 2 | 1.124415 | 5 | 1.119113 | 10 | 1.124312 | 50 | 1.055985 |
| 1,4-Dichlorobenzene | 0.5 | 1.282713 | 1 | 1.29941 | 2 | 1.153374 | 5 | 1.244397 | 10 | 1.248385 | 50 | 1.16395 |
| Dichlorodifluoromethane | 0.5 | 0.2061787 | 1 | 0.2032874 | 2 | 0.1969215 | 5 | 0.2275517 | 10 | 0.2409189 | 50 | 0.2321125 |
| 1,1-Dichloroethane | 0.5 | 0.3911955 | 1 | 0.4193088 | 2 | 0.4240859 | 5 | 0.4182349 | 10 | 0.4426926 | 50 | 0.4105168 |
| 1,2-Dichloroethane | 0.5 | 0.2516559 | 1 | 0.2691752 | 2 | 0.279328 | 5 | 0.2687808 | 10 | 0.2926154 | 50 | 0.2599156 |
| 1,1-Dichloroethene | 0.5 | 0.2225413 | 1 | 0.2167301 | 2 | 0.2237074 | 5 | 0.2274073 | 10 | 0.2328805 | 50 | 0.2194557 |
| cis-1,2-Dichloroethene | 0.5 | 0.2581461 | 1 | 0.2691066 | 2 | 0.278252 | 5 | 0.2609076 | 10 | 0.2857993 | 50 | 0.2709842 |
| trans-1,2-Dichloroethene | 0.5 | 0.2673787 | 1 | 0.2553209 | 2 | 0.2505504 | 5 | 0.2452359 | 10 | 0.2581267 | 50 | 0.2553254 |
| 1,2-Dichloroethene (total) | 1 | 0.2627624 | 2 | 0.2622137 | 4 | 0.2644012 | 10 | 0.2530718 | 20 | 0.271963 | 100 | 0.2631548 |
| 1,2-Dichloropropane | 0.5 | 0.2265634 | 1 | 0.2408951 | 2 | 0.2289615 | 5 | 0.2309572 | 10 | 0.2351792 | 50 | 0.2345344 |
| 1,3-Dichloropropane | 0.5 | 0.9783466 | 1 | 0.9612021 | 2 | 0.9414902 | 5 | 0.8645976 | 10 | 0.939351 | 50 | 0.9345523 |
| 2,2-Dichloropropane | 0.5 | 0.254581 | 1 | 0.245879 | 2 | 0.2829109 | 5 | 0.2684826 | 10 | 0.2810333 | 50 | 0.2671001 |
| 1,1-Dichloropropene | 0.5 | 0.2645906 | 1 | 0.2889506 | 2 | 0.281915 | 5 | 0.2786245 | 10 | 0.3073422 | 50 | 0.2880989 |
| cis-1,3-Dichloropropene | 0.5 | 0.3085595 | 1 | 0.3288217 | 2 | 0.3324875 | 5 | 0.3412274 | 10 | 0.3634033 | 50 | 0.3561805 |
| trans-1,3-Dichloropropene | 0.5 | 0.6290931 | 1 | 0.7126024 | 2 | 0.7824522 | 5 | 0.7905787 | 10 | 0.86926 | 50 | 0.8300399 |
| Diisopropyl Ether | 0.5 | 0.7989823 | 1 | 0.8050336 | 2 | 0.8581992 | 5 | 0.8041667 | 10 | 0.8765601 | 50 | 0.8585423 |
| Ethylbenzene | 0.5 | 2.252794 | 1 | 2.364193 | 2 | 2.416147 | 5 | 2.378781 | 10 | 2.589711 | 50 | 2.505169 |
| Ethyl tert-Butyl Ether | 0.5 | 0.6255747 | 1 | 0.6447493 | 2 | 0.6447941 | 5 | 0.6478224 | 10 | 0.7058362 | 50 | 0.6845645 |
| Ethyl Methacrylate | 0.5 | 0.5220599 | 1 | 0.6329182 | 2 | 0.7084983 | 5 | 0.7076852 | 10 | 0.7265532 | 50 | 0.8481303 |
| Hexachlorobutadiene | 0.5 | 0.3304391 | 1 | 0.2775173 | 2 | 0.2232526 | 5 | 0.2524875 | 10 | 0.2493971 | 50 | 0.2439483 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 0.5 | 0.2639507 | 1 | 0.2843783 | 2 | 0.315031 | 5 | 0.3476377 | 10 | 0.4094468 | 50 | 0.4406804 |
| Isopropylbenzene | 0.5 | 1.83619 | 1 | 1.95585 | 2 | 2.073554 | 5 | 1.93552 | 10 | 1.97805 | 50 | 2.011397 |
| p-Isopropyltoluene | 0.5 | 1.311331 | 1 | 1.264953 | 2 | 1.292451 | 5 | 1.289825 | 10 | 1.407319 | 50 | 1.277777 |
| Methylene chloride | 0.5 | 0.261894 | 1 | 0.3084975 | 2 | 0.2979636 | 5 | 0.2664654 | 10 | 0.3009639 | 50 | 0.283224 |
| Methyl Acetate | 0.5 | 0.2238211 | 1 | 0.2061451 | 2 | 0.2005044 | 5 | 0.1986867 | 10 | 0.2046743 | 50 | 0.1959311 |
| Methylcyclohexane | 0.5 | 0.2254208 | 1 | 0.215427 | 2 | 0.2268896 | 5 | 0.2202563 | 10 | 0.2319387 | 50 | 0.2209519 |
| Naphthalene | 0.5 | 1.334839 | 1 | 1.320486 | 2 | 1.283496 | 5 | 1.58624 | 10 | 1.423896 | 50 | 1.448621 |
| Methyl Methacrylate | 0.5 | 0.1579134 | 1 | 0.1386113 | 2 | 0.1741879 | 5 | 0.1739633 | 10 | 0.1913591 | 50 | 0.1995946 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 0.5 | 0.5364484 | 1 | 0.6012889 | 2 | 0.5755173 | 5 | 0.5589447 | 10 | 0.6255618 | 50 | 0.5920784 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 0.5 | 1.883186 | 1 | 1.988645 | 2 | 2.015284 | 5 | 2.060088 | 10 | 2.292267 | 50 | 2.07247 |
| Styrene | 0.5 | 1.426988 | 1 | 1.635366 | 2 | 1.70666 | 5 | 1.72561 | 10 | 1.764601 | 50 | 1.712829 |
| 1,1,2,2-Tetrachloroethane | 0.5 | 0.5822802 | 1 | 0.6330158 | 2 | 0.680368 | 5 | 0.7209317 | 10 | 0.6939088 | 50 | 0.6365883 |
| 1,1,1,2-Tetrachloroethane | 0.5 | 0.5490003 | 1 | 0.6204383 | 2 | 0.6132115 | 5 | 0.6335661 | 10 | 0.6648395 | 50 | 0.6499643 |
| tert-Butyl alcohol | 2.5 | 2.649106E-02 | 5 | 2.456732E-02 | 10 | 2.060218E-02 | 25 | 2.472345E-02 | 50 | 2.254989E-02 | 250 | 2.200911E-02 |
| Tetrachloroethene | 0.5 | 0.6574897 | 1 | 0.7195288 | 2 | 0.7629126 | 5 | 0.7129749 | 10 | 0.749343 | 50 | 0.781376 |
| Toluene | 0.5 | 1.205519 | 1 | 1.42377 | 2 | 1.419532 | 5 | 1.414681 | 10 | 1.454001 | 50 | 1.421435 |
| 1,2,3-Trichlorobenzene | 0.5 | 0.6419698 | 1 | 0.5893934 | 2 | 0.5698125 | 5 | 0.6160588 | 10 | 0.6123299 | 50 | 0.5959386 |
| 1,2,4-Trichlorobenzene | 0.5 | 0.6840795 | 1 | 0.6780597 | 2 | 0.6297748 | 5 | 0.6530698 | 10 | 0.6718987 | 50 | 0.6362987 |
| 1,1,2-Trichloroethane | 0.5 | 0.4686647 | 1 | 0.5482421 | 2 | 0.5003638 | 5 | 0.4990536 | 10 | 0.5266286 | 50 | 0.517756 |
| 1,1,1-Trichloroethane | 0.5 | 0.2788051 | 1 | 0.2896594 | 2 | 0.3031147 | 5 | 0.2948506 | 10 | 0.3072852 | 50 | 0.3012649 |
| Tetrahydrofuran | 0.5 | | 1 | | 2 | 6.678139E-02 | 5 | 6.437321E-02 | 10 | 6.543814E-02 | 50 | 5.789592E-02 |
| Trichloroethene | 0.5 | 0.2241867 | 1 | 0.2450331 | 2 | 0.2377871 | 5 | 0.2354388 | 10 | 0.2519674 | 50 | 0.2407021 |
| Trichlorofluoromethane | 0.5 | 0.2973616 | 1 | 0.3197913 | 2 | 0.3446556 | 5 | 0.3338574 | 10 | 0.368817 | 50 | 0.3411787 |
| 1,2,3-Trichloropropane | 0.5 | 0.1810584 | 1 | 0.2076032 | 2 | 0.1963551 | 5 | 0.2043822 | 10 | 0.1856886 | 50 | 0.2079154 |
| 1,3,5-Trimethylbenzene | 0.5 | 1.215358 | 1 | 1.364011 | 2 | 1.278994 | 5 | 1.396251 | 10 | 1.468959 | 50 | 1.386281 |
| 1,2,4-Trimethylbenzene | 0.5 | 1.453401 | 1 | 1.411799 | 2 | 1.413276 | 5 | 1.509071 | 10 | 1.563578 | 50 | 1.461243 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 0.5 | 0.2113434 | 1 | 0.2265836 | 2 | 0.2416447 | 5 | 0.230086 | 10 | 0.2441297 | 50 | 0.2384583 |
| Vinyl chloride | 0.5 | 0.2243238 | 1 | 0.193754 | 2 | 0.1939568 | 5 | 0.207063 | 10 | 0.2294873 | 50 | 0.1924153 |
| m,p-Xylene | 1 | 1.659257 | 2 | 1.892764 | 4 | 1.826217 | 10 | 1.786361 | 20 | 1.848344 | 100 | 1.903752 |
| o-Xylene | 0.5 | 1.809735 | 1 | 2.034162 | 2 | 2.058157 | 5 | 1.980007 | 10 | 2.097219 | 50 | 1.904193 |
| Vinyl acetate | 0.9995 | | 1.999 | 0.1997637 | 3.998 | 0.2209446 | 9.995 | 0.2394112 | 19.99 | 0.2685764 | 99.95 | 0.2937542 |
| Xylenes (total) | 1.5 | 1.709417 | 3 | 1.939897 | 6 | 1.90353 | 15 | 1.850909 | 30 | 1.931302 | 150 | 1.903899 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 2.5 | | 5 | | 10 | 1.240618E-02 | 25 | 1.520676E-02 | 50 | 1.347849E-02 | 250 | 1.416173E-02 |
| tert-Amyl ethyl ether | 0.5 | 0.4587944 | 1 | 0.5134538 | 2 | 0.5245327 | 5 | 0.5013312 | 10 | 0.5533532 | 50 | 0.5301972 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1084001
Instrument: MS-VOA4
Matrix: Water
Calibration Dates: 3/22/11 12:12 3/24/11 16:07

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | 1 | 9.676416E-02 | 2 | 8.053093E-02 | 4 | 8.420424E-02 |
| Acrolein | 500.2 | 3.173887E-02 | 750.3 | 2.937506E-02 | 1000 | 2.768902E-02 | | | | | | |
| Acrylonitrile | 499.8 | 9.864455E-02 | 749.7 | 9.294596E-02 | 999.6 | 9.375583E-02 | | | | | | |
| Benzene | 100 | 0.9144761 | 150 | 0.873771 | 200 | 0.8515421 | | | | | | |
| Bromobenzene | 100 | 0.7048626 | 150 | 0.6539573 | 200 | 0.7106032 | | | | | | |
| Bromochloromethane | 100 | 0.1693457 | 150 | 0.1644463 | 200 | 0.1653773 | | | | | | |
| Tert-Amyl Methyl Ether | 100 | 0.6547025 | 150 | 0.6530024 | 200 | 0.6596239 | | | | | | |
| Bromodichloromethane | 100 | 0.3080737 | 150 | 0.3010907 | 200 | 0.2946025 | | | | | | |
| Bromoform | 100 | 0.6799253 | 150 | 0.6434859 | 200 | 0.6324485 | | | | | | |
| Bromomethane | 100 | 0.1832905 | 150 | 0.1817661 | 200 | 0.1913007 | | | | | | |
| Bromofluorobenzene | | | | | | | 30 | 0.9635724 | 30 | 0.9440623 | 40 | 0.8912567 |
| n-Butylbenzene | 100 | 1.16328 | 150 | 1.12078 | 200 | 1.169286 | | | | | | |
| 2-Butanone | | | | | | | 1 | | 2 | 8.254808E-02 | 4 | 9.520534E-02 |
| sec-Butylbenzene | 100 | 1.5481 | 150 | 1.474173 | 200 | 1.596414 | | | | | | |
| tert-Butylbenzene | 100 | 1.153988 | 150 | 1.024961 | 200 | 1.118953 | | | | | | |
| Carbon disulfide | 100 | 0.8193305 | 150 | 0.7928191 | 200 | 0.8127577 | | | | | | |
| Carbon tetrachloride | 100 | 0.2859138 | 150 | 0.2731241 | 200 | 0.2809683 | | | | | | |
| Chlorobenzene | 100 | 1.622015 | 150 | 1.511716 | 200 | 1.453362 | | | | | | |
| Chloroethane | 100 | 0.1427324 | 150 | 0.135294 | 200 | 0.1586412 | | | | | | |
| Chloroform | 100 | 0.4194242 | 150 | 0.4096553 | 200 | 0.4204004 | | | | | | |
| 2-Chloroethyl vinyl ether | 199.5 | 0.1581696 | 299.2 | 0.1542038 | 399 | 0.1547493 | | | | | | |
| Chloromethane | 100 | 0.2250998 | 150 | 0.2159445 | 200 | 0.2206076 | | | | | | |
| 1-Chlorohexane | 100.2 | 1.3071 | 150.3 | 1.206912 | 200.4 | 1.157005 | | | | | | |
| 2-Chlorotoluene | 100 | 1.268256 | 150 | 1.290035 | 200 | 1.231573 | | | | | | |
| 4-Chlorotoluene | 100 | 1.300482 | 150 | 1.235023 | 200 | 1.370671 | | | | | | |
| Cyclohexane | 100 | 0.3048506 | 150 | 0.2636526 | 200 | 0.3072111 | | | | | | |
| Dibromochloromethane | 100 | 0.7861455 | 150 | 0.7252525 | 200 | 0.7481696 | | | | | | |
| 1,2-Dibromo-3-chloropropane | 100 | 0.1678492 | 150 | 0.161815 | 200 | 0.1796314 | | | | | | |
| 1,2-Dibromoethane (EDB) | 100 | 0.732817 | 150 | 0.6772909 | 200 | 0.6750182 | | | | | | |
| Dibromomethane | 100 | 0.1883577 | 150 | 0.175534 | 200 | 0.1803374 | | | | | | |
| 1,2-Dichlorobenzene | 100 | 1.052326 | 150 | 1.00834 | 200 | 1.052024 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1084001
Instrument: MS-VOA4
Matrix: Water
Calibration Dates: 3/22/11 12:12 3/24/11 16:07

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 100 | 0.9958718 | 150 | 1.037701 | 200 | 1.202761 | | | | | | |
| 1,4-Dichlorobenzene | 100 | 1.116456 | 150 | 0.9717294 | 200 | 0.9335261 | | | | | | |
| Dichlorodifluoromethane | 100 | 0.2419189 | 150 | 0.2370702 | 200 | 0.2341892 | | | | | | |
| 1,1-Dichloroethane | 100 | 0.4404645 | 150 | 0.4261162 | 200 | 0.4379213 | | | | | | |
| 1,2-Dichloroethane | 100 | 0.2868896 | 150 | 0.2654326 | 200 | 0.2851214 | | | | | | |
| 1,1-Dichloroethene | 100 | 0.2316282 | 150 | 0.2260677 | 200 | 0.2299502 | | | | | | |
| cis-1,2-Dichloroethene | 100 | 0.2942959 | 150 | 0.2842498 | 200 | 0.2956806 | | | | | | |
| trans-1,2-Dichloroethene | 100 | 0.2714927 | 150 | 0.2592365 | 200 | 0.2750798 | | | | | | |
| 1,2-Dichloroethene (total) | 200 | 0.2828943 | 300 | 0.2717431 | 400 | 0.2853802 | | | | | | |
| 1,2-Dichloropropane | 100 | 0.2435348 | 150 | 0.2284693 | 200 | 0.2294573 | | | | | | |
| 1,3-Dichloropropane | 100 | 0.9483657 | 150 | 0.8463884 | 200 | 0.8525825 | | | | | | |
| 2,2-Dichloropropane | 100 | 0.272076 | 150 | 0.2617397 | 200 | 0.2594256 | | | | | | |
| 1,1-Dichloropropene | 100 | 0.3035675 | 150 | 0.2980514 | 200 | 0.3118361 | | | | | | |
| cis-1,3-Dichloropropene | 100 | 0.3795706 | 150 | 0.3571907 | 200 | 0.3671584 | | | | | | |
| trans-1,3-Dichloropropene | 100 | 0.8372163 | 150 | 0.7768983 | 200 | 0.7646759 | | | | | | |
| Diisopropyl Ether | 100 | 0.9255935 | 150 | 0.8720579 | 200 | 0.8882683 | | | | | | |
| Ethylbenzene | 100 | 2.503902 | 150 | 2.29151 | 200 | 2.152738 | | | | | | |
| Ethyl tert-Butyl Ether | 100 | 0.7071197 | 150 | 0.6920199 | 200 | 0.7180637 | | | | | | |
| Ethyl Methacrylate | 100 | 0.8239533 | 150 | 0.7833218 | 200 | 0.7495701 | | | | | | |
| Hexachlorobutadiene | 100 | 0.2462985 | 150 | 0.2450444 | 200 | 0.2747038 | | | | | | |
| 2-Hexanone | | | | | | | 1 | 0.2720755 | 2 | 0.3183527 | 4 | 0.3277497 |
| Iodomethane | 100 | 0.4865004 | 150 | 0.4643858 | 200 | 0.487461 | | | | | | |
| Isopropylbenzene | 100 | 1.970274 | 150 | 1.794816 | 200 | 1.699738 | | | | | | |
| p-Isopropyltoluene | 100 | 1.220845 | 150 | 1.111221 | 200 | 1.120249 | | | | | | |
| Methylene chloride | 100 | 0.3057949 | 150 | 0.2789757 | 200 | 0.2877929 | | | | | | |
| Methyl Acetate | 100 | 0.2141575 | 150 | 0.2030866 | 200 | 0.2064528 | | | | | | |
| Methylcyclohexane | 100 | 0.2291504 | 150 | 0.2245852 | 200 | 0.2333982 | | | | | | |
| Naphthalene | 100 | 1.451622 | 150 | 1.408555 | 200 | 1.498 | | | | | | |
| Methyl Methacrylate | 100 | 0.2071562 | 150 | 0.2020097 | 200 | 0.2078491 | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | 1 | 0.1792344 | 2 | 0.1803689 | 4 | 0.1937574 |
| Methyl t-Butyl Ether | 100 | 0.6277299 | 150 | 0.6282743 | 200 | 0.6196955 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 100 | 1.925682 | 150 | 1.825062 | 200 | 1.948952 | | | | | | |
| Styrene | 100 | 1.729849 | 150 | 1.548822 | 200 | 1.496283 | | | | | | |
| 1,1,2,2-Tetrachloroethane | 100 | 0.637664 | 150 | 0.5995633 | 200 | 0.6359632 | | | | | | |
| 1,1,1,2-Tetrachloroethane | 100 | 0.6194897 | 150 | 0.5858213 | 200 | 0.5838703 | | | | | | |
| tert-Butyl alcohol | 500 | 2.368182E-02 | 750 | 2.318323E-02 | 1000 | 2.320804E-02 | | | | | | |
| Tetrachloroethene | 100 | 0.7682393 | 150 | 0.7229287 | 200 | 0.7038116 | | | | | | |
| Toluene | 100 | 1.395961 | 150 | 1.249622 | 200 | 1.285406 | | | | | | |
| 1,2,3-Trichlorobenzene | 100 | 0.594589 | 150 | 0.5688162 | 200 | 0.6121416 | | | | | | |
| 1,2,4-Trichlorobenzene | 100 | 0.6353362 | 150 | 0.6339723 | 200 | 0.7029186 | | | | | | |
| 1,1,2-Trichloroethane | 100 | 0.5255027 | 150 | 0.4822233 | 200 | 0.4677561 | | | | | | |
| 1,1,1-Trichloroethane | 100 | 0.320252 | 150 | 0.3054736 | 200 | 0.3144986 | | | | | | |
| Tetrahydrofuran | 100 | 6.914901E-02 | 150 | 6.587517E-02 | 200 | 0.0681904 | | | | | | |
| Trichloroethene | 100 | 0.2414742 | 150 | 0.2362929 | 200 | 0.2307734 | | | | | | |
| Trichlorofluoromethane | 100 | 0.3628863 | 150 | 0.3389962 | 200 | 0.3456426 | | | | | | |
| 1,2,3-Trichloropropane | 100 | 0.2128739 | 150 | 0.1770287 | 200 | 0.1865017 | | | | | | |
| 1,3,5-Trimethylbenzene | 100 | 1.36684 | 150 | 1.200981 | 200 | 1.376375 | | | | | | |
| 1,2,4-Trimethylbenzene | 100 | 1.422455 | 150 | 1.290468 | 200 | 1.37869 | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 100 | 0.2495495 | 150 | 0.235193 | 200 | 0.2423654 | | | | | | |
| Vinyl chloride | 100 | 0.1832075 | 150 | 0.1635977 | 200 | 0.1583852 | | | | | | |
| m,p-Xylene | 200 | 1.779028 | 300 | 1.553914 | 400 | 1.430367 | | | | | | |
| o-Xylene | 100 | 1.945887 | 150 | 1.743427 | 200 | 1.632245 | | | | | | |
| Vinyl acetate | 199.9 | 0.3139199 | 299.8 | 0.3007406 | 399.8 | 0.3145967 | | | | | | |
| Xylenes (total) | 300 | 1.834648 | 450 | 1.617085 | 600 | 1.497659 | | | | | | |
| Dibromofluoromethane | | | | | | | 30 | 0.3164576 | 30 | 0.3129749 | 40 | 0.3138379 |
| 1,2-Dichloroethane-d4 | | | | | | | 30 | 6.460321E-02 | 30 | 6.214455E-02 | 40 | 6.335811E-02 |
| Toluene-d8 | | | | | | | 30 | 2.439073 | 30 | 2.385151 | 40 | 2.274829 |
| tert-Amyl alcohol | 500 | 1.632717E-02 | 750 | 1.575855E-02 | 1000 | 1.720482E-02 | | | | | | |
| tert-Amyl ethyl ether | 100 | 0.5694808 | 150 | 0.5426943 | 200 | 0.544507 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 10 | 7.283489E-02 | 20 | 7.330563E-02 | 100 | 6.809305E-02 | 200 | 6.894762E-02 | 300 | 0.0660034 | 400 | 7.167138E-02 |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 50 | 0.8681834 | 60 | 0.8721699 | 70 | 0.8257098 | 30 | 0.9926367 | 30 | 0.9617093 | 30 | 0.9640892 |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 10 | 0.1013737 | 20 | 0.1075082 | 100 | 0.1109828 | 200 | 0.1119231 | 300 | 0.1096259 | 400 | 0.1113044 |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 10 | 0.3524781 | 20 | 0.4038063 | 100 | 0.3706551 | 200 | 0.3914321 | 300 | 0.3798105 | 400 | 0.3799614 |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 10 | 0.1996308 | 20 | 0.2178405 | 100 | 0.2118568 | 200 | 0.2175817 | 300 | 0.1998162 | 400 | 0.2085091 |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1084001 | Instrument: | MS-VOA4 |
| Matrix: | Water | Calibration Dates: | 3/22/11 12:12 3/24/11 16:07 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 50 | 0.310604 | 60 | 0.3028994 | 70 | 0.3026789 | 30 | 0.3148825 | 30 | 0.3145714 | 30 | 0.3244476 |
| 1,2-Dichloroethane-d4 | 50 | 6.399363E-02 | 60 | 6.495948E-02 | 70 | 0.064001 | 30 | 6.562098E-02 | 30 | 6.507669E-02 | 30 | 6.206264E-02 |
| Toluene-d8 | 50 | 2.151386 | 60 | 2.249312 | 70 | 2.21533 | 30 | 2.468186 | 30 | 2.421018 | 30 | 2.437334 |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA4 | Calibration: | 1084001 |
| Lab File ID: | 0322ICV2.D | Calibration Date: | 03/22/11 12:12 |
| Sequence: | 1C08402 | Injection Date: | 03/22/11 |
| Lab Sample ID: | 1C08402-ICV2 | Injection Time: | 17:09 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acrolein | L | 500.2 | 523.7 | 0.0332781 | 3.038579E-02 | | 4.7 | 20 |
| Acrylonitrile | A | 499.8 | 532.3 | 9.075655E-02 | 0.0966281 | | 6.5 | 20 |
| Benzene | A | 100.0 | 102.3 | 0.8598124 | 0.8792613 | | 2.3 | 20 |
| Bromodichloromethane | A | 100.0 | 106.7 | 0.2975079 | 0.3173796 | | 6.7 | 20 |
| Bromoform | A | 100.0 | 107.1 | 0.6079959 | 0.6513613 | 0.1 | 7.1 | 20 |
| Bromomethane | A | 100.0 | 110.3 | 0.1697082 | 0.1872267 | | 10.3 | 20 |
| Carbon tetrachloride | A | 100.0 | 101.1 | 0.2679136 | 0.2708539 | | 1.1 | 20 |
| Chlorobenzene | A | 100.0 | 97.15 | 1.626743 | 1.580318 | 0.3 | -2.9 | 20 |
| Chloroethane | A | 100.0 | 101.3 | 0.136575 | 0.1384039 | | 1.3 | 20 |
| Chloroform | A | 100.0 | 99.30 | 0.4102609 | 0.4073781 | | -0.7 | 20 |
| 2-Chloroethyl vinyl ether | A | 199.5 | 234.0 | 0.1487639 | 0.1740828 | | 17.0 | 20 |
| Chloromethane | A | 100.0 | 106.3 | 0.2276648 | 0.241975 | 0.1 | 6.3 | 20 |
| Dibromochloromethane | A | 100.0 | 106.9 | 0.7343881 | 0.7849415 | | 6.9 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 99.79 | 0.6906692 | 0.6892165 | | -0.2 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 103.4 | 0.4233929 | 0.4377741 | 0.1 | 3.4 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 96.80 | 0.2732127 | 0.2644701 | | -3.2 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 108.3 | 0.2255965 | 0.2442522 | | 8.3 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 101.3 | 0.2774913 | 0.2811494 | | 1.3 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 104.9 | 0.2597497 | 0.2724359 | | 4.9 | 20 |
| 1,2-Dichloropropane | A | 100.0 | 101.7 | 0.2331725 | 0.2371705 | | 1.7 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 101.8 | 0.3482888 | 0.3545571 | | 1.8 | 20 |
| trans-1,3-Dichloropropene | A | 100.0 | 111.4 | 0.7769797 | 0.8658469 | | 11.4 | 20 |
| Ethylbenzene | A | 100.0 | 99.95 | 2.383883 | 2.3828 | | -0.05 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 98.38 | 0.596171 | 0.586524 | | -1.6 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 101.4 | 0.6466982 | 0.6555721 | 0.3 | 1.4 | 20 |
| Tetrachloroethene | A | 100.0 | 101.2 | 0.7309561 | 0.7395172 | | 1.2 | 20 |
| Toluene | A | 100.0 | 104.6 | 1.363325 | 1.426164 | | 4.6 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 100.6 | 0.6583787 | 0.6622195 | | 0.6 | 20 |
| 1,1,2-Trichloroethane | A | 100.0 | 94.83 | 0.5040212 | 0.4779758 | | -5.2 | 20 |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA4 | Calibration: | 1084001 |
| Lab File ID: | 0322ICV2.D | Calibration Date: | 03/22/11 12:12 |
| Sequence: | 1C08402 | Injection Date: | 03/22/11 |
| Lab Sample ID: | 1C08402-ICV2 | Injection Time: | 17:09 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,1,1-Trichloroethane | A | 100.0 | 100.2 | 0.3016893 | 0.3022898 | | 0.2 | 20 |
| Trichloroethene | A | 100.0 | 101.6 | 0.238184 | 0.2420924 | | 1.6 | 20 |
| Vinyl chloride | A | 100.0 | 97.74 | 0.1940212 | 0.1896324 | | -2.3 | 20 |
| Xylenes (total) | A | 300.0 | 287.7 | 1.798705 | 1.725422 | | -4.1 | 20 |
| Bromofluorobenzene | A | 30.00 | 31.02 | 0.9203766 | 0.9515789 | | 3.4 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.47 | 0.3125949 | 0.3174666 | | 1.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.59 | 6.398003E-02 | 6.524683E-02 | | 2.0 | 20 |
| Toluene-d8 | A | 30.00 | 32.22 | 2.337958 | 2.511083 | | 7.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10602 | Instrument: | MS-VOA4 |
| Calibration: | 1084001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10602-TUN1 | 0415TU1.D | 04/15/11 07:40 |
| Calibration Check | 1D10602-CCV1 | 0415CCV1.D | 04/15/11 08:09 |
| LCS | 1D15002-BS1 | 0415LCS1.D | 04/15/11 08:53 |
| Blank | 1D15002-BLK1 | 0415BL1.D | 04/15/11 10:21 |
| Trip Blank #9476 | 1104084-01 | 0408401.D | 04/15/11 10:57 |
| 05-MW-039 | 1104084-06 | 0408406.D | 04/15/11 12:55 |
| LCS Dup | 1D15002-BSD1 | 0415LD1.D | 04/15/11 19:21 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0415TU1.D | Injection Date: | 04/15/11 |
| Instrument ID: | MS-VOA4 | Injection Time: | 07:40 |
| Sequence: | 1D10602 | Lab Sample ID: | 1D10602-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 15.2 | PASS |
| 75 | 30 - 60% of 95 | 37.1 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.47 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 118 | PASS |
| 175 | 5 - 9% of 174 | 7.26 | PASS |
| 176 | 95 - 101% of 174 | 97.6 | PASS |
| 177 | 5 - 9% of 176 | 6.75 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA4 | Calibration: | 1084001 |
| Lab File ID: | 0415CCV1.D | Calibration Date: | 03/22/11 12:12 |
| Sequence: | 1D10602 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10602-CCV1 | Injection Time: | 08:09 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acrolein | L | 500.2 | 898.3 | 0.0332781 | 5.178796E-02 | | 79.6 | 20 * |
| Acrylonitrile | A | 499.8 | 535.8 | 9.075655E-02 | 0.0972641 | | 7.2 | 20 |
| Benzene | A | 100.0 | 103.7 | 0.8598124 | 0.8915629 | | 3.7 | 20 |
| Bromodichloromethane | A | 100.0 | 108.1 | 0.2975079 | 0.3216382 | | 8.1 | 20 |
| Bromoform | A | 100.0 | 98.33 | 0.6079959 | 0.5978698 | 0.1 | -1.7 | 20 |
| Bromomethane | A | 100.0 | 92.91 | 0.1697082 | 0.1576836 | | -7.1 | 20 |
| Carbon tetrachloride | A | 100.0 | 107.7 | 0.2679136 | 0.2884403 | | 7.7 | 20 |
| Chlorobenzene | A | 100.0 | 99.04 | 1.626743 | 1.611106 | 0.3 | -1.0 | 20 |
| Chloroethane | A | 100.0 | 105.5 | 0.136575 | 0.144121 | | 5.5 | 20 |
| Chloroform | A | 100.0 | 104.9 | 0.4102609 | 0.4305473 | | 4.9 | 20 |
| 2-Chloroethyl vinyl ether | A | 199.5 | 197.1 | 0.1487639 | 0.146606 | | -1.5 | 20 |
| Chloromethane | A | 100.0 | 99.67 | 0.2276648 | 0.2269061 | 0.1 | -0.3 | 20 |
| Dibromochloromethane | A | 100.0 | 104.4 | 0.7343881 | 0.7668245 | | 4.4 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 101.3 | 0.6906692 | 0.6997406 | | 1.3 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 108.1 | 0.4233929 | 0.4575858 | 0.1 | 8.1 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 108.1 | 0.2732127 | 0.2952712 | | 8.1 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 106.1 | 0.2255965 | 0.2393463 | | 6.1 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 109.1 | 0.2774913 | 0.3028591 | | 9.1 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 109.7 | 0.2597497 | 0.2848516 | | 9.7 | 20 |
| 1,2-Dichloropropane | A | 100.0 | 105.5 | 0.2331725 | 0.2459969 | | 5.5 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 107.4 | 0.3482888 | 0.3741933 | | 7.4 | 20 |
| trans-1,3-Dichloropropene | A | 100.0 | 104.4 | 0.7769797 | 0.8113865 | | 4.4 | 20 |
| Ethylbenzene | A | 100.0 | 102.3 | 2.383883 | 2.439042 | | 2.3 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 104.3 | 0.596171 | 0.6220888 | | 4.3 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 97.49 | 0.6466982 | 0.6304666 | 0.3 | -2.5 | 20 |
| Tetrachloroethene | A | 100.0 | 96.81 | 0.7309561 | 0.7076298 | | -3.2 | 20 |
| Toluene | A | 100.0 | 103.7 | 1.363325 | 1.413816 | | 3.7 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 85.93 | 0.6583787 | 0.5657604 | | -14.1 | 20 |
| 1,1,2-Trichloroethane | A | 100.0 | 101.2 | 0.5040212 | 0.5100749 | | 1.2 | 20 |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA4 | Calibration: | 1084001 |
| Lab File ID: | 0415CCV1.D | Calibration Date: | ~~03/22/11~~ 12:12 |
| Sequence: | 1D10602 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10602-CCV1 | Injection Time: | 08:09 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,1,1-Trichloroethane | A | 100.0 | 105.5 | 0.3016893 | 0.3183206 | | 5.5 | 20 |
| Trichloroethene | A | 100.0 | 106.6 | 0.238184 | 0.2540278 | | 6.7 | 20 |
| Vinyl chloride | A | 100.0 | 90.20 | 0.1940212 | 0.1750143 | | -9.8 | 20 |
| Xylenes (total) | A | 300.0 | 289.3 | 1.798705 | 1.735755 | | -3.5 | 20 |
| Bromofluorobenzene | A | 30.00 | 31.56 | 0.9203766 | 0.9684057 | | 5.2 | 20 |
| Dibromofluoromethane | A | 30.00 | 32.18 | 0.3125949 | 0.3353194 | | 7.3 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 29.45 | 6.398003E-02 | 6.281582E-02 | | -1.8 | 20 |
| Toluene-d8 | A | 30.00 | 30.61 | 2.337958 | 2.38522 | | 2.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10603 | Instrument: | MS-VOA4 |
| Calibration: | 1084001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10603-TUN1 | 0415TU1E.D | 04/15/11 19:51 |
| Calibration Check | 1D10603-CCV1 | 0415CCVE.D | 04/15/11 20:20 |
| LCS | 1D15009-BS1 | 0415LCSE.D | 04/15/11 20:50 |
| Blank | 1D15009-BLK1 | 0415BL1E.D | 04/15/11 22:18 |
| TRIP BLANK #9477 | 1104107-11 | 0410711.D | 04/15/11 23:17 |
| EQUIP BLANK 04 | 1104107-08 | 0410708.D | 04/15/11 23:47 |
| EQUIP BLANK 05 | 1104107-09 | 0410709.D | 04/16/11 00:16 |
| 05-MW-049 | 1104107-10 | 0410710.D | 04/16/11 00:46 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0415TU1E.D | Injection Date: | 04/15/11 |
| Instrument ID: | MS-VOA4 | Injection Time: | 19:51 |
| Sequence: | 1D10603 | Lab Sample ID: | 1D10603-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 20.5 | PASS |
| 75 | 30 - 60% of 95 | 43.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 8.26 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 61.8 | PASS |
| 175 | 5 - 9% of 174 | 7.86 | PASS |
| 176 | 95 - 101% of 174 | 96.6 | PASS |
| 177 | 5 - 9% of 176 | 6.96 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA4 | Calibration: | 1084001 |
| Lab File ID: | 0415CCVE.D | Calibration Date: | 03/22/11 12:12 |
| Sequence: | 1D10603 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10603-CCV1 | Injection Time: | 20:20 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acrolein | L | 500.2 | 790.6 | 0.0332781 | 4.563201E-02 | | 58.1 | 20 * |
| Acrylonitrile | A | 499.8 | 551.1 | 9.075655E-02 | 0.100039 | | 10.2 | 20 |
| Benzene | A | 100.0 | 106.9 | 0.8598124 | 0.9189452 | | 6.9 | 20 |
| Bromodichloromethane | A | 100.0 | 100.7 | 0.2975079 | 0.2996791 | | 0.7 | 20 |
| Bromoform | A | 100.0 | 103.7 | 0.6079959 | 0.6305348 | 0.1 | 3.7 | 20 |
| Bromomethane | A | 100.0 | 72.74 | 0.1697082 | 0.1234419 | | -27.3 | 20 * |
| Carbon tetrachloride | A | 100.0 | 108.7 | 0.2679136 | 0.2912566 | | 8.7 | 20 |
| Chlorobenzene | A | 100.0 | 105.9 | 1.626743 | 1.723177 | 0.3 | 5.9 | 20 |
| Chloroethane | A | 100.0 | 121.6 | 0.136575 | 0.1661086 | | 21.6 | 20 * |
| Chloroform | A | 100.0 | 108.8 | 0.4102609 | 0.4463245 | | 8.8 | 20 |
| 2-Chloroethyl vinyl ether | A | 199.5 | 202.3 | 0.1487639 | 0.1505087 | | 1.2 | 20 |
| Chloromethane | A | 100.0 | 93.59 | 0.2276648 | 0.2130758 | 0.1 | -6.4 | 20 |
| Dibromochloromethane | A | 100.0 | 109.3 | 0.7343881 | 0.8029187 | | 9.3 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 103.9 | 0.6906692 | 0.7176531 | | 3.9 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 112.9 | 0.4233929 | 0.4779653 | 0.1 | 12.9 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 112.4 | 0.2732127 | 0.3070634 | | 12.4 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 111.1 | 0.2255965 | 0.2506141 | | 11.1 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 106.7 | 0.2774913 | 0.2960705 | | 6.7 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 100.8 | 0.2597497 | 0.2618879 | | 0.8 | 20 |
| 1,2-Dichloropropane | A | 100.0 | 106.0 | 0.2331725 | 0.2472525 | | 6.0 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 108.7 | 0.3482888 | 0.3786944 | | 8.7 | 20 |
| trans-1,3-Dichloropropene | A | 100.0 | 108.9 | 0.7769797 | 0.8463751 | | 8.9 | 20 |
| Ethylbenzene | A | 100.0 | 106.7 | 2.383883 | 2.543446 | | 6.7 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 101.6 | 0.596171 | 0.6058814 | | 1.6 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 90.66 | 0.6466982 | 0.586328 | 0.3 | -9.3 | 20 |
| Tetrachloroethene | A | 100.0 | 101.6 | 0.7309561 | 0.7427029 | | 1.6 | 20 |
| Toluene | A | 100.0 | 110.5 | 1.363325 | 1.506895 | | 10.5 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 86.53 | 0.6583787 | 0.5696717 | | -13.5 | 20 |
| 1,1,2-Trichloroethane | A | 100.0 | 106.5 | 0.5040212 | 0.5367318 | | 6.5 | 20 |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA4 | Calibration: | 1084001 |
| Lab File ID: | 0415CCVE.D | Calibration Date: | 03/22/11 12:12 |
| Sequence: | 1D10603 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10603-CCV1 | Injection Time: | 20:20 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,1,1-Trichloroethane | A | 100.0 | 109.3 | 0.3016893 | 0.3296918 | | 9.3 | 20 |
| Trichloroethene | A | 100.0 | 100.1 | 0.238184 | 0.2385088 | | 0.1 | 20 |
| Vinyl chloride | A | 100.0 | 89.74 | 0.1940212 | 0.1741229 | | -10.3 | 20 |
| Xylenes (total) | A | 300.0 | 298.6 | 1.798705 | 1.787757 | | -0.6 | 20 |
| Bromofluorobenzene | A | 30.00 | 33.53 | 0.9203766 | 1.028656 | | 11.8 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.34 | 0.3125949 | 0.3265447 | | 4.5 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.49 | 6.398003E-02 | 0.0650271 | | 1.6 | 20 |
| Toluene-d8 | A | 30.00 | 32.22 | 2.337958 | 2.511152 | | 7.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D15009 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 04 | 1104107-08 | 04/15/11 00:00 | 5.00 | 5.00 |
| EQUIP BLANK 05 | 1104107-09 | 04/15/11 00:00 | 5.00 | 5.00 |
| 05-MW-049 | 1104107-10 | 04/15/11 00:00 | 5.00 | 5.00 |
| TRIP BLANK #9477 | 1104107-11 | 04/15/11 00:00 | 5.00 | 5.00 |
| Blank | 1D15009-BLK1 | 04/15/11 00:00 | 5.00 | 5.00 |
| LCS | 1D15009-BS1 | 04/15/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Matrix: Laboratory ID: 1D15009-BLK1 File ID: 0415BL1E.D

Sampled: Prepared: Analyzed: 04/15/11 22:18

Solids: Preparation: 5030B Dilution:

Batch: 1D15009 Sequence: 1D10603 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | X, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | Y, U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | X, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.72 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.18 | 104 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.57 | 102 | 70 - 120 | |
| Toluene-d8 | 30.00 | 29.75 | 99.2 | 85 - 120 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Water

Batch: 1D15009

Laboratory ID: 1D15009-BS1

Preparation: 5030B

Initial/Final: 5 mL / 5 mL

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acrolein | 250.1 | 381 | 152 | 10 - 200 |
| Acrylonitrile | 249.9 | 274 | 110 | 35 - 180 |
| Benzene | 50.00 | 51.9 | 104 | 80 - 120 |
| Bromodichloromethane | 50.00 | 54.0 | 108 | 75 - 120 |
| Bromoform | 50.00 | 47.3 | 94.5 | 70 - 130 |
| Bromomethane | 50.00 | 33.1 | 66.2 | 30 - 145 |
| Carbon tetrachloride | 50.00 | 49.7 | 99.3 | 65 - 140 |
| Chlorobenzene | 50.00 | 53.2 | 106 | 80 - 120 |
| Chloroethane | 50.00 | 52.8 | 106 | 60 - 135 |
| Chloroform | 50.00 | 51.8 | 104 | 65 - 135 |
| 2-Chloroethyl vinyl ether | 99.75 | 109 | 109 | 10 - 165 |
| Chloromethane | 50.00 | 46.1 | 92.3 | 40 - 125 |
| Dibromochloromethane | 50.00 | 51.7 | 103 | 60 - 135 |
| 1,2-Dibromoethane (EDB) | 50.00 | 50.2 | 100 | 80 - 120 |
| 1,1-Dichloroethane | 50.00 | 53.1 | 106 | 70 - 135 |
| 1,2-Dichloroethane | 50.00 | 52.7 | 105 | 70 - 130 |
| 1,1-Dichloroethene | 50.00 | 54.4 | 109 | 70 - 130 |
| cis-1,2-Dichloroethene | 50.00 | 53.6 | 107 | 70 - 125 |
| trans-1,2-Dichloroethene | 50.00 | 51.5 | 103 | 60 - 140 |
| 1,2-Dichloropropane | 50.00 | 52.7 | 105 | 75 - 125 |
| cis-1,3-Dichloropropene | 50.00 | 51.7 | 103 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.00 | 54.3 | 109 | 55 - 140 |
| Ethylbenzene | 50.00 | 49.6 | 99.2 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 49.2 | 98.5 | 65 - 125 |
| 1,1,2,2-Tetrachloroethane | 50.00 | 46.3 | 92.6 | 65 - 130 |
| Tetrachloroethene | 50.00 | 46.9 | 93.8 | 45 - 150 |
| Toluene | 50.00 | 53.0 | 106 | 75 - 120 |
| 1,2,4-Trichlorobenzene | 50.00 | 43.6 | 87.3 | 65 - 135 |
| 1,1,2-Trichloroethane | 50.00 | 48.8 | 97.5 | 75 - 125 |
| 1,1,1-Trichloroethane | 50.00 | 48.5 | 97.0 | 65 - 130 |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D15009 | Laboratory ID: | 1D15009-BS1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Trichloroethene | 50.00 | 52.5 | 105 | 70 - 125 |
| Vinyl chloride | 50.00 | 50.2 | 100 | 50 - 145 |
| Xylenes (total) | 150.0 | 150 | 100 | 75 - 130 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D15002 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| Trip Blank #9476 | 1104084-01 | 04/15/11 00:00 | 5.00 | 5.00 |
| 05-MW-039 | 1104084-06 | 04/15/11 00:00 | 5.00 | 5.00 |
| Blank | 1D15002-BLK1 | 04/15/11 00:00 | 5.00 | 5.00 |
| LCS | 1D15002-BS1 | 04/15/11 00:00 | 5.00 | 5.00 |
| LCS Dup | 1D15002-BSD1 | 04/15/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Matrix: Laboratory ID: 1D15002-BLK1 File ID: 0415BL1.D

Sampled: Prepared: Analyzed: 04/15/11 10:21

Solids: Preparation: 5030B Dilution:

Batch: 1D15002 Sequence: 1D10602 Calibration: 1084001 Instrument: MS-VOA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | X, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | Q, U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | Q, U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 29.55 | 98.5 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.74 | 102 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 31.03 | 103 | 70 - 120 | |
| Toluene-d8 | 30.00 | 28.87 | 96.2 | 85 - 120 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Matrix: Water
Batch: 1D15002
Laboratory ID: 1D15002-BS1
Preparation: 5030B
Initial/Final: 5 mL / 5 mL

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acrolein | 250.1 | 485 | 194 | 10 - 200 |
| Acrylonitrile | 249.9 | 283 | 113 | 35 - 180 |
| Benzene | 50.00 | 52.1 | 104 | 80 - 120 |
| Bromodichloromethane | 50.00 | 57.5 | 115 | 75 - 120 |
| Bromoform | 50.00 | 49.3 | 98.7 | 70 - 130 |
| Bromomethane | 50.00 | 46.2 | 92.4 | 30 - 145 |
| Carbon tetrachloride | 50.00 | 54.0 | 108 | 65 - 140 |
| Chlorobenzene | 50.00 | 54.1 | 108 | 80 - 120 |
| **Chloroethane** | **50.00** | **72.1** | **144** | **60 - 135** |
| Chloroform | 50.00 | 52.7 | 105 | 65 - 135 |
| 2-Chloroethyl vinyl ether | 99.75 | 109 | 110 | 10 - 165 |
| Chloromethane | 50.00 | 53.8 | 108 | 40 - 125 |
| Dibromochloromethane | 50.00 | 53.2 | 106 | 60 - 135 |
| 1,2-Dibromoethane (EDB) | 50.00 | 49.8 | 99.6 | 80 - 120 |
| 1,1-Dichloroethane | 50.00 | 54.3 | 109 | 70 - 135 |
| 1,2-Dichloroethane | 50.00 | 53.2 | 106 | 70 - 130 |
| 1,1-Dichloroethene | 50.00 | 58.0 | 116 | 70 - 130 |
| cis-1,2-Dichloroethene | 50.00 | 53.5 | 107 | 70 - 125 |
| trans-1,2-Dichloroethene | 50.00 | 55.6 | 111 | 60 - 140 |
| 1,2-Dichloropropane | 50.00 | 54.9 | 110 | 75 - 125 |
| cis-1,3-Dichloropropene | 50.00 | 53.0 | 106 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.00 | 54.9 | 110 | 55 - 140 |
| Ethylbenzene | 50.00 | 53.0 | 106 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 50.3 | 101 | 65 - 125 |
| 1,1,2,2-Tetrachloroethane | 50.00 | 46.8 | 93.7 | 65 - 130 |
| Tetrachloroethene | 50.00 | 49.8 | 99.7 | 45 - 150 |
| Toluene | 50.00 | 53.6 | 107 | 75 - 120 |
| 1,2,4-Trichlorobenzene | 50.00 | 44.3 | 88.5 | 65 - 135 |
| 1,1,2-Trichloroethane | 50.00 | 50.5 | 101 | 75 - 125 |
| 1,1,1-Trichloroethane | 50.00 | 52.7 | 105 | 65 - 130 |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D15002 | Laboratory ID: | 1D15002-BS1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Trichloroethene | 50.00 | 55.2 | 110 | 70 - 125 |
| Vinyl chloride | 50.00 | 52.6 | 105 | 50 - 145 |
| Xylenes (total) | 150.0 | 157 | 105 | 75 - 130 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acrolein | 250.1 | 461 | 184 | 4.93 | 30 | 10 - 200 |
| Acrylonitrile | 249.9 | 295 | 118 | 4.36 | 30 | 35 - 180 |
| Benzene | 50.00 | 54.3 | 109 | 4.21 | 30 | 80 - 120 |
| Bromodichloromethane | 50.00 | 59.4 | 119 | 3.29 | 30 | 75 - 120 |
| Bromoform | 50.00 | 53.2 | 106 | 7.49 | 30 | 70 - 130 |
| Bromomethane | 50.00 | 23.2 | 46.4 | 66.3 * | 30 | 30 - 145 |
| Carbon tetrachloride | 50.00 | 53.7 | 107 | 0.484 | 30 | 65 - 140 |
| Chlorobenzene | 50.00 | 54.5 | 109 | 0.765 | 30 | 80 - 120 |
| Chloroethane | 50.00 | 54.1 | 108 | 28.5 | 30 | 60 - 135 |
| Chloroform | 50.00 | 53.8 | 108 | 2.08 | 30 | 65 - 135 |
| 2-Chloroethyl vinyl ether | 99.75 | 119 | 119 | 8.03 | 30 | 10 - 165 |
| Chloromethane | 50.00 | 50.3 | 101 | 6.72 | 30 | 40 - 125 |
| Dibromochloromethane | 50.00 | 57.5 | 115 | 7.69 | 30 | 60 - 135 |
| 1,2-Dibromoethane (EDB) | 50.00 | 55.3 | 111 | 10.4 | 30 | 80 - 120 |
| 1,1-Dichloroethane | 50.00 | 57.1 | 114 | 5.00 | 30 | 70 - 135 |
| 1,2-Dichloroethane | 50.00 | 56.6 | 113 | 6.33 | 30 | 70 - 130 |
| 1,1-Dichloroethene | 50.00 | 56.3 | 113 | 2.94 | 30 | 70 - 130 |
| cis-1,2-Dichloroethene | 50.00 | 54.0 | 108 | 0.925 | 30 | 70 - 125 |
| trans-1,2-Dichloroethene | 50.00 | 54.6 | 109 | 1.88 | 30 | 60 - 140 |
| 1,2-Dichloropropane | 50.00 | 55.7 | 111 | 1.40 | 30 | 75 - 125 |
| cis-1,3-Dichloropropene | 50.00 | 54.8 | 110 | 3.33 | 30 | 70 - 130 |
| trans-1,3-Dichloropropene | 50.00 | 58.6 | 117 | 6.36 | 30 | 55 - 140 |
| Ethylbenzene | 50.00 | 55.1 | 110 | 3.84 | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 50.1 | 100 | 0.367 | 30 | 65 - 125 |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D15002 | Laboratory ID: | 1D15002-BSD1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 50.00 | 48.0 | 96.0 | 2.42 | 30 | 65 - 130 |
| Tetrachloroethene | 50.00 | 50.2 | 100 | 0.726 | 30 | 45 - 150 |
| Toluene | 50.00 | 57.1 | 114 | 6.23 | 30 | 75 - 120 |
| 1,2,4-Trichlorobenzene | 50.00 | 42.9 | 85.8 | 3.07 | 30 | 65 - 135 |
| 1,1,2-Trichloroethane | 50.00 | 53.2 | 106 | 5.18 | 30 | 75 - 125 |
| 1,1,1-Trichloroethane | 50.00 | 53.3 | 107 | 1.07 | 30 | 65 - 130 |
| Trichloroethene | 50.00 | 54.7 | 109 | 0.958 | 30 | 70 - 125 |
| Vinyl chloride | 50.00 | 54.0 | 108 | 2.57 | 30 | 50 - 145 |
| Xylenes (total) | 150.0 | 164 | 109 | 3.80 | 30 | 75 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8260B

**05-SS-038-0204**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D11015

% Solids: 91.60

Source Sample Name: **1104084-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 0.05372 | ND | 0.04944 | 92.0 | | 75 - 125 |
| Ethylbenzene | 0.05372 | ND | 0.05300 | 98.6 | | 75 - 125 |
| Methyl t-Butyl Ether | 0.05372 | ND | 0.05154 | 95.9 | | 55 - 150 |
| Toluene | 0.05372 | ND | 0.05227 | 97.3 | | 70 - 125 |
| Xylenes (total) | 0.1612 | ND | 0.1621 | 101 | | 75 - 125 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Benzene | 0.05513 | 0.04244 | 77.0 | 15.2 | | 30 | 75 - 125 |
| Ethylbenzene | 0.05513 | 0.04559 | 82.7 | 15.0 | | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05513 | 0.04715 | 85.5 | 8.88 | | 30 | 55 - 150 |
| Toluene | 0.05513 | 0.04615 | 83.7 | 12.4 | | 30 | 70 - 125 |
| Xylenes (total) | 0.1654 | 0.1418 | 85.7 | 13.4 | | 30 | 75 - 125 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8260B

05-SS-046-0204

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D13005

% Solids: 91.81

Source Sample Name: **1104107-03**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 0.05568 | ND | 0.05080 | 91.2 | | 75 - 125 |
| Ethylbenzene | 0.05568 | ND | 0.05202 | 93.4 | | 75 - 125 |
| Methyl t-Butyl Ether | 0.05568 | ND | 0.05456 | 98.0 | | 55 - 150 |
| Toluene | 0.05568 | ND | 0.05285 | 94.9 | | 70 - 125 |
| Xylenes (total) | 0.1671 | ND | 0.1589 | 95.1 | | 75 - 125 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Benzene | 0.06092 | 0.05542 | 91.0 | 8.68 | | 30 | 75 - 125 |
| Ethylbenzene | 0.06092 | 0.05726 | 94.0 | 9.60 | | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 0.06092 | 0.05671 | 93.1 | 3.85 | | 30 | 55 - 150 |
| Toluene | 0.06092 | 0.05794 | 95.1 | 9.20 | | 30 | 70 - 125 |
| Xylenes (total) | 0.1827 | 0.1766 | 96.6 | 10.5 | | 30 | 75 - 125 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10201 | Instrument: | MS-VOA3 |
| | | Calibration: | 1098001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10201-CCV1 ) ug/L** | | | | Lab File ID: 0411CCV1.D | | Analyzed: 04/11/11 07:02 | | |
| Bromofluorobenzene | 30.00 | 116 | 80 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 108 | 80 - 120 | 6.745 | 6.745 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 90.8 | 80 - 120 | 7.256 | 7.256 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 93.1 | 80 - 120 | 9.5 | 9.5 | 0.0000 | +/-1.000 | |
| **LCS (1D11009-BS1 ) mg/Kg wet** | | | | Lab File ID: 0411LS1.D | | Analyzed: 04/11/11 07:27 | | |
| Bromofluorobenzene | 0.03000 | 110 | 85 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 108 | 80 - 125 | 6.751 | 6.745 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 87.5 | 75 - 140 | 7.256 | 7.256 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 93.3 | 85 - 115 | 9.501 | 9.5 | 0.0010 | +/-1.000 | |
| **Blank (1D11009-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0411BL1.D | | Analyzed: 04/11/11 08:43 | | |
| Bromofluorobenzene | 0.03000 | 98.0 | 85 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 107 | 80 - 125 | 6.751 | 6.745 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 90.5 | 75 - 140 | 7.256 | 7.256 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 92.3 | 85 - 115 | 9.501 | 9.5 | 0.0010 | +/-1.000 | |
| **05-SS-037-0204-D (1104084-02 ) mg/Kg dry** | | | | Lab File ID: 0408402.D | | Analyzed: 04/11/11 15:39 | | |
| Bromofluorobenzene | 0.03247 | 101 | 85 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03247 | 107 | 80 - 125 | 6.751 | 6.745 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03247 | 91.7 | 75 - 140 | 7.262 | 7.256 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03247 | 94.0 | 85 - 115 | 9.501 | 9.5 | 0.0010 | +/-1.000 | |
| **05-SS-037-0204 (1104084-03 ) mg/Kg dry** | | | | Lab File ID: 0408403.D | | Analyzed: 04/11/11 16:05 | | |
| Bromofluorobenzene | 0.03101 | 100 | 85 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03101 | 107 | 80 - 125 | 6.751 | 6.745 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03101 | 94.3 | 75 - 140 | 7.256 | 7.256 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03101 | 95.7 | 85 - 115 | 9.501 | 9.5 | 0.0010 | +/-1.000 | |
| **05-SS-039-0204 (1104084-05 ) mg/Kg dry** | | | | Lab File ID: 0408405.D | | Analyzed: 04/11/11 16:31 | | |
| Bromofluorobenzene | 0.03482 | 104 | 85 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03482 | 110 | 80 - 125 | 6.751 | 6.745 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03482 | 91.9 | 75 - 140 | 7.256 | 7.256 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03482 | 97.4 | 85 - 115 | 9.5 | 9.5 | 0.0000 | +/-1.000 | |
| **05-SS-040-0204 (1104084-07 ) mg/Kg dry** | | | | Lab File ID: 0408407.D | | Analyzed: 04/11/11 16:56 | | |
| Bromofluorobenzene | 0.03479 | 103 | 85 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03479 | 111 | 80 - 125 | 6.751 | 6.745 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03479 | 97.9 | 75 - 140 | 7.256 | 7.256 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03479 | 95.8 | 85 - 115 | 9.5 | 9.5 | 0.0000 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10201 | Instrument: | MS-VOA3 |
| | | Calibration: | 1098001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-041-0204 (1104084-08 ) mg/Kg dry** | | | | Lab File ID: 0408408.D | | Analyzed: 04/11/11 17:22 | | |
| Bromofluorobenzene | 0.03341 | 109 | 85 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03341 | 106 | 80 - 125 | 6.751 | 6.745 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03341 | 92.6 | 75 - 140 | 7.256 | 7.256 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03341 | 98.9 | 85 - 115 | 9.501 | 9.5 | 0.0010 | +/-1.000 | |
| **05-SS-042-0204 (1104084-09 ) mg/Kg dry** | | | | Lab File ID: 0408409.D | | Analyzed: 04/11/11 17:47 | | |
| Bromofluorobenzene | 0.03224 | 99.1 | 85 - 120 | 12.147 | 12.147 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03224 | 112 | 80 - 125 | 6.751 | 6.745 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03224 | 95.2 | 75 - 140 | 7.256 | 7.256 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03224 | 91.0 | 85 - 115 | 9.501 | 9.5 | 0.0010 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10207 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10207-CCV1 ) ug/L** | | | | Lab File ID: 0411CCV1.D | | Analyzed: 04/11/11 11:53 | | |
| Bromofluorobenzene | 30.00 | 118 | 80 - 120 | 12.234 | 12.234 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 101 | 80 - 120 | 6.903 | 6.903 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 99.3 | 80 - 120 | 7.405 | 7.405 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 118 | 80 - 120 | 9.618 | 9.618 | 0.0000 | +/-1.000 | |
| **LCS (1D11015-BS1 ) mg/Kg wet** | | | | Lab File ID: 0411LS1.D | | Analyzed: 04/11/11 12:28 | | |
| Bromofluorobenzene | 0.03000 | 107 | 85 - 120 | 12.238 | 12.234 | 0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 100 | 80 - 125 | 6.917 | 6.903 | 0.0140 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 94.5 | 75 - 140 | 7.409 | 7.405 | 0.0040 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 107 | 85 - 115 | 9.622 | 9.618 | 0.0040 | +/-1.000 | |
| **Blank (1D11015-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0411BL1.D | | Analyzed: 04/11/11 13:46 | | |
| Bromofluorobenzene | 0.03000 | 98.1 | 85 - 120 | 12.243 | 12.234 | 0.0090 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 101 | 80 - 125 | 6.922 | 6.903 | 0.0190 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 100 | 75 - 140 | 7.424 | 7.405 | 0.0190 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 100 | 85 - 115 | 9.627 | 9.618 | 0.0090 | +/-1.000 | |
| **05-SS-038-0204 (1104084-04 ) mg/Kg dry** | | | | Lab File ID: 0408404.D | | Analyzed: 04/11/11 14:11 | | |
| Bromofluorobenzene | 0.03917 | 101 | 85 - 120 | 12.241 | 12.234 | 0.0070 | +/-1.000 | |
| Dibromofluoromethane | 0.03917 | 107 | 80 - 125 | 6.931 | 6.903 | 0.0280 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03917 | 101 | 75 - 140 | 7.422 | 7.405 | 0.0170 | +/-1.000 | |
| Toluene-d8 | 0.03917 | 101 | 85 - 115 | 9.625 | 9.618 | 0.0070 | +/-1.000 | |
| **05-SS-043-0204 (1104084-10 ) mg/Kg dry** | | | | Lab File ID: 0408410.D | | Analyzed: 04/11/11 14:37 | | |
| Bromofluorobenzene | 0.03100 | 101 | 85 - 120 | 12.246 | 12.234 | 0.0120 | +/-1.000 | |
| Dibromofluoromethane | 0.03100 | 101 | 80 - 125 | 6.935 | 6.903 | 0.0320 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03100 | 97.8 | 75 - 140 | 7.427 | 7.405 | 0.0220 | +/-1.000 | |
| Toluene-d8 | 0.03100 | 105 | 85 - 115 | 9.63 | 9.618 | 0.0120 | +/-1.000 | |
| **05-SS-044-0204 (1104084-11 ) mg/Kg dry** | | | | Lab File ID: 0408411.D | | Analyzed: 04/11/11 15:03 | | |
| Bromofluorobenzene | 0.03229 | 99.3 | 85 - 120 | 12.241 | 12.234 | 0.0070 | +/-1.000 | |
| Dibromofluoromethane | 0.03229 | 101 | 80 - 125 | 6.93 | 6.903 | 0.0270 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03229 | 94.1 | 75 - 140 | 7.422 | 7.405 | 0.0170 | +/-1.000 | |
| Toluene-d8 | 0.03229 | 104 | 85 - 115 | 9.625 | 9.618 | 0.0070 | +/-1.000 | |
| **Matrix Spike (1D11015-MS1 ) mg/Kg dry** | | | | Lab File ID: 0408404M.D | | Analyzed: 04/11/11 15:28 | | |
| Bromofluorobenzene | 0.03223 | 102 | 85 - 120 | 12.239 | 12.234 | 0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03223 | 99.9 | 80 - 125 | 6.928 | 6.903 | 0.0250 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03223 | 96.9 | 75 - 140 | 7.419 | 7.405 | 0.0140 | +/-1.000 | |
| Toluene-d8 | 0.03223 | 104 | 85 - 115 | 9.632 | 9.618 | 0.0140 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10207 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Matrix Spike Dup (1D11015-MSD1 ) mg/Kg dry** | | | | Lab File ID: 0408404S.D | | Analyzed: 04/11/11 15:54 | | |
| Bromofluorobenzene | 0.03308 | 105 | 85 - 120 | 12.242 | 12.234 | 0.0080 | +/-1.000 | |
| Dibromofluoromethane | 0.03308 | 103 | 80 - 125 | 6.932 | 6.903 | 0.0290 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03308 | 101 | 75 - 140 | 7.423 | 7.405 | 0.0180 | +/-1.000 | |
| Toluene-d8 | 0.03308 | 104 | 85 - 115 | 9.626 | 9.618 | 0.0080 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10402 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10402-CCV1 ) ug/L** | | | | Lab File ID: 0413CCV1.D | | Analyzed: 04/13/11 08:06 | | |
| Bromofluorobenzene | 30.00 | 115 | 80 - 120 | 12.228 | 12.228 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 107 | 80 - 120 | 6.917 | 6.917 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 107 | 80 - 120 | 7.409 | 7.409 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 112 | 80 - 120 | 9.621 | 9.621 | 0.0000 | +/-1.000 | |
| **LCS (1D13005-BS1 ) mg/Kg wet** | | | | Lab File ID: 0413LS1.D | | Analyzed: 04/13/11 08:42 | | |
| Bromofluorobenzene | 0.03000 | 107 | 85 - 120 | 12.228 | 12.228 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 106 | 80 - 125 | 6.907 | 6.917 | -0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 104 | 75 - 140 | 7.399 | 7.409 | -0.0100 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 105 | 85 - 115 | 9.612 | 9.621 | -0.0090 | +/-1.000 | |
| **Blank (1D13005-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0413BL1.D | | Analyzed: 04/13/11 09:55 | | |
| Bromofluorobenzene | 0.03000 | 104 | 85 - 120 | 12.232 | 12.228 | 0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 104 | 80 - 125 | 6.921 | 6.917 | 0.0040 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 107 | 75 - 140 | 7.413 | 7.409 | 0.0040 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 101 | 85 - 115 | 9.616 | 9.621 | -0.0050 | +/-1.000 | |
| **05-SS-045-0204 (1104107-01 ) mg/Kg dry** | | | | Lab File ID: 0410701.D | | Analyzed: 04/13/11 13:11 | | |
| Bromofluorobenzene | 0.03678 | 102 | 85 - 120 | 12.233 | 12.228 | 0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03678 | 102 | 80 - 125 | 6.913 | 6.917 | -0.0040 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03678 | 97.6 | 75 - 140 | 7.404 | 7.409 | -0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03678 | 101 | 85 - 115 | 9.617 | 9.621 | -0.0040 | +/-1.000 | |
| **05-SS-045-0204-D (1104107-02 ) mg/Kg dry** | | | | Lab File ID: 0410702.D | | Analyzed: 04/13/11 13:36 | | |
| Bromofluorobenzene | 0.03367 | 99.3 | 85 - 120 | 12.234 | 12.228 | 0.0060 | +/-1.000 | |
| Dibromofluoromethane | 0.03367 | 102 | 80 - 125 | 6.903 | 6.917 | -0.0140 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03367 | 99.3 | 75 - 140 | 7.405 | 7.409 | -0.0040 | +/-1.000 | |
| Toluene-d8 | 0.03367 | 103 | 85 - 115 | 9.617 | 9.621 | -0.0040 | +/-1.000 | |
| **05-SS-046-0204 (1104107-03 ) mg/Kg dry** | | | | Lab File ID: 0410703.D | | Analyzed: 04/13/11 14:00 | | |
| Bromofluorobenzene | 0.03631 | 102 | 85 - 120 | 12.229 | 12.228 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03631 | 102 | 80 - 125 | 6.918 | 6.917 | 0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03631 | 97.7 | 75 - 140 | 7.409 | 7.409 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03631 | 102 | 85 - 115 | 9.613 | 9.621 | -0.0080 | +/-1.000 | |
| **05-SS-047-0204 (1104107-04 ) mg/Kg dry** | | | | Lab File ID: 0410704.D | | Analyzed: 04/13/11 14:25 | | |
| Bromofluorobenzene | 0.03929 | 102 | 85 - 120 | 12.232 | 12.228 | 0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03929 | 104 | 80 - 125 | 6.911 | 6.917 | -0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03929 | 102 | 75 - 140 | 7.413 | 7.409 | 0.0040 | +/-1.000 | |
| Toluene-d8 | 0.03929 | 102 | 85 - 115 | 9.616 | 9.621 | -0.0050 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10402 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-048-0204 (1104107-05 ) mg/Kg dry** | | | | Lab File ID: 0410705.D | | Analyzed: 04/13/11 14:50 | | |
| Bromofluorobenzene | 0.03569 | 99.0 | 85 - 120 | 12.228 | 12.228 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03569 | 102 | 80 - 125 | 6.927 | 6.917 | 0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03569 | 97.0 | 75 - 140 | 7.419 | 7.409 | 0.0100 | +/-1.000 | |
| Toluene-d8 | 0.03569 | 102 | 85 - 115 | 9.622 | 9.621 | 0.0010 | +/-1.000 | |
| **05-SS-050-0204 (1104107-07 ) mg/Kg dry** | | | | Lab File ID: 0410707.D | | Analyzed: 04/13/11 15:40 | | |
| Bromofluorobenzene | 0.03414 | 100 | 85 - 120 | 12.228 | 12.228 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03414 | 103 | 80 - 125 | 6.917 | 6.917 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03414 | 96.5 | 75 - 140 | 7.409 | 7.409 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03414 | 102 | 85 - 115 | 9.622 | 9.621 | 0.0010 | +/-1.000 | |
| **Matrix Spike (1D13005-MS2 ) mg/Kg dry** | | | | Lab File ID: 0410703M.D | | Analyzed: 04/13/11 16:54 | | |
| Bromofluorobenzene | 0.03341 | 105 | 85 - 120 | 12.232 | 12.228 | 0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03341 | 106 | 80 - 125 | 6.912 | 6.917 | -0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03341 | 98.7 | 75 - 140 | 7.413 | 7.409 | 0.0040 | +/-1.000 | |
| Toluene-d8 | 0.03341 | 104 | 85 - 115 | 9.616 | 9.621 | -0.0050 | +/-1.000 | |
| **Matrix Spike Dup (1D13005-MSD2 ) mg/Kg dry** | | | | Lab File ID: 0410703S.D | | Analyzed: 04/13/11 17:19 | | |
| Bromofluorobenzene | 0.03655 | 100 | 85 - 120 | 12.234 | 12.228 | 0.0060 | +/-1.000 | |
| Dibromofluoromethane | 0.03655 | 106 | 80 - 125 | 6.913 | 6.917 | -0.0040 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03655 | 97.0 | 75 - 140 | 7.415 | 7.409 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03655 | 103 | 85 - 115 | 9.618 | 9.621 | -0.0030 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10507 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10507-CCV1 ) ug/L** | | | | Lab File ID: 0414CCV1.D | | Analyzed: 04/14/11 07:47 | | |
| Bromofluorobenzene | 30.00 | 114 | 80 - 120 | 12.233 | 12.233 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 103 | 80 - 120 | 6.922 | 6.922 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 102 | 80 - 120 | 7.413 | 7.413 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 113 | 80 - 120 | 9.617 | 9.617 | 0.0000 | +/-1.000 | |
| **LCS (1D14010-BS1 ) mg/Kg wet** | | | | Lab File ID: 0414LS1.D | | Analyzed: 04/14/11 08:22 | | |
| Bromofluorobenzene | 0.03000 | 103 | 85 - 120 | 12.233 | 12.233 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 103 | 80 - 125 | 6.912 | 6.922 | -0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 100 | 75 - 140 | 7.404 | 7.413 | -0.0090 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 104 | 85 - 115 | 9.617 | 9.617 | 0.0000 | +/-1.000 | |
| **Blank (1D14010-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0414BL1.D | | Analyzed: 04/14/11 09:35 | | |
| Bromofluorobenzene | 0.03000 | 98.9 | 85 - 120 | 12.235 | 12.233 | 0.0020 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 103 | 80 - 125 | 6.924 | 6.922 | 0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 96.7 | 75 - 140 | 7.416 | 7.413 | 0.0030 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 101 | 85 - 115 | 9.619 | 9.617 | 0.0020 | +/-1.000 | |
| **05-SS-049-0204 (1104107-06RE1 ) mg/Kg dry** | | | | Lab File ID: 0410706R.D | | Analyzed: 04/14/11 10:25 | | |
| Bromofluorobenzene | 0.04357 | 101 | 85 - 120 | 12.237 | 12.233 | 0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.04357 | 102 | 80 - 125 | 6.916 | 6.922 | -0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.04357 | 98.0 | 75 - 140 | 7.408 | 7.413 | -0.0050 | +/-1.000 | |
| Toluene-d8 | 0.04357 | 105 | 85 - 115 | 9.621 | 9.617 | 0.0040 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10602 | Instrument: | MS-VOA4 |
| | | Calibration: | 1084001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10602-CCV1 ) ug/L** | | | | Lab File ID: 0415CCV1.D | | Analyzed: 04/15/11 08:09 | | |
| Bromofluorobenzene | 30.00 | 105 | 80 - 120 | 16.45 | 16.45 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 107 | 80 - 120 | 8.844 | 8.844 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 98.2 | 80 - 120 | 10.087 | 10.087 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 102 | 80 - 120 | 14.121 | 14.121 | 0.0000 | +/-1.000 | |
| **LCS (1D15002-BS1 ) ug/L** | | | | Lab File ID: 0415LCS1.D | | Analyzed: 04/15/11 08:53 | | |
| Bromofluorobenzene | 30.00 | 107 | 75 - 120 | 16.451 | 16.45 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 111 | 85 - 115 | 8.845 | 8.844 | 0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 104 | 70 - 120 | 10.098 | 10.087 | 0.0110 | +/-1.000 | |
| Toluene-d8 | 30.00 | 107 | 85 - 120 | 14.123 | 14.121 | 0.0020 | +/-1.000 | |
| **Blank (1D15002-BLK1 ) ug/L** | | | | Lab File ID: 0415BL1.D | | Analyzed: 04/15/11 10:21 | | |
| Bromofluorobenzene | 30.00 | 98.5 | 75 - 120 | 16.451 | 16.45 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 102 | 85 - 115 | 8.835 | 8.844 | -0.0090 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 103 | 70 - 120 | 10.068 | 10.087 | -0.0190 | +/-1.000 | |
| Toluene-d8 | 30.00 | 96.2 | 85 - 120 | 14.123 | 14.121 | 0.0020 | +/-1.000 | |
| **Trip Blank #9476 (1104084-01 ) ug/L** | | | | Lab File ID: 0408401.D | | Analyzed: 04/15/11 10:57 | | |
| Bromofluorobenzene | 30.00 | 102 | 75 - 120 | 16.45 | 16.45 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 111 | 85 - 115 | 8.835 | 8.844 | -0.0090 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 106 | 70 - 120 | 10.068 | 10.087 | -0.0190 | +/-1.000 | |
| Toluene-d8 | 30.00 | 98.1 | 85 - 120 | 14.122 | 14.121 | 0.0010 | +/-1.000 | |
| **05-MW-039 (1104084-06 ) ug/L** | | | | Lab File ID: 0408406.D | | Analyzed: 04/15/11 12:55 | | |
| Bromofluorobenzene | 30.00 | 98.4 | 75 - 120 | 16.45 | 16.45 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 108 | 85 - 115 | 8.854 | 8.844 | 0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 107 | 70 - 120 | 10.088 | 10.087 | 0.0010 | +/-1.000 | |
| Toluene-d8 | 30.00 | 99.4 | 85 - 120 | 14.132 | 14.121 | 0.0110 | +/-1.000 | |
| **LCS Dup (1D15002-BSD1 ) ug/L** | | | | Lab File ID: 0415LD1.D | | Analyzed: 04/15/11 19:21 | | |
| Bromofluorobenzene | 30.00 | 110 | 75 - 120 | 16.46 | 16.45 | 0.0100 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 108 | 85 - 115 | 8.874 | 8.844 | 0.0300 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 103 | 70 - 120 | 10.107 | 10.087 | 0.0200 | +/-1.000 | |
| Toluene-d8 | 30.00 | 107 | 85 - 120 | 14.132 | 14.121 | 0.0110 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D10603
Instrument: MS-VOA4
Calibration: 1084001

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10603-CCV1 ) ug/L** | | | | Lab File ID: 0415CCVE.D | | Analyzed: 04/15/11 20:20 | | |
| Bromofluorobenzene | 30.00 | 112 | 80 - 120 | 16.459 | 16.459 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 104 | 80 - 120 | 8.873 | 8.873 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 102 | 80 - 120 | 10.106 | 10.106 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 107 | 80 - 120 | 14.141 | 14.141 | 0.0000 | +/-1.000 | |
| **LCS (1D15009-BS1 ) ug/L** | | | | Lab File ID: 0415LCSE.D | | Analyzed: 04/15/11 20:50 | | |
| Bromofluorobenzene | 30.00 | 104 | 75 - 120 | 16.464 | 16.459 | 0.0050 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 104 | 85 - 115 | 8.878 | 8.873 | 0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 102 | 70 - 120 | 10.111 | 10.106 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 30.00 | 105 | 85 - 120 | 14.136 | 14.141 | -0.0050 | +/-1.000 | |
| **Blank (1D15009-BLK1 ) ug/L** | | | | Lab File ID: 0415BL1E.D | | Analyzed: 04/15/11 22:18 | | |
| Bromofluorobenzene | 30.00 | 102 | 75 - 120 | 16.46 | 16.459 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 104 | 85 - 115 | 8.874 | 8.873 | 0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 102 | 70 - 120 | 10.127 | 10.106 | 0.0210 | +/-1.000 | |
| Toluene-d8 | 30.00 | 99.2 | 85 - 120 | 14.142 | 14.141 | 0.0010 | +/-1.000 | |
| **TRIP BLANK #9477 (1104107-11 ) ug/L** | | | | Lab File ID: 0410711.D | | Analyzed: 04/15/11 23:17 | | |
| Bromofluorobenzene | 30.00 | 99.4 | 75 - 120 | 16.465 | 16.459 | 0.0060 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 106 | 85 - 115 | 8.879 | 8.873 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 99.9 | 70 - 120 | 10.112 | 10.106 | 0.0060 | +/-1.000 | |
| Toluene-d8 | 30.00 | 98.4 | 85 - 120 | 14.137 | 14.141 | -0.0040 | +/-1.000 | |
| **EQUIP BLANK 04 (1104107-08 ) ug/L** | | | | Lab File ID: 0410708.D | | Analyzed: 04/15/11 23:47 | | |
| Bromofluorobenzene | 30.00 | 103 | 75 - 120 | 16.46 | 16.459 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 104 | 85 - 115 | 8.874 | 8.873 | 0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 102 | 70 - 120 | 10.117 | 10.106 | 0.0110 | +/-1.000 | |
| Toluene-d8 | 30.00 | 103 | 85 - 120 | 14.142 | 14.141 | 0.0010 | +/-1.000 | |
| **EQUIP BLANK 05 (1104107-09 ) ug/L** | | | | Lab File ID: 0410709.D | | Analyzed: 04/16/11 00:16 | | |
| Bromofluorobenzene | 30.00 | 99.5 | 75 - 120 | 16.456 | 16.459 | -0.0030 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 108 | 85 - 115 | 8.88 | 8.873 | 0.0070 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 104 | 70 - 120 | 10.113 | 10.106 | 0.0070 | +/-1.000 | |
| Toluene-d8 | 30.00 | 98.0 | 85 - 120 | 14.138 | 14.141 | -0.0030 | +/-1.000 | |
| **05-MW-049 (1104107-10 ) ug/L** | | | | Lab File ID: 0410710.D | | Analyzed: 04/16/11 00:46 | | |
| Bromofluorobenzene | 30.00 | 101 | 75 - 120 | 16.463 | 16.459 | 0.0040 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 110 | 85 - 115 | 8.867 | 8.873 | -0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 103 | 70 - 120 | 10.11 | 10.106 | 0.0040 | +/-1.000 | |
| Toluene-d8 | 30.00 | 98.1 | 85 - 120 | 14.135 | 14.141 | -0.0060 | +/-1.000 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10201 | Instrument: | MS-VOA3 |
| | | Calibration: | 1098001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10201-CCV1 )** | | | Lab File ID: 0411CCV1.D | | | Analyzed: 04/11/11 07:02 | | | |
| Fluorobenzene | 535800 | 7.785 | 647965 | 7.791 | 83 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 299001 | 10.942 | 343860 | 10.948 | 87 | 50 - 200 | -0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 406386 | 13.357 | 470927 | 13.357 | 86 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS (1D11009-BS1 )** | | | Lab File ID: 0411LS1.D | | | Analyzed: 04/11/11 07:27 | | | |
| Fluorobenzene | 602226 | 7.791 | 535800 | 7.785 | 112 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 312608 | 10.942 | 299001 | 10.942 | 105 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 393776 | 13.358 | 406386 | 13.357 | 97 | 50 - 200 | 0.0010 | +/-0.50 | |
| **Blank (1D11009-BLK1 )** | | | Lab File ID: 0411BL1.D | | | Analyzed: 04/11/11 08:43 | | | |
| Fluorobenzene | 545038 | 7.791 | 535800 | 7.785 | 102 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 294972 | 10.942 | 299001 | 10.942 | 99 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 298708 | 13.358 | 406386 | 13.357 | 74 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-037-0204-D (1104084-02 )** | | | Lab File ID: 0408402.D | | | Analyzed: 04/11/11 15:39 | | | |
| Fluorobenzene | 504543 | 7.791 | 535800 | 7.785 | 94 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 268802 | 10.942 | 299001 | 10.942 | 90 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 272938 | 13.358 | 406386 | 13.357 | 67 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-037-0204 (1104084-03 )** | | | Lab File ID: 0408403.D | | | Analyzed: 04/11/11 16:05 | | | |
| Fluorobenzene | 553633 | 7.791 | 535800 | 7.785 | 103 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 288771 | 10.948 | 299001 | 10.942 | 97 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 304046 | 13.358 | 406386 | 13.357 | 75 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-039-0204 (1104084-05 )** | | | Lab File ID: 0408405.D | | | Analyzed: 04/11/11 16:31 | | | |
| Fluorobenzene | 527154 | 7.791 | 535800 | 7.785 | 98 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 271059 | 10.948 | 299001 | 10.942 | 91 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 291278 | 13.357 | 406386 | 13.357 | 72 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-040-0204 (1104084-07 )** | | | Lab File ID: 0408407.D | | | Analyzed: 04/11/11 16:56 | | | |
| Fluorobenzene | 561351 | 7.791 | 535800 | 7.785 | 105 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 292370 | 10.948 | 299001 | 10.942 | 98 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 315399 | 13.363 | 406386 | 13.357 | 78 | 50 - 200 | 0.0060 | +/-0.50 | |
| **05-SS-041-0204 (1104084-08 )** | | | Lab File ID: 0408408.D | | | Analyzed: 04/11/11 17:22 | | | |
| Fluorobenzene | 521027 | 7.791 | 535800 | 7.785 | 97 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 264567 | 10.948 | 299001 | 10.942 | 88 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 284353 | 13.364 | 406386 | 13.357 | 70 | 50 - 200 | 0.0070 | +/-0.50 | |
| **05-SS-042-0204 (1104084-09 )** | | | Lab File ID: 0408409.D | | | Analyzed: 04/11/11 17:47 | | | |
| Fluorobenzene | 505258 | 7.791 | 535800 | 7.785 | 94 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 279564 | 10.948 | 299001 | 10.942 | 93 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 288988 | 13.358 | 406386 | 13.357 | 71 | 50 - 200 | 0.0010 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10207 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10207-CCV1 )** | | | Lab File ID: 0411CCV1.D | | | Analyzed: 04/11/11 11:53 | | | |
| Fluorobenzene | 739802 | 7.926 | 1045538 | 7.941 | 71 | 50 - 200 | -0.0150 | +/-0.50 | |
| Chlorobenzene-d5 | 270304 | 11.044 | 467017 | 11.049 | 58 | 50 - 200 | -0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 264680 | 13.434 | 451772 | 13.448 | 59 | 50 - 200 | -0.0140 | +/-0.50 | |
| **LCS (1D11015-BS1 )** | | | Lab File ID: 0411LS1.D | | | Analyzed: 04/11/11 12:28 | | | |
| Fluorobenzene | 684522 | 7.94 | 739802 | 7.926 | 93 | 50 - 200 | 0.0140 | +/-0.50 | |
| Chlorobenzene-d5 | 270785 | 11.048 | 270304 | 11.044 | 100 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 258805 | 13.438 | 264680 | 13.434 | 98 | 50 - 200 | 0.0040 | +/-0.50 | |
| **Blank (1D11015-BLK1 )** | | | Lab File ID: 0411BL1.D | | | Analyzed: 04/11/11 13:46 | | | |
| Fluorobenzene | 636205 | 7.945 | 739802 | 7.926 | 86 | 50 - 200 | 0.0190 | +/-0.50 | |
| Chlorobenzene-d5 | 275656 | 11.053 | 270304 | 11.044 | 102 | 50 - 200 | 0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 243973 | 13.443 | 264680 | 13.434 | 92 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-038-0204 (1104084-04 )** | | | Lab File ID: 0408404.D | | | Analyzed: 04/11/11 14:11 | | | |
| Fluorobenzene | 607791 | 7.953 | 739802 | 7.926 | 82 | 50 - 200 | 0.0270 | +/-0.50 | |
| Chlorobenzene-d5 | 273749 | 11.051 | 270304 | 11.044 | 101 | 50 - 200 | 0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 244882 | 13.441 | 264680 | 13.434 | 93 | 50 - 200 | 0.0070 | +/-0.50 | |
| **05-SS-043-0204 (1104084-10 )** | | | Lab File ID: 0408410.D | | | Analyzed: 04/11/11 14:37 | | | |
| Fluorobenzene | 616571 | 7.948 | 739802 | 7.926 | 83 | 50 - 200 | 0.0220 | +/-0.50 | |
| Chlorobenzene-d5 | 255060 | 11.056 | 270304 | 11.044 | 94 | 50 - 200 | 0.0120 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 221170 | 13.446 | 264680 | 13.434 | 84 | 50 - 200 | 0.0120 | +/-0.50 | |
| **05-SS-044-0204 (1104084-11 )** | | | Lab File ID: 0408411.D | | | Analyzed: 04/11/11 15:03 | | | |
| Fluorobenzene | 605152 | 7.943 | 739802 | 7.926 | 82 | 50 - 200 | 0.0170 | +/-0.50 | |
| Chlorobenzene-d5 | 254112 | 11.051 | 270304 | 11.044 | 94 | 50 - 200 | 0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 216647 | 13.441 | 264680 | 13.434 | 82 | 50 - 200 | 0.0070 | +/-0.50 | |
| **Matrix Spike (1D11015-MS1 )** | | | Lab File ID: 0408404M.D | | | Analyzed: 04/11/11 15:28 | | | |
| Fluorobenzene | 633283 | 7.951 | 739802 | 7.926 | 86 | 50 - 200 | 0.0250 | +/-0.50 | |
| Chlorobenzene-d5 | 260335 | 11.049 | 270304 | 11.044 | 96 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 237637 | 13.448 | 264680 | 13.434 | 90 | 50 - 200 | 0.0140 | +/-0.50 | |
| **Matrix Spike Dup (1D11015-MSD1 )** | | | Lab File ID: 0408404S.D | | | Analyzed: 04/11/11 15:54 | | | |
| Fluorobenzene | 618345 | 7.945 | 739802 | 7.926 | 84 | 50 - 200 | 0.0190 | +/-0.50 | |
| Chlorobenzene-d5 | 254080 | 11.052 | 270304 | 11.044 | 94 | 50 - 200 | 0.0080 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 236716 | 13.442 | 264680 | 13.434 | 89 | 50 - 200 | 0.0080 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D10402
Instrument: MS-VOA6
Calibration: 1081001

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10402-CCV1 )** | | | Lab File ID: 0413CCV1.D | | | Analyzed: 04/13/11 08:06 | | | |
| Fluorobenzene | 656623 | 7.94 | 1045538 | 7.941 | 63 | 50 - 200 | -0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 250545 | 11.038 | 467017 | 11.049 | 54 | 50 - 200 | -0.0110 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 258896 | 13.437 | 451772 | 13.448 | 57 | 50 - 200 | -0.0110 | +/-0.50 | |
| **LCS (1D13005-BS1 )** | | | Lab File ID: 0413LS1.D | | | Analyzed: 04/13/11 08:42 | | | |
| Fluorobenzene | 675281 | 7.92 | 656623 | 7.94 | 103 | 50 - 200 | -0.0200 | +/-0.50 | |
| Chlorobenzene-d5 | 277650 | 11.038 | 250545 | 11.038 | 111 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 269605 | 13.438 | 258896 | 13.437 | 104 | 50 - 200 | 0.0010 | +/-0.50 | |
| **Blank (1D13005-BLK1 )** | | | Lab File ID: 0413BL1.D | | | Analyzed: 04/13/11 09:55 | | | |
| Fluorobenzene | 649890 | 7.934 | 656623 | 7.94 | 99 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 280766 | 11.042 | 250545 | 11.038 | 112 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 266122 | 13.432 | 258896 | 13.437 | 103 | 50 - 200 | -0.0050 | +/-0.50 | |
| **05-SS-045-0204 (1104107-01 )** | | | Lab File ID: 0410701.D | | | Analyzed: 04/13/11 13:11 | | | |
| Fluorobenzene | 612314 | 7.935 | 656623 | 7.94 | 93 | 50 - 200 | -0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 265422 | 11.043 | 250545 | 11.038 | 106 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 235211 | 13.433 | 258896 | 13.437 | 91 | 50 - 200 | -0.0040 | +/-0.50 | |
| **05-SS-045-0204-D (1104107-02 )** | | | Lab File ID: 0410702.D | | | Analyzed: 04/13/11 13:36 | | | |
| Fluorobenzene | 606347 | 7.926 | 656623 | 7.94 | 92 | 50 - 200 | -0.0140 | +/-0.50 | |
| Chlorobenzene-d5 | 260784 | 11.044 | 250545 | 11.038 | 104 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 221973 | 13.433 | 258896 | 13.437 | 86 | 50 - 200 | -0.0040 | +/-0.50 | |
| **05-SS-046-0204 (1104107-03 )** | | | Lab File ID: 0410703.D | | | Analyzed: 04/13/11 14:00 | | | |
| Fluorobenzene | 620768 | 7.931 | 656623 | 7.94 | 95 | 50 - 200 | -0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 263888 | 11.039 | 250545 | 11.038 | 105 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 236915 | 13.429 | 258896 | 13.437 | 92 | 50 - 200 | -0.0080 | +/-0.50 | |
| **05-SS-047-0204 (1104107-04 )** | | | Lab File ID: 0410704.D | | | Analyzed: 04/13/11 14:25 | | | |
| Fluorobenzene | 619691 | 7.934 | 656623 | 7.94 | 94 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 267082 | 11.042 | 250545 | 11.038 | 107 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 241957 | 13.432 | 258896 | 13.437 | 93 | 50 - 200 | -0.0050 | +/-0.50 | |
| **05-SS-048-0204 (1104107-05 )** | | | Lab File ID: 0410705.D | | | Analyzed: 04/13/11 14:50 | | | |
| Fluorobenzene | 618333 | 7.94 | 656623 | 7.94 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 258839 | 11.048 | 250545 | 11.038 | 103 | 50 - 200 | 0.0100 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 233534 | 13.438 | 258896 | 13.437 | 90 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-050-0204 (1104107-07 )** | | | Lab File ID: 0410707.D | | | Analyzed: 04/13/11 15:40 | | | |
| Fluorobenzene | 628008 | 7.93 | 656623 | 7.94 | 96 | 50 - 200 | -0.0100 | +/-0.50 | |
| Chlorobenzene-d5 | 268108 | 11.048 | 250545 | 11.038 | 107 | 50 - 200 | 0.0100 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 240418 | 13.438 | 258896 | 13.437 | 93 | 50 - 200 | 0.0010 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10402 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Matrix Spike (1D13005-MS2 )** | | | Lab File ID: 0410703M.D | | | Analyzed: 04/13/11 16:54 | | | |
| Fluorobenzene | 628206 | 7.934 | 656623 | 7.94 | 96 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 260384 | 11.042 | 250545 | 11.038 | 104 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 242822 | 13.432 | 258896 | 13.437 | 94 | 50 - 200 | -0.0050 | +/-0.50 | |
| **Matrix Spike Dup (1D13005-MSD2 )** | | | Lab File ID: 0410703S.D | | | Analyzed: 04/13/11 17:19 | | | |
| Fluorobenzene | 619949 | 7.936 | 656623 | 7.94 | 94 | 50 - 200 | -0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 262334 | 11.044 | 250545 | 11.038 | 105 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 247916 | 13.434 | 258896 | 13.437 | 96 | 50 - 200 | -0.0030 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10507 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10507-CCV1 )** | | | Lab File ID: 0414CCV1.D | | | Analyzed: 04/14/11 07:47 | | | |
| Fluorobenzene | 668771 | 7.935 | 1045538 | 7.941 | 64 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 250106 | 11.043 | 467017 | 11.049 | 54 | 50 - 200 | -0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 245652 | 13.433 | 451772 | 13.448 | 54 | 50 - 200 | -0.0150 | +/-0.50 | |
| **LCS (1D14010-BS1 )** | | | Lab File ID: 0414LS1.D | | | Analyzed: 04/14/11 08:22 | | | |
| Fluorobenzene | 665172 | 7.935 | 668771 | 7.935 | 99 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 273416 | 11.043 | 250106 | 11.043 | 109 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 258145 | 13.433 | 245652 | 13.433 | 105 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1D14010-BLK1 )** | | | Lab File ID: 0414BL1.D | | | Analyzed: 04/14/11 09:35 | | | |
| Fluorobenzene | 633096 | 7.937 | 668771 | 7.935 | 95 | 50 - 200 | 0.0020 | +/-0.50 | |
| Chlorobenzene-d5 | 270376 | 11.045 | 250106 | 11.043 | 108 | 50 - 200 | 0.0020 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 243527 | 13.435 | 245652 | 13.433 | 99 | 50 - 200 | 0.0020 | +/-0.50 | |
| **05-SS-049-0204 (1104107-06RE1 )** | | | Lab File ID: 0410706R.D | | | Analyzed: 04/14/11 10:25 | | | |
| Fluorobenzene | 646965 | 7.929 | 668771 | 7.935 | 97 | 50 - 200 | -0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 266123 | 11.047 | 250106 | 11.043 | 106 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 244068 | 13.437 | 245652 | 13.433 | 99 | 50 - 200 | 0.0040 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10602 | Instrument: | MS-VOA4 |
| | | Calibration: | 1084001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10602-CCV1 )** | | | Lab File ID: 0415CCV1.D | | | Analyzed: 04/15/11 08:09 | | | |
| Fluorobenzene | 1276255 | 11.764 | 1274925 | 11.745 | 100 | 50 - 200 | 0.0190 | +/-0.50 | |
| Chlorobenzene-d5 | 497274 | 15.493 | 473989 | 15.484 | 105 | 50 - 200 | 0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 584244 | 17.387 | 606491 | 17.378 | 96 | 50 - 200 | 0.0090 | +/-0.50 | |
| **LCS (1D15002-BS1 )** | | | Lab File ID: 0415LCS1.D | | | Analyzed: 04/15/11 08:53 | | | |
| Fluorobenzene | 1283006 | 11.755 | 1276255 | 11.764 | 101 | 50 - 200 | -0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 494784 | 15.494 | 497274 | 15.493 | 99 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 593167 | 17.388 | 584244 | 17.387 | 102 | 50 - 200 | 0.0010 | +/-0.50 | |
| **Blank (1D15002-BLK1 )** | | | Lab File ID: 0415BL1.D | | | Analyzed: 04/15/11 10:21 | | | |
| Fluorobenzene | 1215975 | 11.755 | 1276255 | 11.764 | 95 | 50 - 200 | -0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 491049 | 15.484 | 497274 | 15.493 | 99 | 50 - 200 | -0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 533131 | 17.378 | 584244 | 17.387 | 91 | 50 - 200 | -0.0090 | +/-0.50 | |
| **Trip Blank #9476 (1104084-01 )** | | | Lab File ID: 0408401.D | | | Analyzed: 04/15/11 10:57 | | | |
| Fluorobenzene | 1143625 | 11.755 | 1276255 | 11.764 | 90 | 50 - 200 | -0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 472438 | 15.484 | 497274 | 15.493 | 95 | 50 - 200 | -0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 555016 | 17.378 | 584244 | 17.387 | 95 | 50 - 200 | -0.0090 | +/-0.50 | |
| **05-MW-039 (1104084-06 )** | | | Lab File ID: 0408406.D | | | Analyzed: 04/15/11 12:55 | | | |
| Fluorobenzene | 1208005 | 11.765 | 1276255 | 11.764 | 95 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 505338 | 15.493 | 497274 | 15.493 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 566740 | 17.387 | 584244 | 17.387 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS Dup (1D15002-BSD1 )** | | | Lab File ID: 0415LD1.D | | | Analyzed: 04/15/11 19:21 | | | |
| Fluorobenzene | 1274204 | 11.774 | 1276255 | 11.764 | 100 | 50 - 200 | 0.0100 | +/-0.50 | |
| Chlorobenzene-d5 | 472384 | 15.493 | 497274 | 15.493 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 607845 | 17.387 | 584244 | 17.387 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 1D10603

SDG: CTOJM26_006
Project: NAS Pensacola CTO JM26 Saufley
Instrument: MS-VOA4
Calibration: 1084001

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10603-CCV1 )** | | | Lab File ID: 0415CCVE.D | | | Analyzed: 04/15/11 20:20 | | | |
| Fluorobenzene | 1254600 | 11.774 | 1274925 | 11.745 | 98 | 50 - 200 | 0.0290 | +/-0.50 | |
| Chlorobenzene-d5 | 470099 | 15.502 | 473989 | 15.484 | 99 | 50 - 200 | 0.0180 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 577529 | 17.387 | 606491 | 17.378 | 95 | 50 - 200 | 0.0090 | +/-0.50 | |
| **LCS (1D15009-BS1 )** | | | Lab File ID: 0415LCSE.D | | | Analyzed: 04/15/11 20:50 | | | |
| Fluorobenzene | 1300400 | 11.779 | 1254600 | 11.774 | 104 | 50 - 200 | 0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 502504 | 15.498 | 470099 | 15.502 | 107 | 50 - 200 | -0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 596736 | 17.392 | 577529 | 17.387 | 103 | 50 - 200 | 0.0050 | +/-0.50 | |
| **Blank (1D15009-BLK1 )** | | | Lab File ID: 0415BL1E.D | | | Analyzed: 04/15/11 22:18 | | | |
| Fluorobenzene | 1229574 | 11.784 | 1254600 | 11.774 | 98 | 50 - 200 | 0.0100 | +/-0.50 | |
| Chlorobenzene-d5 | 473487 | 15.503 | 470099 | 15.502 | 101 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 578045 | 17.387 | 577529 | 17.387 | 100 | 50 - 200 | 0.0000 | +/-0.50 | |
| **TRIP BLANK #9477 (1104107-11 )** | | | Lab File ID: 0410711.D | | | Analyzed: 04/15/11 23:17 | | | |
| Fluorobenzene | 1214326 | 11.779 | 1254600 | 11.774 | 97 | 50 - 200 | 0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 468808 | 15.498 | 470099 | 15.502 | 100 | 50 - 200 | -0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 552291 | 17.392 | 577529 | 17.387 | 96 | 50 - 200 | 0.0050 | +/-0.50 | |
| **EQUIP BLANK 04 (1104107-08 )** | | | Lab File ID: 0410708.D | | | Analyzed: 04/15/11 23:47 | | | |
| Fluorobenzene | 1203148 | 11.774 | 1254600 | 11.774 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Chlorobenzene-d5 | 446875 | 15.493 | 470099 | 15.502 | 95 | 50 - 200 | -0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 541824 | 17.387 | 577529 | 17.387 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| **EQUIP BLANK 05 (1104107-09 )** | | | Lab File ID: 0410709.D | | | Analyzed: 04/16/11 00:16 | | | |
| Fluorobenzene | 1176787 | 11.78 | 1254600 | 11.774 | 94 | 50 - 200 | 0.0060 | +/-0.50 | |
| Chlorobenzene-d5 | 478557 | 15.499 | 470099 | 15.502 | 102 | 50 - 200 | -0.0030 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 555404 | 17.393 | 577529 | 17.387 | 96 | 50 - 200 | 0.0060 | +/-0.50 | |
| **05-MW-049 (1104107-10 )** | | | Lab File ID: 0410710.D | | | Analyzed: 04/16/11 00:46 | | | |
| Fluorobenzene | 1189118 | 11.778 | 1254600 | 11.774 | 95 | 50 - 200 | 0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 472953 | 15.497 | 470099 | 15.502 | 101 | 50 - 200 | -0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 567550 | 17.391 | 577529 | 17.387 | 98 | 50 - 200 | 0.0040 | +/-0.50 | |

# Data for SW8270C (PAH) Forms

# HOLDING TIME SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-037-0204-D | 04/06/11 08:25 | 04/07/11 08:45 | 04/18/11 07:18 | 12.00 | 14.00 | 04/23/11 14:45 | 5.31 | 40.00 | |
| 05-SS-037-0204 | 04/06/11 08:25 | 04/07/11 08:45 | 04/18/11 07:18 | 12.00 | 14.00 | 04/23/11 15:09 | 5.33 | 40.00 | |
| 05-SS-038-0204 | 04/06/11 09:05 | 04/07/11 08:45 | 04/18/11 07:18 | 11.97 | 14.00 | 04/23/11 15:34 | 5.34 | 40.00 | |
| 05-SS-039-0204 | 04/06/11 09:55 | 04/07/11 08:45 | 04/18/11 07:18 | 11.93 | 14.00 | 04/23/11 16:48 | 5.40 | 40.00 | |
| 05-MW-039 | 04/06/11 10:45 | 04/07/11 08:45 | 04/11/11 13:56 | 5.17 | 7.00 | 04/14/11 20:41 | 3.28 | 40.00 | |
| 05-SS-040-0204 | 04/06/11 13:15 | 04/07/11 08:45 | 04/18/11 07:18 | 11.79 | 14.00 | 04/23/11 17:13 | 5.41 | 40.00 | |
| 05-SS-041-0204 | 04/06/11 13:45 | 04/07/11 08:45 | 04/18/11 07:18 | 11.77 | 14.00 | 04/23/11 17:38 | 5.43 | 40.00 | |
| 05-SS-042-0204 | 04/06/11 14:15 | 04/07/11 08:45 | 04/18/11 07:18 | 11.75 | 14.00 | 04/23/11 18:03 | 5.45 | 40.00 | |
| 05-SS-043-0204 | 04/06/11 15:20 | 04/07/11 08:45 | 04/18/11 07:18 | 11.71 | 14.00 | 04/23/11 18:27 | 5.46 | 40.00 | |
| 05-SS-044-0204 | 04/06/11 16:00 | 04/07/11 08:45 | 04/18/11 07:18 | 11.68 | 14.00 | 04/23/11 18:52 | 5.48 | 40.00 | |
| 05-SS-045-0204 | 04/08/11 11:40 | 04/09/11 08:30 | 04/19/11 17:45 | 11.30 | 14.00 | 04/23/11 19:16 | 4.06 | 40.00 | |
| 05-SS-045-0204-D | 04/08/11 11:40 | 04/09/11 08:30 | 04/19/11 17:45 | 11.30 | 14.00 | 04/23/11 19:41 | 4.08 | 40.00 | |
| 05-SS-046-0204 | 04/08/11 12:20 | 04/09/11 08:30 | 04/19/11 17:45 | 11.27 | 14.00 | 04/23/11 20:06 | 4.10 | 40.00 | |
| 05-SS-047-0204 | 04/08/11 13:05 | 04/09/11 08:30 | 04/19/11 17:45 | 11.24 | 14.00 | 04/23/11 21:20 | 4.15 | 40.00 | |
| 05-SS-048-0204 | 04/08/11 13:50 | 04/09/11 08:30 | 04/19/11 17:45 | 11.20 | 14.00 | 04/23/11 21:44 | 4.17 | 40.00 | |
| 05-SS-049-0204 | 04/08/11 15:55 | 04/09/11 08:30 | 04/19/11 17:45 | 11.12 | 14.00 | 04/23/11 22:09 | 4.18 | 40.00 | |
| 05-SS-050-0204 | 04/08/11 16:50 | 04/09/11 08:30 | 04/19/11 17:45 | 11.08 | 14.00 | 04/23/11 22:34 | 4.20 | 40.00 | |
| EQUIP BLANK 04 | 04/08/11 10:40 | 04/09/11 08:30 | 04/13/11 11:27 | 5.07 | 7.00 | 04/13/11 18:31 | 0.29 | 40.00 | |
| EQUIP BLANK 05 | 04/08/11 12:05 | 04/09/11 08:30 | 04/13/11 11:27 | 5.02 | 7.00 | 04/13/11 18:59 | 0.31 | 40.00 | |
| 05-MW-049 | 04/08/11 16:38 | 04/09/11 08:30 | 04/13/11 11:27 | 4.83 | 7.00 | 04/13/11 19:27 | 0.33 | 40.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C06115 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C06115-TUN1 | SEQ-TUN1.D | 02/28/11 19:40 |
| Cal Standard | 1C06115-CAL1 | SEQ-CAL1.D | 02/28/11 19:58 |
| Cal Standard | 1C06115-CAL2 | SEQ-CAL2.D | 02/28/11 20:24 |
| Cal Standard | 1C06115-CAL3 | SEQ-CAL3.D | 02/28/11 20:50 |
| Cal Standard | 1C06115-CAL4 | SEQ-CAL4.D | 02/28/11 21:16 |
| Cal Standard | 1C06115-CAL5 | SEQ-CAL5.D | 02/28/11 21:42 |
| Cal Standard | 1C06115-CAL6 | SEQ-CAL6.D | 02/28/11 22:08 |
| Cal Standard | 1C06115-CAL7 | SEQ-CAL7.D | 02/28/11 22:35 |
| Cal Standard | 1C06115-CAL8 | SEQ-CAL8.D | 02/28/11 23:01 |
| MS Tune | 1C06115-TUN2 | SEQ-TUN1.D | 03/01/11 12:01 |
| Initial Cal Check | 1C06115-ICV1 | SEQ-ICV1.D | 03/01/11 12:19 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 02/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 19:40 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 54 | PASS |
| 68 | Less than 2% of 69 | 1.39 | PASS |
| 69 | Less than 200% of 198 | 52.7 | PASS |
| 70 | Less than 2% of 69 | 0.407 | PASS |
| 127 | 40 - 60% of 198 | 57.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 25.3 | PASS |
| 365 | 1 - 200% of 198 | 3.37 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 20.3 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/01/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:01 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.55 | PASS |
| 69 | Less than 200% of 198 | 50.4 | PASS |
| 70 | Less than 2% of 69 | 0.486 | PASS |
| 127 | 40 - 60% of 198 | 56.1 | PASS |
| 197 | Less than 1% of 198 | 1 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.03 | PASS |
| 275 | 10 - 30% of 198 | 25.6 | PASS |
| 365 | 1 - 200% of 198 | 3.45 | PASS |
| 441 | 0.001 - 100% of 443 | 82.1 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1061004
Instrument: MS-BNA4
Matrix: Water
Calibration Dates: 2/28/11 19:58 2/28/11 23:01

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 0.2 | 0.8535207 | 0.5 | 0.873421 | 1 | 0.9064357 | 5 | 0.8395738 | 10 | 0.784535 | 20 | 0.8168652 |
| Acenaphthylene | 0.2 | 1.382044 | 0.5 | 1.218477 | 1 | 1.435272 | 5 | 1.311268 | 10 | 1.208637 | 20 | 1.217291 |
| Anthracene | 0.2 | 1.058534 | 0.5 | 1.093939 | 1 | 1.125915 | 5 | 1.133941 | 10 | 1.170225 | 20 | 1.132615 |
| Benzo(a)anthracene | 0.2 | 0.6476147 | 0.5 | 0.7623581 | 1 | 0.8156699 | 5 | 0.8984042 | 10 | 1.054533 | 20 | 0.8423353 |
| Benzo(a)pyrene | 0.2 | 1.02565 | 0.5 | 1.014554 | 1 | 1.005352 | 5 | 1.046623 | 10 | 1.13987 | 20 | 1.083464 |
| Benzo(b)fluoranthene | 0.2 | 1.352174 | 0.5 | 1.123357 | 1 | 1.241503 | 5 | 1.234178 | 10 | 1.470413 | 20 | 1.430442 |
| Benzo(g,h,i)perylene | 0.2 | 1.25079 | 0.5 | 0.9738602 | 1 | 0.9538002 | 5 | 0.8937802 | 10 | 0.8523731 | 20 | 0.9100527 |
| Benzo(k)fluoranthene | 0.2 | 1.25079 | 0.5 | 1.187413 | 1 | 1.228864 | 5 | 1.399423 | 10 | 1.350928 | 20 | 1.327367 |
| Chrysene | 0.2 | 0.7374538 | 0.5 | 0.8493865 | 1 | 0.842695 | 5 | 0.9126712 | 10 | 1.060452 | 20 | 0.7892754 |
| Dibenz(a,h)anthracene | 0.2 | 0.9186101 | 0.5 | 0.772847 | 1 | 0.7332764 | 5 | 0.807053 | 10 | 0.8074299 | 20 | 0.8601228 |
| Fluoranthene | 0.2 | 1.051742 | 0.5 | 1.162418 | 1 | 1.179913 | 5 | 1.225501 | 10 | 1.272376 | 20 | 1.210129 |
| Fluorene | 0.2 | 0.7020536 | 0.5 | 0.7674959 | 1 | 0.8242432 | 5 | 0.8055957 | 10 | 0.8027371 | 20 | 0.8141917 |
| 2-Fluorobiphenyl | 0.2 | 0.9678027 | 0.5 | 0.9267382 | 1 | 0.971158 | 5 | 0.9172978 | 10 | 0.8347461 | 20 | 0.8721172 |
| Indeno(1,2,3-cd)pyrene | 0.2 | 1.19648 | 0.5 | 1.0475 | 1 | 1.041161 | 5 | 1.035051 | 10 | 1.034813 | 20 | 1.078813 |
| 1-Methylnaphthalene | 0.2 | 1.063294 | 0.5 | 0.9409067 | 1 | 0.9548364 | 5 | 0.8620632 | 10 | 0.8000648 | 20 | 0.8432121 |
| 2-Methylnaphthalene | 0.2 | 1.091703 | 0.5 | 0.9503314 | 1 | 0.953009 | 5 | 0.8485033 | 10 | 0.790738 | 20 | 0.8347751 |
| Naphthalene | 0.2 | 1.685474 | 0.5 | 1.472423 | 1 | 1.51616 | 5 | 1.341546 | 10 | 1.240043 | 20 | 1.318205 |
| Phenanthrene | 0.2 | 1.134937 | 0.5 | 1.1581 | 1 | 1.184863 | 5 | 1.175284 | 10 | 1.202262 | 20 | 1.17303 |
| Pyrene | 0.2 | 1.092794 | 0.5 | 1.147446 | 1 | 1.174827 | 5 | 1.234693 | 10 | 1.289576 | 20 | 1.223257 |
| Terphenyl-d14 | 0.2 | 0.6118179 | 0.5 | 0.7063144 | 1 | 0.7228992 | 5 | 0.7705175 | 10 | 0.8117648 | 20 | 0.7422102 |
| 2,4,6-Tribromophenol | 0.4 | ~~6.326415E-02~~ | 1 | ~~8.579129E-02~~ | 2 | ~~0.1089983~~ | 10 | 0.1584169 | 20 | 0.1656128 | 40 | 0.175367 |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |
| Acenaphthene | 0.2 | 0.8535207 | 0.5 | 0.873421 | 1 | 0.9064357 | 5 | 0.8395738 | 10 | 0.784535 | 20 | 0.8168652 |
| Acenaphthylene | 0.2 | 1.382044 | 0.5 | 1.218477 | 1 | 1.435272 | 5 | 1.311268 | 10 | 1.208637 | 20 | 1.217291 |
| Anthracene | 0.2 | 1.058534 | 0.5 | 1.093939 | 1 | 1.125915 | 5 | 1.133941 | 10 | 1.170225 | 20 | 1.132615 |
| Benzo(a)anthracene | 0.2 | 0.6476147 | 0.5 | 0.7623581 | 1 | 0.8156699 | 5 | 0.8984042 | 10 | 1.054533 | 20 | 0.8423353 |
| Benzo(a)pyrene | 0.2 | 1.02565 | 0.5 | 1.014554 | 1 | 1.005352 | 5 | 1.046623 | 10 | 1.13987 | 20 | 1.083464 |
| Benzo(b)fluoranthene | 0.2 | 1.352174 | 0.5 | 1.123357 | 1 | 1.241503 | 5 | 1.234178 | 10 | 1.470413 | 20 | 1.430442 |
| Benzo(g,h,i)perylene | 0.2 | 1.25079 | 0.5 | 0.9738602 | 1 | 0.9538002 | 5 | 0.8937802 | 10 | 0.8523731 | 20 | 0.9100527 |
| Benzo(k)fluoranthene | 0.2 | 1.25079 | 0.5 | 1.187413 | 1 | 1.228864 | 5 | 1.399423 | 10 | 1.350928 | 20 | 1.327367 |
| Chrysene | 0.2 | 0.7374538 | 0.5 | 0.8493865 | 1 | 0.842695 | 5 | 0.9126712 | 10 | 1.060452 | 20 | 0.7892754 |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Dibenz(a,h)anthracene | 0.2 | 0.9186101 | 0.5 | 0.772847 | 1 | 0.7332764 | 5 | 0.807053 | 10 | 0.8074299 | 20 | 0.8601228 |
| Fluoranthene | 0.2 | 1.051742 | 0.5 | 1.162418 | 1 | 1.179913 | 5 | 1.225501 | 10 | 1.272376 | 20 | 1.210129 |
| Fluorene | 0.2 | 0.7020536 | 0.5 | 0.7674959 | 1 | 0.8242432 | 5 | 0.8055957 | 10 | 0.8027371 | 20 | 0.8141917 |
| 2-Fluorobiphenyl | 0.2 | 0.9678027 | 0.5 | 0.9267382 | 1 | 0.971158 | 5 | 0.9172978 | 10 | 0.8347461 | 20 | 0.8721172 |
| Indeno(1,2,3-cd)pyrene | 0.2 | 1.19648 | 0.5 | 1.0475 | 1 | 1.041161 | 5 | 1.035051 | 10 | 1.034813 | 20 | 1.078813 |
| 1-Methylnaphthalene | 0.2 | 1.063294 | 0.5 | 0.9409067 | 1 | 0.9548364 | 5 | 0.8620632 | 10 | 0.8000648 | 20 | 0.8432121 |
| 2-Methylnaphthalene | 0.2 | 1.091703 | 0.5 | 0.9503314 | 1 | 0.953009 | 5 | 0.8485033 | 10 | 0.790738 | 20 | 0.8347751 |
| Naphthalene | 0.2 | 1.685474 | 0.5 | 1.472423 | 1 | 1.51616 | 5 | 1.341546 | 10 | 1.240043 | 20 | 1.318205 |
| Phenanthrene | 0.2 | 1.134937 | 0.5 | 1.1581 | 1 | 1.184863 | 5 | 1.175284 | 10 | 1.202262 | 20 | 1.17303 |
| Pyrene | 0.2 | 1.092794 | 0.5 | 1.147446 | 1 | 1.174827 | 5 | 1.234693 | 10 | 1.289576 | 20 | 1.223257 |
| Terphenyl-d14 | 0.2 | 0.6118179 | 0.5 | 0.7063144 | 1 | 0.7228992 | 5 | 0.7705175 | 10 | 0.8117648 | 20 | 0.7422102 |
| 2,4,6-Tribromophenol | 0.4 | ~~6.326415E-02~~ | 1 | ~~8.579129E-02~~ | 2 | ~~0.1089983~~ | 10 | 0.1584169 | 20 | 0.1656128 | 40 | 0.175367 |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | 1 | | 1 | | 1 | | 1 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 40 | 0.7820316 | 50 | 0.7652934 | | | | | | | | |
| Acenaphthylene | 40 | 1.094458 | 50 | 1.018169 | | | | | | | | |
| Anthracene | 40 | 1.152126 | 50 | 1.196303 | | | | | | | | |
| Benzo(a)anthracene | 40 | 1.003107 | 50 | 0.9291589 | | | | | | | | |
| Benzo(a)pyrene | 40 | 1.080537 | 50 | 1.058466 | | | | | | | | |
| Benzo(b)fluoranthene | 40 | 1.335067 | 50 | 1.516975 | | | | | | | | |
| Benzo(g,h,i)perylene | 40 | 0.9253269 | 50 | 0.8257036 | | | | | | | | |
| Benzo(k)fluoranthene | 40 | 1.386509 | 50 | 1.229503 | | | | | | | | |
| Chrysene | 40 | 0.9474654 | 50 | 0.8935192 | | | | | | | | |
| Dibenz(a,h)anthracene | 40 | 0.8924079 | 50 | 0.7981977 | | | | | | | | |
| Fluoranthene | 40 | 1.255338 | 50 | 1.219358 | | | | | | | | |
| Fluorene | 40 | 0.7859858 | 50 | 0.8053954 | | | | | | | | |
| 2-Fluorobiphenyl | 40 | 0.8111573 | 50 | 0.8142831 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 40 | 1.109845 | 50 | 0.9998711 | | | | | | | | |
| 1-Methylnaphthalene | 40 | 0.7771338 | 50 | 0.7467535 | | | | | | | | |
| 2-Methylnaphthalene | 40 | 0.7827356 | 50 | 0.7506397 | | | | | | | | |
| Naphthalene | 40 | 1.179985 | 50 | 1.155622 | | | | | | | | |
| Phenanthrene | 40 | 1.176864 | 50 | 1.189216 | | | | | | | | |
| Pyrene | 40 | 1.276995 | 50 | 1.213951 | | | | | | | | |
| Terphenyl-d14 | 40 | 0.8018532 | 50 | 0.7661409 | | | | | | | | |
| 2,4,6-Tribromophenol | 80 | 0.1735388 | 100 | 0.164136 | | | | | | | | |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | | | | | | | | |
| Acenaphthene | 40 | 0.7820316 | 50 | 0.7652934 | | | | | | | | |
| Acenaphthylene | 40 | 1.094458 | 50 | 1.018169 | | | | | | | | |
| Anthracene | 40 | 1.152126 | 50 | 1.196303 | | | | | | | | |
| Benzo(a)anthracene | 40 | 1.003107 | 50 | 0.9291589 | | | | | | | | |
| Benzo(a)pyrene | 40 | 1.080537 | 50 | 1.058466 | | | | | | | | |
| Benzo(b)fluoranthene | 40 | 1.335067 | 50 | 1.516975 | | | | | | | | |
| Benzo(g,h,i)perylene | 40 | 0.9253269 | 50 | 0.8257036 | | | | | | | | |
| Benzo(k)fluoranthene | 40 | 1.386509 | 50 | 1.229503 | | | | | | | | |
| Chrysene | 40 | 0.9474654 | 50 | 0.8935192 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Dibenz(a,h)anthracene | 40 | 0.8924079 | 50 | 0.7981977 | | | | | | | | |
| Fluoranthene | 40 | 1.255338 | 50 | 1.219358 | | | | | | | | |
| Fluorene | 40 | 0.7859858 | 50 | 0.8053954 | | | | | | | | |
| 2-Fluorobiphenyl | 40 | 0.8111573 | 50 | 0.8142831 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | 40 | 1.109845 | 50 | 0.9998711 | | | | | | | | |
| 1-Methylnaphthalene | 40 | 0.7771338 | 50 | 0.7467535 | | | | | | | | |
| 2-Methylnaphthalene | 40 | 0.7827356 | 50 | 0.7506397 | | | | | | | | |
| Naphthalene | 40 | 1.179985 | 50 | 1.155622 | | | | | | | | |
| Phenanthrene | 40 | 1.176864 | 50 | 1.189216 | | | | | | | | |
| Pyrene | 40 | 1.276995 | 50 | 1.213951 | | | | | | | | |
| Terphenyl-d14 | 40 | 0.8018532 | 50 | 0.7661409 | | | | | | | | |
| 2,4,6-Tribromophenol | 80 | 0.1735388 | 100 | 0.164136 | | | | | | | | |
| 1,4-Dichlorobenzene-d4 | 1 | | 1 | | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1C06115 | Injection Date: | 03/01/11 |
| Lab Sample ID: | 1C06115-ICV1 | Injection Time: | 12:19 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.234 | 0.8277096 | 0.8665216 | | 4.7 | 20 |
| Acenaphthylene | A | 5.000 | 5.787 | 1.235702 | 1.430186 | | 15.7 | 20 |
| Anthracene | A | 5.000 | 5.426 | 1.13295 | 1.229415 | | 8.5 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.970 | 0.8691476 | 0.9136814 | | -0.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.399 | 1.056815 | 1.141205 | | 8.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.866 | 1.338014 | 1.302123 | | -2.7 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.830 | 0.9482109 | 0.9159273 | | -3.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.796 | 1.2951 | 1.501354 | | 15.9 | 20 |
| Chrysene | A | 5.000 | 5.406 | 0.8791148 | 0.9505258 | | 8.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.789 | 0.8237431 | 0.7889492 | | -4.2 | 20 |
| Fluoranthene | A | 5.000 | 5.284 | 1.197097 | 1.265188 | | 5.7 | 20 |
| Fluorene | A | 5.000 | 5.335 | 0.7884623 | 0.8413243 | | 6.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.885 | 1.067942 | 1.043478 | | -2.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.030 | 0.8735331 | 0.8786867 | | 0.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.052 | 0.8753044 | 0.88448 | | 1.0 | 20 |
| Naphthalene | A | 5.000 | 5.217 | 1.363682 | 1.422778 | | 4.3 | 20 |
| Phenanthrene | A | 5.000 | 5.384 | 1.17432 | 1.264507 | | 7.7 | 20 |
| Pyrene | A | 5.000 | 5.486 | 1.206692 | 1.324032 | | 9.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.477 | 0.8894126 | 0.974327 | | 9.5 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.816 | 0.7416898 | 0.8626973 | | 16.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10415 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10415-TUN1 | SEQ-TUN1.D | 04/13/11 15:47 |
| Calibration Check | 1D10415-CCV1 | SEQ-CCV1.D | 04/13/11 16:08 |
| Blank | 1D13011-BLK1 | D13011B1.D | 04/13/11 17:07 |
| LCS | 1D13011-BS1 | D13011L1.D | 04/13/11 17:35 |
| LCS Dup | 1D13011-BSD1 | D13011L2.D | 04/13/11 18:03 |
| EQUIP BLANK 04 | 1104107-08 | 0410708.D | 04/13/11 18:31 |
| EQUIP BLANK 05 | 1104107-09 | 0410709.D | 04/13/11 18:59 |
| 05-MW-049 | 1104107-10 | 0410710.D | 04/13/11 19:27 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/13/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 15:47 |
| Sequence: | 1D10415 | Lab Sample ID: | 1D10415-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 50.4 | PASS |
| 68 | Less than 2% of 69 | 1.54 | PASS |
| 69 | Less than 200% of 198 | 48.9 | PASS |
| 70 | Less than 2% of 69 | 0.515 | PASS |
| 127 | 40 - 60% of 198 | 55 | PASS |
| 197 | Less than 1% of 198 | 0.0535 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 27.6 | PASS |
| 365 | 1 - 200% of 198 | 4.29 | PASS |
| 441 | 0.001 - 100% of 443 | 82.5 | PASS |
| 442 | 40 - 200% of 198 | 158 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10415 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10415-CCV1 | Injection Time: | 16:08 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.965 | 0.8277096 | 0.822 | | -0.7 | 20 |
| Acenaphthylene | A | 5.000 | 5.086 | 1.235702 | 1.256935 | | 1.7 | 20 |
| Anthracene | A | 5.000 | 5.109 | 1.13295 | 1.157728 | | 2.2 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.443 | 0.8691476 | 0.8126945 | | -11.1 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.014 | 1.056815 | 1.059885 | | 0.3 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.348 | 1.338014 | 1.431155 | | 7.0 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.334 | 0.9482109 | 0.821916 | | -13.3 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.925 | 1.2951 | 1.275739 | | -1.5 | 20 |
| Chrysene | A | 5.000 | 4.770 | 0.8791148 | 0.8386995 | | -4.6 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.019 | 0.8237431 | 0.8268625 | | 0.4 | 20 |
| Fluoranthene | A | 5.000 | 4.677 | 1.197097 | 1.119712 | | -6.5 | 20 |
| Fluorene | A | 5.000 | 5.219 | 0.7884623 | 0.8229564 | | 4.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.770 | 1.067942 | 1.018844 | | -4.6 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.718 | 0.8735331 | 0.8242473 | | -5.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.832 | 0.8753044 | 0.845839 | | -3.4 | 20 |
| Naphthalene | A | 5.000 | 4.588 | 1.363682 | 1.251233 | | -8.2 | 20 |
| Phenanthrene | A | 5.000 | 4.844 | 1.17432 | 1.137787 | | -3.1 | 20 |
| Pyrene | A | 5.000 | 4.685 | 1.206692 | 1.130762 | | -6.3 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.791 | 0.8894126 | 0.8521742 | | -4.2 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.772 | 0.7416898 | 0.7078369 | | -4.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10520 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10520-TUN1 | SEQ-TUN1.D | 04/14/11 17:01 |
| Calibration Check | 1D10520-CCV1 | SEQ-CCV1.D | 04/14/11 17:55 |
| Blank | 1D11008-BLK1 | D11008B1.D | 04/14/11 18:51 |
| LCS | 1D11008-BS1 | D11008L1.D | 04/14/11 19:18 |
| 05-MW-039 | 1104084-06 | 0408406.D | 04/14/11 20:41 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/14/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 17:01 |
| Sequence: | 1D10520 | Lab Sample ID: | 1D10520-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 49.7 | PASS |
| 68 | Less than 2% of 69 | 1.57 | PASS |
| 69 | Less than 200% of 198 | 50.3 | PASS |
| 70 | Less than 2% of 69 | 0.509 | PASS |
| 127 | 40 - 60% of 198 | 56.5 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.5 | PASS |
| 275 | 10 - 30% of 198 | 25.9 | PASS |
| 365 | 1 - 200% of 198 | 3.6 | PASS |
| 441 | 0.001 - 100% of 443 | 81.2 | PASS |
| 442 | 40 - 200% of 198 | 120 | PASS |
| 443 | 17 - 23% of 442 | 19.9 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10520 | Injection Date: | 04/14/11 |
| Lab Sample ID: | 1D10520-CCV1 | Injection Time: | 17:55 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.716 | 0.8277096 | 0.7806893 | | -5.7 | 20 |
| Acenaphthylene | A | 5.000 | 4.806 | 1.235702 | 1.18764 | | -3.9 | 20 |
| Anthracene | A | 5.000 | 4.941 | 1.13295 | 1.119547 | | -1.2 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.169 | 0.8691476 | 0.7602684 | | -16.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.952 | 1.056815 | 1.046574 | | -1.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.683 | 1.338014 | 1.253292 | | -6.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.860 | 0.9482109 | 0.9217351 | | -2.8 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.800 | 1.2951 | 1.243419 | | -4.0 | 20 |
| Chrysene | A | 5.000 | 4.112 | 0.8791148 | 0.7230389 | | -17.8 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.234 | 0.8237431 | 0.8623851 | | 4.7 | 20 |
| Fluoranthene | A | 5.000 | 4.627 | 1.197097 | 1.107889 | | -7.5 | 20 |
| Fluorene | A | 5.000 | 5.075 | 0.7884623 | 0.8003314 | | 1.5 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.008 | 1.067942 | 1.069644 | | 0.2 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.513 | 0.8735331 | 0.788455 | | -9.7 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.584 | 0.8753044 | 0.8025711 | | -8.3 | 20 |
| Naphthalene | A | 5.000 | 4.425 | 1.363682 | 1.206896 | | -11.5 | 20 |
| Phenanthrene | A | 5.000 | 4.840 | 1.17432 | 1.136866 | | -3.2 | 20 |
| Pyrene | A | 5.000 | 4.576 | 1.206692 | 1.104384 | | -8.5 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.560 | 0.8894126 | 0.8112454 | | -8.8 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.675 | 0.7416898 | 0.6934826 | | -6.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11106 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11106-TUN1 | SEQ-TUN2.D | 04/19/11 14:38 |
| Cal Standard | 1D11106-CAL1 | SEQ-CAL1.D | 04/19/11 14:56 |
| Cal Standard | 1D11106-CAL2 | SEQ-CAL2.D | 04/19/11 15:22 |
| Cal Standard | 1D11106-CAL3 | SEQ-CAL3.D | 04/19/11 15:49 |
| Cal Standard | 1D11106-CAL4 | SEQ-CAL4.D | 04/19/11 16:15 |
| Cal Standard | 1D11106-CAL5 | SEQ-CAL5.D | 04/19/11 16:41 |
| Cal Standard | 1D11106-CAL6 | SEQ-CAL6.D | 04/19/11 17:07 |
| Cal Standard | 1D11106-CAL7 | SEQ-CAL7.D | 04/19/11 17:33 |
| Cal Standard | 1D11106-CAL8 | SEQ-CAL8.D | 04/19/11 18:00 |
| Cal Standard | 1D11106-CAL9 | SEQ-CAL9.D | 04/19/11 18:26 |
| Initial Cal Check | 1D11106-ICV1 | SEQ-ICV1.D | 04/19/11 18:52 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/19/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 14:38 |
| Sequence: | 1D11106 | Lab Sample ID: | 1D11106-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 55.9 | PASS |
| 68 | Less than 2% of 69 | 1.42 | PASS |
| 69 | Less than 200% of 198 | 55.6 | PASS |
| 70 | Less than 2% of 69 | 0.506 | PASS |
| 127 | 40 - 60% of 198 | 58.8 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.61 | PASS |
| 275 | 10 - 30% of 198 | 25.1 | PASS |
| 365 | 1 - 200% of 198 | 3.39 | PASS |
| 441 | 0.001 - 100% of 443 | 81.4 | PASS |
| 442 | 40 - 200% of 198 | 116 | PASS |
| 443 | 17 - 23% of 442 | 20 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1112002

Instrument: MS-BNA4

Matrix: Water

Calibration Dates: 4/19/11 14:56 4/19/11 18:26

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8172941 | 6.002518 | 7.944333 | 0.1047021 | | | CCC (30) | |
| Acenaphthylene | 1.207785 | 7.808994 | 7.734889 | 0.1182522 | | | 15 | |
| Anthracene | 1.161613 | 5.505861 | 9.805778 | 0.100823 | | | 15 | |
| Benzo(a)anthracene | 0.7794695 | 6.254565 | 12.93533 | 6.502969E-02 | | | 15 | |
| Benzo(a)pyrene | 1.060401 | 3.200109 | 14.769 | 4.143849E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.376623 | 14.1471 | 14.326 | 7.995191E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.8408092 | 6.210629 | 16.70156 | 7.861425E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.327054 | 4.862521 | 14.36322 | 0.079314 | | | 15 | |
| Chrysene | 0.7510425 | 7.301878 | 12.98111 | 7.297783E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.7885715 | 9.963425 | 16.36178 | 4.777576E-02 | | | 15 | |
| Fluoranthene | 1.110642 | 2.363902 | 11.19311 | 0.0831072 | | | CCC (30) | |
| Fluorene | 0.806718 | 3.496377 | 8.576445 | 9.781169E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8530656 | 6.095572 | 7.112 | 8.858856E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 0.9694231 | 7.8043 | 16.34633 | 6.789173E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8159287 | 7.985947 | 6.773 | 9.488666E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8312967 | 6.802917 | 6.660333 | 0.1047284 | | | 15 | |
| Naphthalene | 1.267467 | 7.448697 | 5.839111 | 9.533926E-02 | | | 15 | |
| Phenanthrene | 1.148831 | 2.40557 | 9.740667 | 0.1040327 | | | 15 | |
| Pyrene | 1.116922 | 2.023077 | 11.46378 | 7.377866E-02 | | | 15 | |
| Terphenyl-d14 | 0.6997344 | 3.349731 | 11.68256 | 6.766915E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1551379 | 13.70301 | 8.878286 | 0.1225255 | | | 15 | |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11 14:56 4/19/11 18:26 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 0.1 | 0.9073685 | 0.2 | 0.8472282 | 0.5 | 0.8071579 | 1 | 0.8498111 | 5 | 0.7983861 | 10 | 0.8336235 |
| Acenaphthylene | 0.1 | 1.270537 | 0.2 | 1.269796 | 0.5 | 1.203545 | 1 | 1.329895 | 5 | 1.244934 | 10 | 1.26954 |
| Anthracene | 0.1 | 1.316798 | 0.2 | 1.168288 | 0.5 | 1.110749 | 1 | 1.196516 | 5 | 1.142564 | 10 | 1.145289 |
| Benzo(a)anthracene | 0.1 | 0.7733584 | 0.2 | 0.7987414 | 0.5 | 0.7936948 | 1 | 0.7615763 | 5 | 0.7571927 | 10 | 0.7128554 |
| Benzo(a)pyrene | 0.1 | 1.011587 | 0.2 | 1.030946 | 0.5 | 1.017569 | 1 | 1.060213 | 5 | 1.0839 | 10 | 1.070646 |
| Benzo(b)fluoranthene | 0.1 | 1.069402 | 0.2 | 1.059034 | 0.5 | 1.373963 | 1 | 1.372638 | 5 | 1.430587 | 10 | 1.441237 |
| Benzo(g,h,i)perylene | 0.1 | 0.9408315 | 0.2 | 0.8405568 | 0.5 | 0.7976318 | 1 | 0.8148168 | 5 | 0.864219 | 10 | 0.8665815 |
| Benzo(k)fluoranthene | 0.1 | 1.267422 | 0.2 | 1.346846 | 0.5 | 1.26362 | 1 | 1.415845 | 5 | 1.392767 | 10 | 1.383433 |
| Chrysene | 0.1 | 0.7544808 | 0.2 | 0.8034506 | 0.5 | 0.8045734 | 1 | 0.7738445 | 5 | 0.7358241 | 10 | 0.6923619 |
| Dibenz(a,h)anthracene | 0.1 | 0.9496165 | 0.2 | 0.7466783 | 0.5 | 0.7402214 | 1 | 0.6805862 | 5 | 0.796443 | 10 | 0.7934616 |
| Fluoranthene | 0.1 | 1.157548 | 0.2 | 1.062454 | 0.5 | 1.095169 | 1 | 1.124283 | 5 | 1.105329 | 10 | 1.104339 |
| Fluorene | 0.1 | 0.8064115 | 0.2 | 0.7540568 | 0.5 | 0.8063694 | 1 | 0.856421 | 5 | 0.815093 | 10 | 0.8250326 |
| 2-Fluorobiphenyl | 0.1 | 0.9111025 | 0.2 | 0.8179966 | 0.5 | 0.8596231 | 1 | 0.9163567 | 5 | 0.8693337 | 10 | 0.9032449 |
| Indeno(1,2,3-cd)pyrene | 0.1 | 1.093383 | 0.2 | 0.9068841 | 0.5 | 0.9403396 | 1 | 0.8500651 | 5 | 0.988829 | 10 | 1.00136 |
| 1-Methylnaphthalene | 0.1 | 0.9055015 | 0.2 | 0.8433563 | 0.5 | 0.8234392 | 1 | 0.8924473 | 5 | 0.8141195 | 10 | 0.8432931 |
| 2-Methylnaphthalene | 0.1 | 0.8922941 | 0.2 | 0.8542047 | 0.5 | 0.8425825 | 1 | 0.9153548 | 5 | 0.8238603 | 10 | 0.8462289 |
| Naphthalene | 0.1 | 1.349228 | 0.2 | 1.335829 | 0.5 | 1.292384 | 1 | 1.372084 | 5 | 1.289524 | 10 | 1.314208 |
| Phenanthrene | 0.1 | 1.168128 | 0.2 | 1.160509 | 0.5 | 1.123307 | 1 | 1.207249 | 5 | 1.149711 | 10 | 1.147939 |
| Pyrene | 0.1 | 1.125118 | 0.2 | 1.087779 | 0.5 | 1.101083 | 1 | 1.132428 | 5 | 1.126722 | 10 | 1.105628 |
| Terphenyl-d14 | 0.1 | 0.6677684 | 0.2 | 0.7013144 | 0.5 | 0.7095286 | 1 | 0.6890768 | 5 | 0.6935843 | 10 | 0.6867195 |
| 2,4,6-Tribromophenol | 0.2 | ~~9.577087E-02~~ | 0.4 | ~~0.1047175~~ | 1 | 0.1132755 | 2 | 0.1399245 | 10 | 0.1621875 | 20 | 0.1721881 |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11 14:56 4/19/11 18:26 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 20 | 0.7940618 | 40 | 0.7352884 | 50 | 0.7827219 | | | | | | |
| Acenaphthylene | 20 | 1.141889 | 40 | 1.048448 | 50 | 1.091477 | | | | | | |
| Anthracene | 20 | 1.117011 | 40 | 1.128844 | 50 | 1.128459 | | | | | | |
| Benzo(a)anthracene | 20 | 0.7657045 | 40 | 0.891703 | 50 | 0.7603992 | | | | | | |
| Benzo(a)pyrene | 20 | 1.100458 | 40 | 1.064936 | 50 | 1.103355 | | | | | | |
| Benzo(b)fluoranthene | 20 | 1.537608 | 40 | 1.633929 | 50 | 1.471212 | | | | | | |
| Benzo(g,h,i)perylene | 20 | 0.8566147 | 40 | 0.7527658 | 50 | 0.8332651 | | | | | | |
| Benzo(k)fluoranthene | 20 | 1.354037 | 40 | 1.250454 | 50 | 1.26906 | | | | | | |
| Chrysene | 20 | 0.6823315 | 40 | 0.8250514 | 50 | 0.6874646 | | | | | | |
| Dibenz(a,h)anthracene | 20 | 0.8197604 | 40 | 0.7276827 | 50 | 0.8426935 | | | | | | |
| Fluoranthene | 20 | 1.100363 | 40 | 1.116813 | 50 | 1.129477 | | | | | | |
| Fluorene | 20 | 0.8177829 | 40 | 0.7918825 | 50 | 0.7874121 | | | | | | |
| 2-Fluorobiphenyl | 20 | 0.8244022 | 40 | 0.7671239 | 50 | 0.8084073 | | | | | | |
| Indeno(1,2,3-cd)pyrene | 20 | 1.000876 | 40 | 0.9043518 | 50 | 1.038719 | | | | | | |
| 1-Methylnaphthalene | 20 | 0.7692007 | 40 | 0.7167983 | 50 | 0.7352023 | | | | | | |
| 2-Methylnaphthalene | 20 | 0.7931505 | 40 | 0.7308007 | 50 | 0.7831935 | | | | | | |
| Naphthalene | 20 | 1.210287 | 40 | 1.118559 | 50 | 1.125103 | | | | | | |
| Phenanthrene | 20 | 1.129587 | 40 | 1.117307 | 50 | 1.135743 | | | | | | |
| Pyrene | 20 | 1.104729 | 40 | 1.163501 | 50 | 1.105306 | | | | | | |
| Terphenyl-d14 | 20 | 0.7217151 | 40 | 0.7460979 | 50 | 0.6818047 | | | | | | |
| 2,4,6-Tribromophenol | 40 | 0.1625257 | 80 | 0.1663055 | 100 | 0.1695583 | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11106 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11106-ICV1 | Injection Time: | 18:52 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.145 | 0.8172941 | 0.8409406 | | 2.9 | 20 |
| Acenaphthylene | A | 5.000 | 5.694 | 1.207785 | 1.375521 | | 13.9 | 20 |
| Anthracene | A | 5.000 | 5.601 | 1.161613 | 1.301226 | | 12.0 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.940 | 0.7794695 | 0.7701215 | | -1.2 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.489 | 1.060401 | 1.16413 | | 9.8 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.261 | 1.376623 | 1.448551 | | 5.2 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.469 | 0.8408092 | 0.9196673 | | 9.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.499 | 1.327054 | 1.459622 | | 10.0 | 20 |
| Chrysene | A | 5.000 | 5.270 | 0.7510425 | 0.7915565 | | 5.4 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.291 | 0.7885715 | 0.8344072 | | 5.8 | 20 |
| Fluoranthene | A | 5.000 | 5.358 | 1.110642 | 1.190233 | | 7.2 | 20 |
| Fluorene | A | 5.000 | 5.368 | 0.806718 | 0.866153 | | 7.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.582 | 0.9694231 | 1.082169 | | 11.6 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.107 | 0.8159287 | 0.8334349 | | 2.1 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.373 | 0.8312967 | 0.8933577 | | 7.5 | 20 |
| Naphthalene | A | 5.000 | 5.542 | 1.267467 | 1.404988 | | 10.9 | 20 |
| Phenanthrene | A | 5.000 | 5.465 | 1.148831 | 1.255674 | | 9.3 | 20 |
| Pyrene | A | 5.000 | 5.443 | 1.116922 | 1.21582 | | 8.9 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.807 | 0.8530656 | 0.9907614 | | 16.1 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.562 | 0.6997344 | 0.7783563 | | 11.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D11503
Instrument: MS-BNA4
Calibration: 1112002

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11503-TUN1 | SEQ-TUN1.D | 04/23/11 12:45 |
| Calibration Check | 1D11503-CCV1 | SEQ-CCV1.D | 04/23/11 13:03 |
| LCS | 1D18014-BS1 | D18014L1.D | 04/23/11 13:55 |
| Blank | 1D18014-BLK1 | D18014B1.D | 04/23/11 14:20 |
| 05-SS-037-0204-D | 1104084-02 | 0408402.D | 04/23/11 14:45 |
| 05-SS-037-0204 | 1104084-03 | 0408403.D | 04/23/11 15:09 |
| 05-SS-038-0204 | 1104084-04 | 0408404.D | 04/23/11 15:34 |
| 05-SS-038-0204 | 1D09816-MS1 | 0408404M.D | 04/23/11 15:59 |
| 05-SS-038-0204 | 1D09816-MSD1 | 0408404S.D | 04/23/11 16:24 |
| 05-SS-039-0204 | 1104084-05 | 0408405.D | 04/23/11 16:48 |
| 05-SS-040-0204 | 1104084-07 | 0408407.D | 04/23/11 17:13 |
| 05-SS-041-0204 | 1104084-08 | 0408408.D | 04/23/11 17:38 |
| 05-SS-042-0204 | 1104084-09 | 0408409.D | 04/23/11 18:03 |
| 05-SS-043-0204 | 1104084-10 | 0408410.D | 04/23/11 18:27 |
| 05-SS-044-0204 | 1104084-11 | 0408411.D | 04/23/11 18:52 |
| 05-SS-045-0204 | 1104107-01 | 0410701.D | 04/23/11 19:16 |
| 05-SS-045-0204-D | 1104107-02 | 0410702.D | 04/23/11 19:41 |
| 05-SS-046-0204 | 1104107-03 | 0410703.D | 04/23/11 20:06 |
| 05-SS-046-0204 | 1D18014-MS1 | 0410703M.D | 04/23/11 20:30 |
| 05-SS-046-0204 | 1D18014-MSD1 | 0410703S.D | 04/23/11 20:55 |
| 05-SS-047-0204 | 1104107-04 | 0410704.D | 04/23/11 21:20 |
| 05-SS-048-0204 | 1104107-05 | 0410705.D | 04/23/11 21:44 |
| 05-SS-049-0204 | 1104107-06 | 0410706.D | 04/23/11 22:09 |
| 05-SS-050-0204 | 1104107-07 | 0410707.D | 04/23/11 22:34 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/23/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:45 |
| Sequence: | 1D11503 | Lab Sample ID: | 1D11503-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.7 | PASS |
| 68 | Less than 2% of 69 | 1.59 | PASS |
| 69 | Less than 200% of 198 | 50.6 | PASS |
| 70 | Less than 2% of 69 | 0.546 | PASS |
| 127 | 40 - 60% of 198 | 54.4 | PASS |
| 197 | Less than 1% of 198 | 0.0173 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.77 | PASS |
| 275 | 10 - 30% of 198 | 28.9 | PASS |
| 365 | 1 - 200% of 198 | 4.3 | PASS |
| 441 | 0.001 - 100% of 443 | 84 | PASS |
| 442 | 40 - 200% of 198 | 159 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11503 | Injection Date: | 04/23/11 |
| Lab Sample ID: | 1D11503-CCV1 | Injection Time: | 13:03 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.482 | 0.8172941 | 0.7326331 | | -10.4 | 20 |
| Acenaphthylene | A | 5.000 | 4.701 | 1.207785 | 1.135528 | | -6.0 | 20 |
| Anthracene | A | 5.000 | 5.051 | 1.161613 | 1.173526 | | 1.0 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.129 | 0.7794695 | 0.7996215 | | 2.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.719 | 1.060401 | 1.000759 | | -5.6 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.138 | 1.376623 | 1.139447 | | -17.2 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.110 | 0.8408092 | 0.6911002 | | -17.8 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.958 | 1.327054 | 1.315878 | | -0.8 | 20 |
| Chrysene | A | 5.000 | 5.604 | 0.7510425 | 0.8417467 | | 12.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.472 | 0.7885715 | 0.7052772 | | -10.6 | 20 |
| Fluoranthene | A | 5.000 | 5.045 | 1.110642 | 1.120728 | | 0.9 | 20 |
| Fluorene | A | 5.000 | 4.846 | 0.806718 | 0.7818377 | | -3.1 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.502 | 0.9694231 | 0.8728747 | | -10.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.467 | 0.8159287 | 0.7288973 | | -10.7 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.564 | 0.8312967 | 0.7588245 | | -8.7 | 20 |
| Naphthalene | A | 5.000 | 4.353 | 1.267467 | 1.103514 | | -12.9 | 20 |
| Phenanthrene | A | 5.000 | 4.869 | 1.148831 | 1.118711 | | -2.6 | 20 |
| Pyrene | A | 5.000 | 5.215 | 1.116922 | 1.164925 | | 4.3 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.517 | 0.8530656 | 0.770719 | | -9.7 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.005 | 0.6997344 | 0.700503 | | 0.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11709 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11709-TUN1 | SEQ-TUN1.D | 04/26/11 09:40 |
| Calibration Check | 1D11709-CCV1 | SEQ-CCV1.D | 04/26/11 09:58 |
| LCS | 1D09816-BS2 | D9816L1R.D | 04/26/11 18:29 |
| Blank | 1D09816-BLK2 | D9816B1R.D | 04/26/11 18:54 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/26/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 09:40 |
| Sequence: | 1D11709 | Lab Sample ID: | 1D11709-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.67 | PASS |
| 69 | Less than 200% of 198 | 50.9 | PASS |
| 70 | Less than 2% of 69 | 0.551 | PASS |
| 127 | 40 - 60% of 198 | 55.4 | PASS |
| 197 | Less than 1% of 198 | 0.524 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.63 | PASS |
| 275 | 10 - 30% of 198 | 29 | PASS |
| 365 | 1 - 200% of 198 | 4.48 | PASS |
| 441 | 0.001 - 100% of 443 | 83.2 | PASS |
| 442 | 40 - 200% of 198 | 167 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11709 | Injection Date: | 04/26/11 |
| Lab Sample ID: | 1D11709-CCV1 | Injection Time: | 09:58 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.511 | 0.8172941 | 0.7373019 | | -9.8 | 20 |
| Acenaphthylene | A | 5.000 | 4.894 | 1.207785 | 1.182093 | | -2.1 | 20 |
| Anthracene | A | 5.000 | 5.059 | 1.161613 | 1.17528 | | 1.2 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.023 | 0.7794695 | 0.7831008 | | 0.5 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.682 | 1.060401 | 0.9928649 | | -6.4 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.259 | 1.376623 | 1.172701 | | -14.8 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.372 | 0.8408092 | 0.735179 | | -12.6 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.884 | 1.327054 | 1.296285 | | -2.3 | 20 |
| Chrysene | A | 5.000 | 5.142 | 0.7510425 | 0.7724016 | | 2.8 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.110 | 0.7885715 | 0.6482319 | | -17.8 | 20 |
| Fluoranthene | A | 5.000 | 5.004 | 1.110642 | 1.111578 | | 0.08 | 20 |
| Fluorene | A | 5.000 | 4.755 | 0.806718 | 0.7672523 | | -4.9 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.312 | 0.9694231 | 0.8361335 | | -13.7 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.581 | 0.8159287 | 0.7476352 | | -8.4 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.823 | 0.8312967 | 0.8019372 | | -3.5 | 20 |
| Naphthalene | A | 5.000 | 4.692 | 1.267467 | 1.189496 | | -6.2 | 20 |
| Phenanthrene | A | 5.000 | 4.951 | 1.148831 | 1.13752 | | -1.0 | 20 |
| Pyrene | A | 5.000 | 5.157 | 1.116922 | 1.152054 | | 3.1 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.613 | 0.8530656 | 0.7870448 | | -7.7 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.824 | 0.6997344 | 0.6750965 | | -3.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D09816 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-037-0204-D | 1104084-02 | 04/18/11 07:18 | 15.30 | 1.00 |
| 05-SS-037-0204 | 1104084-03 | 04/18/11 07:18 | 15.20 | 1.00 |
| 05-SS-038-0204 | 1104084-04 | 04/18/11 07:18 | 15.80 | 1.00 |
| 05-SS-039-0204 | 1104084-05 | 04/18/11 07:18 | 15.50 | 1.00 |
| 05-SS-040-0204 | 1104084-07 | 04/18/11 07:18 | 15.50 | 1.00 |
| 05-SS-041-0204 | 1104084-08 | 04/18/11 07:18 | 15.60 | 1.00 |
| 05-SS-042-0204 | 1104084-09 | 04/18/11 07:18 | 15.50 | 1.00 |
| 05-SS-043-0204 | 1104084-10 | 04/18/11 07:18 | 15.50 | 1.00 |
| 05-SS-044-0204 | 1104084-11 | 04/18/11 07:18 | 15.70 | 1.00 |
| Blank | 1D09816-BLK2 | 04/18/11 11:55 | 15.00 | 1.00 |
| LCS | 1D09816-BS2 | 04/18/11 11:55 | 15.00 | 1.00 |
| 05-SS-038-0204 | 1D09816-MS1 | 04/18/11 07:18 | 15.50 | 1.00 |
| 05-SS-038-0204 | 1D09816-MSD1 | 04/18/11 07:18 | 15.20 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D09816-BLK2 | File ID: | D9816B1R.D |
| Sampled: | | Prepared: | | Analyzed: | 04/26/11 18:54 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D09816 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.752 | 82.6 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 3.318 | 99.5 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D09816 | Laboratory ID: | 1D09816-BS2 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.04919 | 73.8 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.04753 | 71.3 | 23 - 126 |
| Anthracene | 0.06667 | 0.05447 | 81.7 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.06160 | 92.4 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.05343 | 80.1 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.05124 | 76.9 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.05038 | 75.6 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.05385 | 80.8 | 42 - 129 |
| Chrysene | 0.06667 | 0.06552 | 98.3 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.06667 | 0.04767 | 71.5 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.06170 | 92.6 | 30 - 142 |
| Fluorene | 0.06667 | 0.05148 | 77.2 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.04763 | 71.4 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.04379 | 65.7 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.04661 | 69.9 | 30 - 111 |
| Naphthalene | 0.06667 | 0.04750 | 71.2 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.05786 | 86.8 | 32 - 127 |
| Pyrene | 0.06667 | 0.06308 | 94.6 | 28 - 130 |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D11008 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-039 | 1104084-06 | 04/11/11 13:56 | 900.00 | 1.00 |
| Blank | 1D11008-BLK1 | 04/11/11 13:56 | 1,000.00 | 1.00 |
| LCS | 1D11008-BS1 | 04/11/11 13:56 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D11008-BLK1 | File ID: | D11008B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/14/11 18:51 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1D11008 Sequence: 1D10520 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 41.45 | 82.9 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 38.06 | 76.1 | 34 - 167 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D11008 | Laboratory ID: | 1D11008-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 1.000 | 1.060 | 106 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.9215 | 92.1 | 43 - 140 |
| Anthracene | 1.000 | 1.053 | 105 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 0.9335 | 93.3 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.9202 | 92.0 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 1.082 | 108 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.9235 | 92.3 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 1.168 | 117 | 49 - 165 |
| Chrysene | 1.000 | 0.7667 | 76.7 | 51 - 155 |
| Dibenz(a,h)anthracene | 1.000 | 0.9260 | 92.6 | 28 - 153 |
| Fluoranthene | 1.000 | 0.9700 | 97.0 | 47 - 158 |
| Fluorene | 1.000 | 1.150 | 115 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.8928 | 89.3 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.9587 | 95.9 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 1.045 | 105 | 36 - 121 |
| Naphthalene | 1.000 | 0.9942 | 99.4 | 39 - 125 |
| Phenanthrene | 1.000 | 1.108 | 111 | 46 - 144 |
| Pyrene | 1.000 | 1.001 | 100 | 39 - 158 |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D13011 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 04 | 1104107-08 | 04/13/11 11:27 | 1,000.00 | 1.00 |
| EQUIP BLANK 05 | 1104107-09 | 04/13/11 11:27 | 1,000.00 | 1.00 |
| 05-MW-049 | 1104107-10 | 04/13/11 11:27 | 1,000.00 | 1.00 |
| Blank | 1D13011-BLK1 | 04/13/11 11:27 | 1,000.00 | 1.00 |
| LCS | 1D13011-BS1 | 04/13/11 11:27 | 1,000.00 | 1.00 |
| LCS Dup | 1D13011-BSD1 | 04/13/11 11:27 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D13011-BLK1 | File ID: | D13011B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/13/11 17:07 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1D13011 Sequence: 1D10415 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 56-55-3 | Benzo(a)anthracene | 0.221 | 0.0500 | 0.100 | 0.200 | |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 35.55 | 71.1 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 36.18 | 72.4 | 34 - 167 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D13011 | Laboratory ID: | 1D13011-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 1.000 | 1.020 | 102 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.9462 | 94.6 | 43 - 140 |
| Anthracene | 1.000 | 1.040 | 104 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 0.8757 | 87.6 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 1.025 | 103 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 1.112 | 111 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.7845 | 78.4 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 1.149 | 115 | 49 - 165 |
| Chrysene | 1.000 | 0.7718 | 77.2 | 51 - 155 |
| Dibenz(a,h)anthracene | 1.000 | 0.7629 | 76.3 | 28 - 153 |
| Fluoranthene | 1.000 | 0.9165 | 91.6 | 47 - 158 |
| Fluorene | 1.000 | 1.094 | 109 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.8262 | 82.6 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.8743 | 87.4 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.9904 | 99.0 | 36 - 121 |
| Naphthalene | 1.000 | 0.8668 | 86.7 | 39 - 125 |
| Phenanthrene | 1.000 | 1.072 | 107 | 46 - 144 |
| Pyrene | 1.000 | 0.9421 | 94.2 | 39 - 158 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 1.000 | 0.7795 | 77.9 | 26.8 | 30 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.7005 | 70.0 | 29.8 | 30 | 43 - 140 |
| Anthracene | 1.000 | 0.7642 | 76.4 | 30.6 * | 30 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 0.8195 | 81.9 | 6.64 | 30 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.7802 | 78.0 | 27.1 | 30 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.8518 | 85.2 | 26.5 | 30 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.5699 | 57.0 | 31.7 * | 30 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 0.8516 | 85.2 | 29.7 | 30 | 49 - 165 |
| Chrysene | 1.000 | 0.6551 | 65.5 | 16.3 | 30 | 51 - 155 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D13011 | Laboratory ID: | 1D13011-BSD1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 1.000 | 0.5719 | 57.2 | 28.6 | 30 | 28 - 153 |
| Fluoranthene | 1.000 | 0.7739 | 77.4 | 16.9 | 30 | 47 - 158 |
| Fluorene | 1.000 | 0.7948 | 79.5 | 31.7 * | 30 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.6118 | 61.2 | 29.8 | 30 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.6246 | 62.5 | 33.3 * | 30 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.7213 | 72.1 | 31.4 * | 30 | 36 - 121 |
| Naphthalene | 1.000 | 0.6704 | 67.0 | 25.6 | 30 | 39 - 125 |
| Phenanthrene | 1.000 | 0.8268 | 82.7 | 25.8 | 30 | 46 - 144 |
| Pyrene | 1.000 | 0.7893 | 78.9 | 17.7 | 30 | 39 - 158 |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D18014 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-045-0204 | 1104107-01 | 04/19/11 17:45 | 15.70 | 1.00 |
| 05-SS-045-0204-D | 1104107-02 | 04/19/11 17:45 | 15.30 | 1.00 |
| 05-SS-046-0204 | 1104107-03 | 04/19/11 17:45 | 15.40 | 1.00 |
| 05-SS-047-0204 | 1104107-04 | 04/19/11 17:45 | 15.20 | 1.00 |
| 05-SS-048-0204 | 1104107-05 | 04/19/11 17:45 | 15.10 | 1.00 |
| 05-SS-049-0204 | 1104107-06 | 04/19/11 17:45 | 15.50 | 1.00 |
| 05-SS-050-0204 | 1104107-07 | 04/19/11 17:45 | 15.10 | 1.00 |
| Blank | 1D18014-BLK1 | 04/19/11 17:45 | 15.00 | 1.00 |
| LCS | 1D18014-BS1 | 04/19/11 17:45 | 15.00 | 1.00 |
| 05-SS-046-0204 | 1D18014-MS1 | 04/19/11 17:45 | 15.30 | 1.00 |
| 05-SS-046-0204 | 1D18014-MSD1 | 04/19/11 17:45 | 15.10 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D18014-BLK1 | File ID: | D18014B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/23/11 14:20 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.373 | 71.2 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 2.977 | 89.3 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D18014 | Laboratory ID: | 1D18014-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.04573 | 68.6 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.04088 | 61.3 | 23 - 126 |
| Anthracene | 0.06667 | 0.04785 | 71.8 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.04987 | 74.8 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.04868 | 73.0 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.04550 | 68.3 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.04353 | 65.3 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.05021 | 75.3 | 42 - 129 |
| Chrysene | 0.06667 | 0.05214 | 78.2 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.06667 | 0.05075 | 76.1 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.05008 | 75.1 | 30 - 142 |
| Fluorene | 0.06667 | 0.04636 | 69.5 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.04962 | 74.4 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.04158 | 62.4 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.04479 | 67.2 | 30 - 111 |
| Naphthalene | 0.06667 | 0.04321 | 64.8 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.04933 | 74.0 | 32 - 127 |
| Pyrene | 0.06667 | 0.05147 | 77.2 | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

05-SS-038-0204

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D09816

% Solids: 91.60

Source Sample Name: **1104084-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 0.07043 | ND | 0.05159 | 73.2 | | 28 - 110 |
| Acenaphthylene | 0.07043 | ND | 0.04887 | 69.4 | | 23 - 126 |
| Anthracene | 0.07043 | ND | 0.05267 | 74.8 | | 28 - 136 |
| Benzo(a)anthracene | 0.07043 | ND | 0.05907 | 83.9 | | 31 - 146 |
| Benzo(a)pyrene | 0.07043 | ND | 0.05663 | 80.4 | | 28 - 128 |
| Benzo(b)fluoranthene | 0.07043 | ND | 0.05642 | 80.1 | | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07043 | ND | 0.05184 | 73.6 | | 21 - 149 |
| Benzo(k)fluoranthene | 0.07043 | ND | 0.06441 | 91.4 | | 42 - 129 |
| Chrysene | 0.07043 | ND | 0.05854 | 83.1 | | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07043 | ND | 0.05475 | 77.7 | | 30 - 138 |
| Fluoranthene | 0.07043 | ND | 0.06049 | 85.9 | | 30 - 142 |
| Fluorene | 0.07043 | ND | 0.05384 | 76.4 | | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07043 | ND | 0.05232 | 74.3 | | 17 - 164 |
| 1-Methylnaphthalene | 0.07043 | ND | 0.04623 | 65.6 | | 30 - 111 |
| 2-Methylnaphthalene | 0.07043 | ND | 0.04902 | 69.6 | | 30 - 111 |
| Naphthalene | 0.07043 | ND | 0.04729 | 67.1 | | 29 - 106 |
| Phenanthrene | 0.07043 | ND | 0.05809 | 82.5 | | 32 - 127 |
| Pyrene | 0.07043 | ND | 0.06130 | 87.0 | | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

05-SS-038-0204

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D09816

% Solids: 91.60

Source Sample Name: **1104084-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.07182 | 0.05460 | 76.0 | 5.67 | | 30 | 28 - 110 |
| Acenaphthylene | 0.07182 | 0.05103 | 71.1 | 4.34 | | 30 | 23 - 126 |
| Anthracene | 0.07182 | 0.05814 | 81.0 | 9.87 | | 30 | 28 - 136 |
| Benzo(a)anthracene | 0.07182 | 0.05603 | 78.0 | 5.28 | | 30 | 31 - 146 |
| Benzo(a)pyrene | 0.07182 | 0.05963 | 83.0 | 5.16 | | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 0.07182 | 0.05196 | 72.4 | 8.22 | | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07182 | 0.06128 | 85.3 | 16.7 | | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 0.07182 | 0.05893 | 82.1 | 8.88 | | 30 | 42 - 129 |
| Chrysene | 0.07182 | 0.05586 | 77.8 | 4.68 | | 30 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07182 | 0.06668 | 92.8 | 19.7 | | 30 | 30 - 138 |
| Fluoranthene | 0.07182 | 0.05921 | 82.4 | 2.14 | | 30 | 30 - 142 |
| Fluorene | 0.07182 | 0.05724 | 79.7 | 6.12 | | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07182 | 0.06354 | 88.5 | 19.4 | | 30 | 17 - 164 |
| 1-Methylnaphthalene | 0.07182 | 0.05134 | 71.5 | 10.5 | | 30 | 30 - 111 |
| 2-Methylnaphthalene | 0.07182 | 0.05551 | 77.3 | 12.4 | | 30 | 30 - 111 |
| Naphthalene | 0.07182 | 0.05156 | 71.8 | 8.64 | | 30 | 29 - 106 |
| Phenanthrene | 0.07182 | 0.05964 | 83.0 | 2.64 | | 30 | 32 - 127 |
| Pyrene | 0.07182 | 0.06132 | 85.4 | 0.0324 | | 30 | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

05-SS-046-0204

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D18014

% Solids: 91.81

Source Sample Name: **1104107-03**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 0.07119 | ND | 0.05291 | 74.3 | | 28 - 110 |
| Acenaphthylene | 0.07119 | ND | 0.05182 | 72.8 | | 23 - 126 |
| Anthracene | 0.07119 | ND | 0.05820 | 81.8 | | 28 - 136 |
| Benzo(a)anthracene | 0.07119 | ND | 0.05807 | 81.6 | | 31 - 146 |
| Benzo(a)pyrene | 0.07119 | ND | 0.05685 | 79.9 | | 28 - 128 |
| Benzo(b)fluoranthene | 0.07119 | ND | 0.05029 | 70.6 | | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07119 | ND | 0.05672 | 79.7 | | 21 - 149 |
| Benzo(k)fluoranthene | 0.07119 | ND | 0.06251 | 87.8 | | 42 - 129 |
| Chrysene | 0.07119 | ND | 0.05769 | 81.0 | | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07119 | ND | 0.05728 | 80.5 | | 30 - 138 |
| Fluoranthene | 0.07119 | ND | 0.05892 | 82.8 | | 30 - 142 |
| Fluorene | 0.07119 | ND | 0.05816 | 81.7 | | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07119 | ND | 0.05867 | 82.4 | | 17 - 164 |
| 1-Methylnaphthalene | 0.07119 | ND | 0.04523 | 63.5 | | 30 - 111 |
| 2-Methylnaphthalene | 0.07119 | ND | 0.05239 | 73.6 | | 30 - 111 |
| Naphthalene | 0.07119 | ND | 0.05182 | 72.8 | | 29 - 106 |
| Phenanthrene | 0.07119 | ND | 0.05911 | 83.0 | | 32 - 127 |
| Pyrene | 0.07119 | ND | 0.06103 | 85.7 | | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270C

05-SS-046-0204

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D18014

% Solids: 91.81

Source Sample Name: **1104107-03**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.07213 | 0.05183 | 71.9 | 2.06 | | 30 | 28 - 110 |
| Acenaphthylene | 0.07213 | 0.04930 | 68.3 | 4.98 | | 30 | 23 - 126 |
| Anthracene | 0.07213 | 0.05713 | 79.2 | 1.85 | | 30 | 28 - 136 |
| Benzo(a)anthracene | 0.07213 | 0.05799 | 80.4 | 0.146 | | 30 | 31 - 146 |
| Benzo(a)pyrene | 0.07213 | 0.05574 | 77.3 | 1.96 | | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 0.07213 | 0.04764 | 66.0 | 5.41 | | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.07213 | 0.05101 | 70.7 | 10.6 | | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 0.07213 | 0.05525 | 76.6 | 12.3 | | 30 | 42 - 129 |
| Chrysene | 0.07213 | 0.05738 | 79.6 | 0.536 | | 30 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.07213 | 0.05594 | 77.6 | 2.36 | | 30 | 30 - 138 |
| Fluoranthene | 0.07213 | 0.05902 | 81.8 | 0.180 | | 30 | 30 - 142 |
| Fluorene | 0.07213 | 0.05586 | 77.4 | 4.05 | | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.07213 | 0.05563 | 77.1 | 5.32 | | 30 | 17 - 164 |
| 1-Methylnaphthalene | 0.07213 | 0.04769 | 66.1 | 5.28 | | 30 | 30 - 111 |
| 2-Methylnaphthalene | 0.07213 | 0.05164 | 71.6 | 1.45 | | 30 | 30 - 111 |
| Naphthalene | 0.07213 | 0.05005 | 69.4 | 3.47 | | 30 | 29 - 106 |
| Phenanthrene | 0.07213 | 0.05761 | 79.9 | 2.56 | | 30 | 32 - 127 |
| Pyrene | 0.07213 | 0.06002 | 83.2 | 1.67 | | 30 | 28 - 130 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10415 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10415-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/13/11 16:08 | | |
| 2-Fluorobiphenyl | 5.000 | 95.8 | 80 - 120 | 8.31 | 8.31 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 95.4 | 80 - 120 | 13.99 | 13.99 | 0.0000 | +/-0.500 | |
| **Blank (1D13011-BLK1 ) ug/L** | | | | Lab File ID: D13011B1.D | | Analyzed: 04/13/11 17:07 | | |
| 2-Fluorobiphenyl | 50.00 | 71.1 | 34 - 167 | 8.32 | 8.31 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 72.4 | 34 - 167 | 14 | 13.99 | 0.0100 | +/-0.500 | |
| **LCS (1D13011-BS1 ) ug/L** | | | | Lab File ID: D13011L1.D | | Analyzed: 04/13/11 17:35 | | |
| 2-Fluorobiphenyl | 50.00 | 95.9 | 34 - 167 | 8.319 | 8.31 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 73.0 | 34 - 167 | 14 | 13.99 | 0.0100 | +/-0.500 | |
| **LCS Dup (1D13011-BSD1 ) ug/L** | | | | Lab File ID: D13011L2.D | | Analyzed: 04/13/11 18:03 | | |
| 2-Fluorobiphenyl | 50.00 | 67.8 | 34 - 167 | 8.32 | 8.31 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 60.0 | 34 - 167 | 14 | 13.99 | 0.0100 | +/-0.500 | |
| **EQUIP BLANK 04 (1104107-08 ) ug/L** | | | | Lab File ID: 0410708.D | | Analyzed: 04/13/11 18:31 | | |
| 2-Fluorobiphenyl | 50.00 | 57.8 | 34 - 167 | 8.319 | 8.31 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 41.4 | 34 - 167 | 14 | 13.99 | 0.0100 | +/-0.500 | |
| **EQUIP BLANK 05 (1104107-09 ) ug/L** | | | | Lab File ID: 0410709.D | | Analyzed: 04/13/11 18:59 | | |
| 2-Fluorobiphenyl | 50.00 | 63.5 | 34 - 167 | 8.319 | 8.31 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 54.9 | 34 - 167 | 13.999 | 13.99 | 0.0090 | +/-0.500 | |
| **05-MW-049 (1104107-10 ) ug/L** | | | | Lab File ID: 0410710.D | | Analyzed: 04/13/11 19:27 | | |
| 2-Fluorobiphenyl | 50.00 | 59.8 | 34 - 167 | 8.32 | 8.31 | 0.0100 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 22.9 | 34 - 167 | 13.99 | 13.99 | 0.0000 | +/-0.500 | * |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10520 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10520-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/14/11 17:55 | | |
| 2-Fluorobiphenyl | 5.000 | 91.2 | 80 - 120 | 8.254 | 8.254 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 93.5 | 80 - 120 | 13.925 | 13.925 | 0.0000 | +/-0.500 | |
| **Blank (1D11008-BLK1 ) ug/L** | | | | Lab File ID: D11008B1.D | | Analyzed: 04/14/11 18:51 | | |
| 2-Fluorobiphenyl | 50.00 | 82.9 | 34 - 167 | 8.254 | 8.254 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 76.1 | 34 - 167 | 13.934 | 13.925 | 0.0090 | +/-0.500 | |
| **LCS (1D11008-BS1 ) ug/L** | | | | Lab File ID: D11008L1.D | | Analyzed: 04/14/11 19:18 | | |
| 2-Fluorobiphenyl | 50.00 | 87.3 | 34 - 167 | 8.254 | 8.254 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 95.8 | 34 - 167 | 13.935 | 13.925 | 0.0100 | +/-0.500 | |
| **05-MW-039 (1104084-06 ) ug/L** | | | | Lab File ID: 0408406.D | | Analyzed: 04/14/11 20:41 | | |
| 2-Fluorobiphenyl | 55.56 | 63.8 | 34 - 167 | 8.254 | 8.254 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 55.56 | 45.9 | 34 - 167 | 13.925 | 13.925 | 0.0000 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11503 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11503-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/23/11 13:03 | | |
| 2-Fluorobiphenyl | 5.000 | 90.3 | 80 - 120 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 100 | 80 - 120 | 11.639 | 11.639 | 0.0000 | +/-0.500 | |
| **LCS (1D18014-BS1 ) mg/Kg wet** | | | | Lab File ID: D18014L1.D | | Analyzed: 04/23/11 13:55 | | |
| 2-Fluorobiphenyl | 3.333 | 66.4 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 82.4 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **Blank (1D18014-BLK1 ) mg/Kg wet** | | | | Lab File ID: D18014B1.D | | Analyzed: 04/23/11 14:20 | | |
| 2-Fluorobiphenyl | 3.333 | 71.2 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 89.3 | 14 - 129 | 11.648 | 11.639 | 0.0090 | +/-0.500 | |
| **05-SS-037-0204-D (1104084-02 ) mg/Kg dry** | | | | Lab File ID: 0408402.D | | Analyzed: 04/23/11 14:45 | | |
| 2-Fluorobiphenyl | 3.841 | 79.2 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.841 | 91.7 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **05-SS-037-0204 (1104084-03 ) mg/Kg dry** | | | | Lab File ID: 0408403.D | | Analyzed: 04/23/11 15:09 | | |
| 2-Fluorobiphenyl | 3.706 | 73.2 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.706 | 83.4 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **05-SS-038-0204 (1104084-04 ) mg/Kg dry** | | | | Lab File ID: 0408404.D | | Analyzed: 04/23/11 15:34 | | |
| 2-Fluorobiphenyl | 3.455 | 74.8 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.455 | 89.2 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **Matrix Spike (1D09816-MS1 ) mg/Kg dry** | | | | Lab File ID: 0408404M.D | | Analyzed: 04/23/11 15:59 | | |
| 2-Fluorobiphenyl | 3.521 | 71.6 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.521 | 91.7 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **Matrix Spike Dup (1D09816-MSD1 ) mg/Kg dry** | | | | Lab File ID: 0408404S.D | | Analyzed: 04/23/11 16:24 | | |
| 2-Fluorobiphenyl | 3.591 | 75.1 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.591 | 84.5 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **05-SS-039-0204 (1104084-05 ) mg/Kg dry** | | | | Lab File ID: 0408405.D | | Analyzed: 04/23/11 16:48 | | |
| 2-Fluorobiphenyl | 3.497 | 78.1 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.497 | 90.9 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **05-SS-040-0204 (1104084-07 ) mg/Kg dry** | | | | Lab File ID: 0408407.D | | Analyzed: 04/23/11 17:13 | | |
| 2-Fluorobiphenyl | 3.486 | 79.7 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.486 | 87.9 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **05-SS-041-0204 (1104084-08 ) mg/Kg dry** | | | | Lab File ID: 0408408.D | | Analyzed: 04/23/11 17:38 | | |
| 2-Fluorobiphenyl | 3.441 | 79.3 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.441 | 89.1 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11503 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-042-0204 (1104084-09 ) mg/Kg dry** | | | | Lab File ID: 0408409.D | | Analyzed: 04/23/11 18:03 | | |
| 2-Fluorobiphenyl | 3.564 | 78.9 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.564 | 88.5 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **05-SS-043-0204 (1104084-10 ) mg/Kg dry** | | | | Lab File ID: 0408410.D | | Analyzed: 04/23/11 18:27 | | |
| 2-Fluorobiphenyl | 3.807 | 69.6 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.807 | 80.9 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **05-SS-044-0204 (1104084-11 ) mg/Kg dry** | | | | Lab File ID: 0408411.D | | Analyzed: 04/23/11 18:52 | | |
| 2-Fluorobiphenyl | 3.825 | 74.2 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.825 | 90.8 | 14 - 129 | 11.658 | 11.639 | 0.0190 | +/-0.500 | |
| **05-SS-045-0204 (1104107-01 ) mg/Kg dry** | | | | Lab File ID: 0410701.D | | Analyzed: 04/23/11 19:16 | | |
| 2-Fluorobiphenyl | 3.522 | 73.5 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.522 | 82.3 | 14 - 129 | 11.648 | 11.639 | 0.0090 | +/-0.500 | |
| **05-SS-045-0204-D (1104107-02 ) mg/Kg dry** | | | | Lab File ID: 0410702.D | | Analyzed: 04/23/11 19:41 | | |
| 2-Fluorobiphenyl | 3.580 | 80.1 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.580 | 81.1 | 14 - 129 | 11.649 | 11.639 | 0.0100 | +/-0.500 | |
| **05-SS-046-0204 (1104107-03 ) mg/Kg dry** | | | | Lab File ID: 0410703.D | | Analyzed: 04/23/11 20:06 | | |
| 2-Fluorobiphenyl | 3.536 | 78.8 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.536 | 79.6 | 14 - 129 | 11.648 | 11.639 | 0.0090 | +/-0.500 | |
| **Matrix Spike (1D18014-MS1 ) mg/Kg dry** | | | | Lab File ID: 0410703M.D | | Analyzed: 04/23/11 20:30 | | |
| 2-Fluorobiphenyl | 3.559 | 75.4 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.559 | 88.7 | 14 - 129 | 11.649 | 11.639 | 0.0100 | +/-0.500 | |
| **Matrix Spike Dup (1D18014-MSD1 ) mg/Kg dry** | | | | Lab File ID: 0410703S.D | | Analyzed: 04/23/11 20:55 | | |
| 2-Fluorobiphenyl | 3.607 | 72.7 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.607 | 84.2 | 14 - 129 | 11.649 | 11.639 | 0.0100 | +/-0.500 | |
| **05-SS-047-0204 (1104107-04 ) mg/Kg dry** | | | | Lab File ID: 0410704.D | | Analyzed: 04/23/11 21:20 | | |
| 2-Fluorobiphenyl | 3.877 | 71.6 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.877 | 74.9 | 14 - 129 | 11.649 | 11.639 | 0.0100 | +/-0.500 | |
| **05-SS-048-0204 (1104107-05 ) mg/Kg dry** | | | | Lab File ID: 0410705.D | | Analyzed: 04/23/11 21:44 | | |
| 2-Fluorobiphenyl | 3.593 | 77.5 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.593 | 88.9 | 14 - 129 | 11.649 | 11.639 | 0.0100 | +/-0.500 | |
| **05-SS-049-0204 (1104107-06 ) mg/Kg dry** | | | | Lab File ID: 0410706.D | | Analyzed: 04/23/11 22:09 | | |
| 2-Fluorobiphenyl | 3.804 | 77.8 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.804 | 88.3 | 14 - 129 | 11.649 | 11.639 | 0.0100 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11503 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-050-0204 (1104107-07 ) mg/Kg dry** | | | | Lab File ID: 0410707.D | | Analyzed: 04/23/11 22:34 | | |
| 2-Fluorobiphenyl | 3.693 | 74.3 | 14 - 129 | 7.075 | 7.075 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.693 | 96.5 | 14 - 129 | 11.649 | 11.639 | 0.0100 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11709 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11709-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/26/11 09:58 | | |
| 2-Fluorobiphenyl | 5.000 | 92.3 | 80 - 120 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 96.5 | 80 - 120 | 11.651 | 11.651 | 0.0000 | +/-0.500 | |
| **LCS (1D09816-BS2 ) mg/Kg wet** | | | | Lab File ID: D9816L1R.D | | Analyzed: 04/26/11 18:29 | | |
| 2-Fluorobiphenyl | 3.333 | 73.3 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 96.5 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |
| **Blank (1D09816-BLK2 ) mg/Kg wet** | | | | Lab File ID: D9816B1R.D | | Analyzed: 04/26/11 18:54 | | |
| 2-Fluorobiphenyl | 3.333 | 82.6 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 99.5 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 1D10415

SDG: CTOJM26_006
Project: NAS Pensacola CTO JM26 Saufley
Instrument: MS-BNA4
Calibration: 1061004

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10415-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/13/11 16:08 | | | |
| Phenanthrene-d10 | 132782 | 11.527 | 106904 | 11.432 | 124 | 50 - 200 | 0.0950 | +/-0.50 | |
| Perylene-d12 | 86001 | 17.569 | 80420 | 16.536 | 107 | 50 - 200 | 1.0330 | +/-0.50 | |
| **Blank (1D13011-BLK1 )** | | | Lab File ID: D13011B1.D | | | Analyzed: 04/13/11 17:07 | | | |
| Phenanthrene-d10 | 138052 | 11.536 | 132782 | 11.527 | 104 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 71022 | 17.579 | 86001 | 17.569 | 83 | 50 - 200 | 0.0100 | +/-0.50 | |
| **LCS (1D13011-BS1 )** | | | Lab File ID: D13011L1.D | | | Analyzed: 04/13/11 17:35 | | | |
| Phenanthrene-d10 | 104626 | 11.536 | 132782 | 11.527 | 79 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 35090 | 17.579 | 86001 | 17.569 | 41 | 50 - 200 | 0.0100 | +/-0.50 | * |
| **LCS Dup (1D13011-BSD1 )** | | | Lab File ID: D13011L2.D | | | Analyzed: 04/13/11 18:03 | | | |
| Phenanthrene-d10 | 132684 | 11.536 | 132782 | 11.527 | 100 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 61877 | 17.579 | 86001 | 17.569 | 72 | 50 - 200 | 0.0100 | +/-0.50 | |
| **EQUIP BLANK 04 (1104107-08 )** | | | Lab File ID: 0410708.D | | | Analyzed: 04/13/11 18:31 | | | |
| Phenanthrene-d10 | 147871 | 11.536 | 132782 | 11.527 | 111 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 75354 | 17.579 | 86001 | 17.569 | 88 | 50 - 200 | 0.0100 | +/-0.50 | |
| **EQUIP BLANK 05 (1104107-09 )** | | | Lab File ID: 0410709.D | | | Analyzed: 04/13/11 18:59 | | | |
| Phenanthrene-d10 | 139969 | 11.536 | 132782 | 11.527 | 105 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 64512 | 17.579 | 86001 | 17.569 | 75 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-MW-049 (1104107-10 )** | | | Lab File ID: 0410710.D | | | Analyzed: 04/13/11 19:27 | | | |
| Phenanthrene-d10 | 135566 | 11.536 | 132782 | 11.527 | 102 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 58835 | 17.579 | 86001 | 17.569 | 68 | 50 - 200 | 0.0100 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10520 | Instrument: | MS-BNA4 |
| | | Calibration: | 1061004 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10520-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/14/11 17:55 | | | |
| Phenanthrene-d10 | 144842 | 11.462 | 106904 | 11.432 | 135 | 50 - 200 | 0.0300 | +/-0.50 | |
| Perylene-d12 | 81449 | 17.486 | 80420 | 16.536 | 101 | 50 - 200 | 0.9500 | +/-0.50 | |
| **Blank (1D11008-BLK1 )** | | | Lab File ID: D11008B1.D | | | Analyzed: 04/14/11 18:51 | | | |
| Phenanthrene-d10 | 124344 | 11.462 | 144842 | 11.462 | 86 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 42697 | 17.486 | 81449 | 17.486 | 52 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS (1D11008-BS1 )** | | | Lab File ID: D11008L1.D | | | Analyzed: 04/14/11 19:18 | | | |
| Phenanthrene-d10 | 124613 | 11.462 | 144842 | 11.462 | 86 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 44774 | 17.486 | 81449 | 17.486 | 55 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-MW-039 (1104084-06 )** | | | Lab File ID: 0408406.D | | | Analyzed: 04/14/11 20:41 | | | |
| Phenanthrene-d10 | 123663 | 11.462 | 144842 | 11.462 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 67671 | 17.486 | 81449 | 17.486 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 1D11503

SDG: CTOJM26_006
Project: NAS Pensacola CTO JM26 Saufley
Instrument: MS-BNA4
Calibration: 1112002

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11503-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/23/11 13:03 | | | |
| Phenanthrene-d10 | 117298 | 9.668 | 138732 | 9.706 | 85 | 50 - 200 | -0.0380 | +/-0.50 | |
| Perylene-d12 | 72766 | 14.791 | 75266 | 14.837 | 97 | 50 - 200 | -0.0460 | +/-0.50 | |
| **LCS (1D18014-BS1 )** | | | Lab File ID: D18014L1.D | | | Analyzed: 04/23/11 13:55 | | | |
| Phenanthrene-d10 | 129660 | 9.669 | 117298 | 9.668 | 111 | 50 - 200 | 0.0010 | +/-0.50 | |
| Perylene-d12 | 64990 | 14.8 | 72766 | 14.791 | 89 | 50 - 200 | 0.0090 | +/-0.50 | |
| **Blank (1D18014-BLK1 )** | | | Lab File ID: D18014B1.D | | | Analyzed: 04/23/11 14:20 | | | |
| Phenanthrene-d10 | 110645 | 9.678 | 117298 | 9.668 | 94 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 63233 | 14.8 | 72766 | 14.791 | 87 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-037-0204-D (1104084-02 )** | | | Lab File ID: 0408402.D | | | Analyzed: 04/23/11 14:45 | | | |
| Phenanthrene-d10 | 114187 | 9.668 | 117298 | 9.668 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 53186 | 14.791 | 72766 | 14.791 | 73 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-037-0204 (1104084-03 )** | | | Lab File ID: 0408403.D | | | Analyzed: 04/23/11 15:09 | | | |
| Phenanthrene-d10 | 115368 | 9.668 | 117298 | 9.668 | 98 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 50715 | 14.8 | 72766 | 14.791 | 70 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-038-0204 (1104084-04 )** | | | Lab File ID: 0408404.D | | | Analyzed: 04/23/11 15:34 | | | |
| Phenanthrene-d10 | 112760 | 9.668 | 117298 | 9.668 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 54477 | 14.8 | 72766 | 14.791 | 75 | 50 - 200 | 0.0090 | +/-0.50 | |
| **Matrix Spike (1D09816-MS1 )** | | | Lab File ID: 0408404M.D | | | Analyzed: 04/23/11 15:59 | | | |
| Phenanthrene-d10 | 104068 | 9.668 | 117298 | 9.668 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 52613 | 14.8 | 72766 | 14.791 | 72 | 50 - 200 | 0.0090 | +/-0.50 | |
| **Matrix Spike Dup (1D09816-MSD1 )** | | | Lab File ID: 0408404S.D | | | Analyzed: 04/23/11 16:24 | | | |
| Phenanthrene-d10 | 122351 | 9.668 | 117298 | 9.668 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 60122 | 14.791 | 72766 | 14.791 | 83 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-039-0204 (1104084-05 )** | | | Lab File ID: 0408405.D | | | Analyzed: 04/23/11 16:48 | | | |
| Phenanthrene-d10 | 106856 | 9.668 | 117298 | 9.668 | 91 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 47329 | 14.8 | 72766 | 14.791 | 65 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-040-0204 (1104084-07 )** | | | Lab File ID: 0408407.D | | | Analyzed: 04/23/11 17:13 | | | |
| Phenanthrene-d10 | 109770 | 9.669 | 117298 | 9.668 | 94 | 50 - 200 | 0.0010 | +/-0.50 | |
| Perylene-d12 | 49415 | 14.8 | 72766 | 14.791 | 68 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-041-0204 (1104084-08 )** | | | Lab File ID: 0408408.D | | | Analyzed: 04/23/11 17:38 | | | |
| Phenanthrene-d10 | 112322 | 9.668 | 117298 | 9.668 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 50250 | 14.8 | 72766 | 14.791 | 69 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-042-0204 (1104084-09 )** | | | Lab File ID: 0408409.D | | | Analyzed: 04/23/11 18:03 | | | |
| Phenanthrene-d10 | 115486 | 9.668 | 117298 | 9.668 | 98 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 45933 | 14.8 | 72766 | 14.791 | 63 | 50 - 200 | 0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 1D11503

SDG: CTOJM26_006
Project: NAS Pensacola CTO JM26 Saufley
Instrument: MS-BNA4
Calibration: 1112002

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-043-0204 (1104084-10 )** | | | Lab File ID: 0408410.D | | | Analyzed: 04/23/11 18:27 | | | |
| Phenanthrene-d10 | 120903 | 9.668 | 117298 | 9.668 | 103 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 51644 | 14.8 | 72766 | 14.791 | 71 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-044-0204 (1104084-11 )** | | | Lab File ID: 0408411.D | | | Analyzed: 04/23/11 18:52 | | | |
| Phenanthrene-d10 | 112813 | 9.668 | 117298 | 9.668 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 62032 | 14.791 | 72766 | 14.791 | 85 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-045-0204 (1104107-01 )** | | | Lab File ID: 0410701.D | | | Analyzed: 04/23/11 19:16 | | | |
| Phenanthrene-d10 | 118107 | 9.678 | 117298 | 9.668 | 101 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 50982 | 14.8 | 72766 | 14.791 | 70 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-045-0204-D (1104107-02 )** | | | Lab File ID: 0410702.D | | | Analyzed: 04/23/11 19:41 | | | |
| Phenanthrene-d10 | 106384 | 9.678 | 117298 | 9.668 | 91 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 39667 | 14.8 | 72766 | 14.791 | 55 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-046-0204 (1104107-03 )** | | | Lab File ID: 0410703.D | | | Analyzed: 04/23/11 20:06 | | | |
| Phenanthrene-d10 | 100912 | 9.678 | 117298 | 9.668 | 86 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 37476 | 14.8 | 72766 | 14.791 | 52 | 50 - 200 | 0.0090 | +/-0.50 | |
| **Matrix Spike (1D18014-MS1 )** | | | Lab File ID: 0410703M.D | | | Analyzed: 04/23/11 20:30 | | | |
| Phenanthrene-d10 | 117916 | 9.669 | 117298 | 9.668 | 101 | 50 - 200 | 0.0010 | +/-0.50 | |
| Perylene-d12 | 60386 | 14.8 | 72766 | 14.791 | 83 | 50 - 200 | 0.0090 | +/-0.50 | |
| **Matrix Spike Dup (1D18014-MSD1 )** | | | Lab File ID: 0410703S.D | | | Analyzed: 04/23/11 20:55 | | | |
| Phenanthrene-d10 | 112550 | 9.668 | 117298 | 9.668 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 64279 | 14.8 | 72766 | 14.791 | 88 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-047-0204 (1104107-04 )** | | | Lab File ID: 0410704.D | | | Analyzed: 04/23/11 21:20 | | | |
| Phenanthrene-d10 | 109372 | 9.678 | 117298 | 9.668 | 93 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 41473 | 14.8 | 72766 | 14.791 | 57 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-048-0204 (1104107-05 )** | | | Lab File ID: 0410705.D | | | Analyzed: 04/23/11 21:44 | | | |
| Phenanthrene-d10 | 106220 | 9.678 | 117298 | 9.668 | 91 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 47012 | 14.8 | 72766 | 14.791 | 65 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-049-0204 (1104107-06 )** | | | Lab File ID: 0410706.D | | | Analyzed: 04/23/11 22:09 | | | |
| Phenanthrene-d10 | 101246 | 9.678 | 117298 | 9.668 | 86 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 49560 | 14.8 | 72766 | 14.791 | 68 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-050-0204 (1104107-07 )** | | | Lab File ID: 0410707.D | | | Analyzed: 04/23/11 22:34 | | | |
| Phenanthrene-d10 | 110833 | 9.678 | 117298 | 9.668 | 94 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 63540 | 14.8 | 72766 | 14.791 | 87 | 50 - 200 | 0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11709 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11709-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/26/11 09:58 | | | |
| Phenanthrene-d10 | 143711 | 9.68 | 138732 | 9.706 | 104 | 50 - 200 | -0.0260 | +/-0.50 | |
| Perylene-d12 | 82970 | 14.802 | 75266 | 14.837 | 110 | 50 - 200 | -0.0350 | +/-0.50 | |
| **LCS (1D09816-BS2 )** | | | Lab File ID: D9816L1R.D | | | Analyzed: 04/26/11 18:29 | | | |
| Phenanthrene-d10 | 128452 | 9.68 | 143711 | 9.68 | 89 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 78633 | 14.812 | 82970 | 14.802 | 95 | 50 - 200 | 0.0100 | +/-0.50 | |
| **Blank (1D09816-BLK2 )** | | | Lab File ID: D9816B1R.D | | | Analyzed: 04/26/11 18:54 | | | |
| Phenanthrene-d10 | 133337 | 9.68 | 143711 | 9.68 | 93 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 55507 | 14.812 | 82970 | 14.802 | 67 | 50 - 200 | 0.0100 | +/-0.50 | |

# Data for SW8011 Forms

# HOLDING TIME SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-MW-039 | 04/06/11 10:45 | 04/07/11 08:45 | 04/11/11 13:00 | N/A | 14.00 | 04/13/11 13:32 | 7.16 | 14.00 | |
| EQUIP BLANK 04 | 04/08/11 10:40 | 04/09/11 08:30 | 04/18/11 09:50 | N/A | 14.00 | 04/19/11 17:35 | 11.33 | 14.00 | |
| EQUIP BLANK 05 | 04/08/11 12:05 | 04/09/11 08:30 | 04/18/11 09:50 | N/A | 14.00 | 04/19/11 17:56 | 11.29 | 14.00 | |
| 05-MW-049 | 04/08/11 16:38 | 04/09/11 08:30 | 04/18/11 09:50 | N/A | 14.00 | 04/19/11 18:17 | 11.11 | 14.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |
| Cal Standard | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| Initial Cal Check | 0L34409-ICV1 | 010R0101.D | 12/09/10 17:04 |
| Initial Cal Check | 0L34409-ICV1 | 010F0101.D | 12/09/10 17:04 |

# INITIAL CALIBRATION STANDARDS

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| 10L0344 | EDB ICAL 1 (0.03ppb) | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| 10L0345 | EDB ICAL 2 (0.05ppb) | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| 10L0346 | EDB ICAL 3 (0.10ppb) | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| 10L0347 | EDB ICAL 4 (0.15ppb) | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| 10L0348 | EDB ICAL 5 (0.20ppb) | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| 10L0349 | EDB ICAL 6 (0.40ppb) | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| 10L0350 | EDB ICAL 7 (0.50ppb) | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| 10L0351 | EDB ICAL 8 (1.00ppb) | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 17489.79 | 18.96825 | 1.543 | 1.749237E-02 | | 0.9996372 | CCC () | * |
| 1,2-Dibromoethane [2C] | 37183.36 | 15.05167 | 0.583 | 2.248094E-02 | | 0.9995717 | CCC () | * |
| 1,2-Dibromo-3-chloropropane | 35650.07 | 32.01128 | 6.973 | 2.748517E-02 | | 0.9987968 | CCC () | * |
| 1,2-Dibromo-3-chloropropane [2C] | 100449.9 | 35.64558 | 4.139286 | 5.910871E-02 | | 0.9986728 | CCC () | * |

# INITIAL CALIBRATION DATA

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,2-Dibromoethane | 1 | 14540 | 0.5 | 15516 | 0.4 | 15402.5 | 0.2 | 16590 | 0.15 | 15980 | 0.1 | ~~17600~~ |
| 1,2-Dibromoethane [2C] | 1 | 29076 | 0.5 | 33560 | 0.4 | 33402.5 | 0.2 | 38785 | 0.15 | 37866.67 | 0.1 | ~~43050~~ |
| 1,2-Dibromo-3-chloropropane | 1 | 24442 | 0.5 | 28986 | 0.4 | 28852.5 | 0.2 | 31650 | 0.15 | 31693.33 | 0.1 | ~~45080~~ |
| 1,2-Dibromo-3-chloropropane [2C] | 1 | 69695 | 0.5 | 78930 | 0.4 | 76647.5 | 0.2 | 85730 | 0.15 | 88033.34 | 0.1 | ~~105450~~ |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10 14:14 12/9/10 16:42 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,2-Dibromoethane | 0.05 | 23100 | 0.03 | 21300 | | | | | | | | |
| 1,2-Dibromoethane [2C] | 0.05 | 45260 | 0.03 | 42333.33 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 0.05 | 52760 | 0.03 | 51166.67 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane [2C] | 0.05 | 155180 | 0.03 | 148933.3 | | | | | | | | |

# INITIAL CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 010F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 0L34409 | Injection Date: | 12/09/10 |
| Lab Sample ID: | 0L34409-ICV1 | Injection Time: | 17:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4746 | 17489.79 | 14620 | | -5.1 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4584 | 37183.36 | 30824 | | -8.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10420 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10420-CCV1 | 001R0201.D | 04/13/11 08:55 |
| LCS | 1D09902-BS1 | 003R0201.D | 04/13/11 09:37 |
| Blank | 1D09902-BLK1 | 004R0201.D | 04/13/11 09:59 |
| 05-MW-039 | 1104084-06 | 014R0201.D | 04/13/11 13:32 |
| Calibration Check | 1D10420-CCV2 | 016R0201.D | 04/13/11 14:15 |
| Calibration Check | 1D10420-CCV3 | 018R0201.D | 04/13/11 14:57 |

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 001R0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D10420 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10420-CCV1 | Injection Time: | 08:55 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5960 | 37183.36 | 38386 | | 19.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 016R0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D10420 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10420-CCV2 | Injection Time: | 14:15 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4856 | 37183.36 | 32358 | | -2.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 018R0201.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D10420 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10420-CCV3 | Injection Time: | 14:57 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.5190 | 37183.36 | 34218 | | 3.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11037 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D11037-CCV1 | 001R0101.D | 04/19/11 14:06 |
| Calibration Check | 1D11037-CCV1 | 001F0101.D | 04/19/11 14:06 |
| Blank | 1D18006-BLK1 | 003R0101.D | 04/19/11 14:43 |
| LCS | 1D18006-BS1 | 004R0101.D | 04/19/11 15:05 |
| LCS | 1D18006-BS1 | 004F0101.D | 04/19/11 15:05 |
| LCS Dup | 1D18006-BSD1 | 005R0101.D | 04/19/11 15:26 |
| LCS Dup | 1D18006-BSD1 | 005F0101.D | 04/19/11 15:26 |
| Calibration Check | 1D11037-CCV2 | 009R0101.D | 04/19/11 16:52 |
| Calibration Check | 1D11037-CCV2 | 009F0101.D | 04/19/11 16:52 |
| EQUIP BLANK 04 | 1104107-08 | 011R0101.D | 04/19/11 17:35 |
| EQUIP BLANK 05 | 1104107-09 | 012R0101.D | 04/19/11 17:56 |
| 05-MW-049 | 1104107-10 | 013R0101.D | 04/19/11 18:17 |
| Calibration Check | 1D11037-CCV3 | 019R0101.D | 04/19/11 20:25 |
| Calibration Check | 1D11037-CCV3 | 019F0101.D | 04/19/11 20:25 |

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 001F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D11037 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11037-CCV1 | Injection Time: | 14:06 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5429 | 17489.79 | 16568 | | 8.6 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.7292 | 37183.36 | 45266 | | 45.8 | 20 * |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 009F0101.D | Calibration Date: | ~~12/09/10~~ 14:14 |
| Sequence: | 1D11037 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11037-CCV2 | Injection Time: | 16:52 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5300 | 17489.79 | 16202 | | 6.0 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.6981 | 37183.36 | 43694 | | 39.6 | 20 * |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 019F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D11037 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11037-CCV3 | Injection Time: | 20:25 |

| COMPOUND | TYPE | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4860 | 17489.79 | 14948 | | -2.8 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.6817 | 37183.36 | 42856 | | 36.3 | 20 * |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D09902 Batch Matrix: Water Preparation: EDB

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-039 | 1104084-06 | 04/11/11 13:00 | 35.00 | 35.00 |
| Blank | 1D09902-BLK1 | 04/11/11 13:00 | 35.00 | 35.00 |
| LCS | 1D09902-BS1 | 04/11/11 13:00 | 35.00 | 35.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D09902-BLK1 | File ID: | 004R0201.D |
| Sampled: | | Prepared: | 04/11/11 13:00 | Analyzed: | 04/13/11 09:59 |
| Solids: | | Preparation: | EDB | Dilution: | |

Batch: 1D09902 Sequence: 1D10420 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# LCS / LCS DUPLICATE RECOVERY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D09902 | Laboratory ID: | 1D09902-BS1 |
| Preparation: | EDB | Initial/Final: | 35 mL / 35 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| 1,2-Dibromoethane [2C] | 0.5000 | 0.4447 | 88.9 | 70 - 130 |

# PREPARATION BATCH SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D18006 Batch Matrix: Water Preparation: EDB

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 04 | 1104107-08 | 04/18/11 09:50 | 37.23 | 35.00 |
| EQUIP BLANK 05 | 1104107-09 | 04/18/11 09:50 | 37.45 | 35.00 |
| 05-MW-049 | 1104107-10 | 04/18/11 09:50 | 37.06 | 35.00 |
| Blank | 1D18006-BLK1 | 04/18/11 09:50 | 35.00 | 35.00 |
| LCS | 1D18006-BS1 | 04/18/11 09:50 | 35.00 | 35.00 |
| LCS Dup | 1D18006-BSD1 | 04/18/11 09:50 | 35.00 | 35.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D18006-BLK1 | File ID: | 003R0101.D |
| Sampled: | | Prepared: | 04/18/11 09:50 | Analyzed: | 04/19/11 14:43 |
| Solids: | | Preparation: | EDB | Dilution: | |

Batch: 1D18006 Sequence: 1D11037 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# LCS / LCS DUPLICATE RECOVERY

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D18006 | Laboratory ID: | 1D18006-BS1 |
| Preparation: | EDB | Initial/Final: | 35 mL / 35 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.5000 | 0.4080 | 81.6 | 70 - 130 |
| 1,2-Dibromoethane [2C] | 0.5000 | 0.5698 | 114 | 70 - 130 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 0.5000 | 0.4072 | 81.4 | 0.186 | 20 | 70 - 130 |
| 1,2-Dibromoethane [2C] | 0.5000 | 0.5595 | 112 | 1.82 | 20 | 70 - 130 |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_006

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** GL-ECD2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0100 | 0.0300 | ug/L | SW8011 |
| 1,2-Dibromoethane [2C] | 0.0100 | 0.0300 | ug/L | SW8011 |

# Data for FLPRO Forms

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-037-0204-D | 04/06/11 08:25 | 04/07/11 08:45 | 04/18/11 08:20 | 12.04 | 14.00 | 04/19/11 20:32 | 1.51 | 40.00 | |
| 05-SS-037-0204 | 04/06/11 08:25 | 04/07/11 08:45 | 04/18/11 08:20 | 12.04 | 14.00 | 04/19/11 21:15 | 1.54 | 40.00 | |
| 05-SS-038-0204 | 04/06/11 09:05 | 04/07/11 08:45 | 04/18/11 08:20 | 12.01 | 14.00 | 04/19/11 21:57 | 1.57 | 40.00 | |
| 05-SS-039-0204 | 04/06/11 09:55 | 04/07/11 08:45 | 04/18/11 08:20 | 11.98 | 14.00 | 04/20/11 00:04 | 1.66 | 40.00 | |
| 05-MW-039 | 04/06/11 10:45 | 04/07/11 08:45 | 04/11/11 13:56 | 5.17 | 7.00 | 04/14/11 05:37 | 2.65 | 40.00 | |
| 05-SS-040-0204 | 04/06/11 13:15 | 04/07/11 08:45 | 04/18/11 08:20 | 11.84 | 14.00 | 04/20/11 00:47 | 1.69 | 40.00 | |
| 05-SS-041-0204 | 04/06/11 13:45 | 04/07/11 08:45 | 04/18/11 08:20 | 11.82 | 14.00 | 04/20/11 01:29 | 1.71 | 40.00 | |
| 05-SS-042-0204 | 04/06/11 14:15 | 04/07/11 08:45 | 04/18/11 08:20 | 11.80 | 14.00 | 04/20/11 02:12 | 1.74 | 40.00 | |
| 05-SS-043-0204 | 04/06/11 15:20 | 04/07/11 08:45 | 04/18/11 08:20 | 11.75 | 14.00 | 04/20/11 02:54 | 1.77 | 40.00 | |
| 05-SS-044-0204 | 04/06/11 16:00 | 04/07/11 08:45 | 04/18/11 08:20 | 11.72 | 14.00 | 04/20/11 03:36 | 1.80 | 40.00 | |
| 05-SS-045-0204 | 04/08/11 11:40 | 04/09/11 08:30 | 04/13/11 13:18 | 5.11 | 14.00 | 04/15/11 07:39 | 1.76 | 40.00 | |
| 05-SS-045-0204-D | 04/08/11 11:40 | 04/09/11 08:30 | 04/13/11 13:18 | 5.11 | 14.00 | 04/15/11 08:21 | 1.79 | 40.00 | |
| 05-SS-046-0204 | 04/08/11 12:20 | 04/09/11 08:30 | 04/13/11 13:18 | 5.08 | 14.00 | 04/15/11 09:03 | 1.82 | 40.00 | |
| 05-SS-047-0204 | 04/08/11 13:05 | 04/09/11 08:30 | 04/13/11 13:18 | 5.05 | 14.00 | 04/15/11 11:10 | 1.91 | 40.00 | |
| 05-SS-048-0204 | 04/08/11 13:50 | 04/09/11 08:30 | 04/13/11 13:18 | 5.02 | 14.00 | 04/15/11 11:52 | 1.94 | 40.00 | |
| 05-SS-049-0204 | 04/08/11 15:55 | 04/09/11 08:30 | 04/13/11 13:18 | 4.93 | 14.00 | 04/15/11 12:34 | 1.97 | 40.00 | |
| 05-SS-050-0204 | 04/08/11 16:50 | 04/09/11 08:30 | 04/13/11 13:18 | 4.89 | 14.00 | 04/15/11 13:17 | 2.00 | 40.00 | |
| EQUIP BLANK 04 | 04/08/11 10:40 | 04/09/11 08:30 | 04/13/11 11:40 | 5.08 | 7.00 | 04/13/11 23:17 | 0.48 | 40.00 | |
| EQUIP BLANK 05 | 04/08/11 12:05 | 04/09/11 08:30 | 04/13/11 11:40 | 5.02 | 7.00 | 04/13/11 23:59 | 0.51 | 40.00 | |
| 05-MW-049 | 04/08/11 16:38 | 04/09/11 08:30 | 04/13/11 11:40 | 4.83 | 7.00 | 04/14/11 00:42 | 0.54 | 40.00 | |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_006

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid **Instrument:** GL-GCFID2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |
| | 0.170 | 0.680 | mg/L | FLPRO |
| | 0.170 | 0.510 | mg/Kg | FLPRO |

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| Cal Standard | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| Cal Standard | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| Cal Standard | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| Cal Standard | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| Cal Standard | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |
| Initial Cal Check | 1D10403-ICV1 | 009F0701.D | 04/13/11 19:46 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| 11B0727 | FLPRO CAL5 850ppm | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| 11B0726 | FLPRO CAL4 2550ppm | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| 11B0725 | FLPRO CAL3 4250ppm | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| 11B0724 | FLPRO CAL2 5950ppm | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| 11B0723 | FLPRO CAL1 8500ppm | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1104001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 4/13/11 15:31 4/13/11 19:04 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1688.919 | 5.182621 | 2.923 | 2.565533E-02 | | | 20 | |
| 2-Fluorobiphenyl | 2920.489 | 12.42221 | 10.68433 | 0.709301 | | | 20 | |
| o-Terphenyl | 3802.792 | 5.518154 | 16.28583 | 7.880568E-02 | | | 20 | |
| Petroleum Range Organics | 1688.919 | 5.182621 | 2.923 | 2.565533E-02 | | | 20 | |
| 2-Fluorobiphenyl | 2920.489 | 12.42221 | 10.68433 | 0.709301 | | | 20 | |
| o-Terphenyl | 3802.792 | 5.518154 | 16.28583 | 7.880568E-02 | | | 20 | |

# INITIAL CALIBRATION DATA

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1104001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 4/13/11 15:31 4/13/11 19:04 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF |
| Petroleum Range Organics | 85 | 1579.718 | 850 | 1838.869 | 2550 | 1705.804 | 4250 | 1710.376 | 5950 | 1645.856 | 8500 | 1652.894 |
| 2-Fluorobiphenyl | 5 | 2272.8 | 10 | 3009.6 | 15 | 3284.4 | 25 | 3118.36 | 35 | 3090.714 | 50 | 2747.06 |
| o-Terphenyl | 5 | 3426.8 | 10 | 3721.9 | 15 | 3804.2 | 25 | 3999.32 | 35 | 3939.572 | 50 | 3924.96 |
| Petroleum Range Organics | 85 | 1579.718 | 850 | 1838.869 | 2550 | 1705.804 | 4250 | 1710.376 | 5950 | 1645.856 | 8500 | 1652.894 |
| 2-Fluorobiphenyl | 5 | 2272.8 | 10 | 3009.6 | 15 | 3284.4 | 25 | 3118.36 | 35 | 3090.714 | 50 | 2747.06 |
| o-Terphenyl | 5 | 3426.8 | 10 | 3721.9 | 15 | 3804.2 | 25 | 3999.32 | 35 | 3939.572 | 50 | 3924.96 |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 009F0701.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10403 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10403-ICV1 | Injection Time: | 19:46 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4522 | 1688.919 | 1909.501 | | 13.1 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10404 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10404-CCV1 | 010F0801.D | 04/13/11 20:28 |
| Blank | 1D13010-BLK1 | 011F0901.D | 04/13/11 21:11 |
| LCS | 1D13010-BS1 | 012F1001.D | 04/13/11 21:53 |
| LCS Dup | 1D13010-BSD1 | 013F1101.D | 04/13/11 22:35 |
| EQUIP BLANK 04 | 1104107-08 | 014F1201.D | 04/13/11 23:17 |
| EQUIP BLANK 05 | 1104107-09 | 015F1301.D | 04/13/11 23:59 |
| 05-MW-049 | 1104107-10 | 016F1401.D | 04/14/11 00:42 |
| Blank | 1D11006-BLK1 | 019F1701.D | 04/14/11 02:48 |
| LCS | 1D11006-BS1 | 020F1801.D | 04/14/11 03:30 |
| LCS Dup | 1D11006-BSD1 | 021F1901.D | 04/14/11 04:13 |
| 05-MW-039 | 1104084-06 | 023F2101.D | 04/14/11 05:37 |
| Calibration Check | 1D10404-CCV2 | 024F2201.D | 04/14/11 06:19 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 010F0801.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10404 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10404-CCV1 | Injection Time: | 20:28 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4593 | 1688.919 | 1825.266 | | 8.1 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 24.61 | 2920.489 | 2875.08 | | -1.6 | 25 |
| o-Terphenyl | A | 25.00 | 20.71 | 3802.792 | 3150.2 | | -17.2 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 024F2201.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10404 | Injection Date: | 04/14/11 |
| Lab Sample ID: | 1D10404-CCV2 | Injection Time: | 06:19 |

| COMPOUND | TYPE | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4584 | 1688.919 | 1821.778 | | 7.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 24.72 | 2920.489 | 2887.64 | | -1.1 | 25 |
| o-Terphenyl | A | 25.00 | 20.99 | 3802.792 | 3192.68 | | -16.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10517 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10517-CCV1 | 028F2801.D | 04/15/11 04:50 |
| Blank | 1D13012-BLK1 | 029F2901.D | 04/15/11 05:32 |
| LCS | 1D13012-BS1 | 030F3001.D | 04/15/11 06:14 |
| 05-SS-045-0204 | 1104107-01 | 032F3201.D | 04/15/11 07:39 |
| 05-SS-045-0204-D | 1104107-02 | 033F3301.D | 04/15/11 08:21 |
| 05-SS-046-0204 | 1104107-03 | 034F3401.D | 04/15/11 09:03 |
| 05-SS-046-0204 | 1D13012-MS1 | 035F3501.D | 04/15/11 09:45 |
| 05-SS-046-0204 | 1D13012-MSD1 | 036F3601.D | 04/15/11 10:28 |
| 05-SS-047-0204 | 1104107-04 | 037F3701.D | 04/15/11 11:10 |
| 05-SS-048-0204 | 1104107-05 | 038F3801.D | 04/15/11 11:52 |
| 05-SS-049-0204 | 1104107-06 | 039F3901.D | 04/15/11 12:34 |
| 05-SS-050-0204 | 1104107-07 | 040F4001.D | 04/15/11 13:17 |
| Calibration Check | 1D10517-CCV2 | 041F4101.D | 04/15/11 13:59 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 028F2801.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10517 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10517-CCV1 | Injection Time: | 04:50 |

| COMPOUND | TYPE | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4048 | 1688.919 | 1608.683 | | -4.8 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.43 | 2920.489 | 2737.08 | | -6.3 | 25 |
| o-Terphenyl | A | 25.00 | 23.74 | 3802.792 | 3611.04 | | -5.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 041F4101.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10517 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10517-CCV2 | Injection Time: | 13:59 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4070 | 1688.919 | 1617.418 | | -4.2 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 22.57 | 2920.489 | 2636.72 | | -9.7 | 25 |
| o-Terphenyl | A | 25.00 | 23.90 | 3802.792 | 3636.08 | | -4.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11108 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D11108-CCV1 | 002F0201.D | 04/19/11 09:11 |
| Blank | 1D09815-BLK1 | 004F0401.D | 04/19/11 10:36 |
| LCS | 1D09815-BS1 | 005F0501.D | 04/19/11 11:19 |
| Calibration Check | 1D11108-CCV2 | 017F1701.D | 04/19/11 19:50 |
| 05-SS-037-0204-D | 1104084-02 | 018F1801.D | 04/19/11 20:32 |
| 05-SS-037-0204 | 1104084-03 | 019F1901.D | 04/19/11 21:15 |
| 05-SS-038-0204 | 1104084-04 | 020F2001.D | 04/19/11 21:57 |
| 05-SS-038-0204 | 1D09815-MS1 | 021F2101.D | 04/19/11 22:40 |
| 05-SS-038-0204 | 1D09815-MSD1 | 022F2201.D | 04/19/11 23:22 |
| 05-SS-039-0204 | 1104084-05 | 023F2301.D | 04/20/11 00:04 |
| 05-SS-040-0204 | 1104084-07 | 024F2401.D | 04/20/11 00:47 |
| 05-SS-041-0204 | 1104084-08 | 025F2501.D | 04/20/11 01:29 |
| 05-SS-042-0204 | 1104084-09 | 026F2601.D | 04/20/11 02:12 |
| 05-SS-043-0204 | 1104084-10 | 027F2701.D | 04/20/11 02:54 |
| 05-SS-044-0204 | 1104084-11 | 028F2801.D | 04/20/11 03:36 |
| Calibration Check | 1D11108-CCV3 | 030F3001.D | 04/20/11 05:01 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11108-CCV1 | Injection Time: | 09:11 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3785 | 1688.919 | 1504.083 | | -10.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 22.21 | 2920.489 | 2594.64 | | -11.2 | 25 |
| o-Terphenyl | A | 25.00 | 22.09 | 3802.792 | 3360.36 | | -11.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 017F1701.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11108-CCV2 | Injection Time: | 19:50 |

| COMPOUND | TYPE | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4013 | 1688.919 | 1594.634 | | -5.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.26 | 2920.489 | 2717.92 | | -6.9 | 25 |
| o-Terphenyl | A | 25.00 | 24.34 | 3802.792 | 3703.12 | | -2.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 030F3001.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/20/11 |
| Lab Sample ID: | 1D11108-CCV3 | Injection Time: | 05:01 |

| COMPOUND | TYPE | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4166 | 1688.919 | 1655.591 | | -2.0 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.35 | 2920.489 | 2728.28 | | -6.6 | 25 |
| o-Terphenyl | A | 25.00 | 23.59 | 3802.792 | 3588.28 | | -5.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D09815 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-037-0204-D | 1104084-02 | 04/18/11 08:20 | 15.30 | 2.00 |
| 05-SS-037-0204 | 1104084-03 | 04/18/11 08:20 | 15.40 | 2.00 |
| 05-SS-038-0204 | 1104084-04 | 04/18/11 08:20 | 15.20 | 2.00 |
| 05-SS-039-0204 | 1104084-05 | 04/18/11 08:20 | 15.30 | 2.00 |
| 05-SS-040-0204 | 1104084-07 | 04/18/11 08:20 | 15.20 | 2.00 |
| 05-SS-041-0204 | 1104084-08 | 04/18/11 08:20 | 15.40 | 2.00 |
| 05-SS-042-0204 | 1104084-09 | 04/18/11 08:20 | 15.60 | 2.00 |
| 05-SS-043-0204 | 1104084-10 | 04/18/11 08:20 | 15.10 | 2.00 |
| 05-SS-044-0204 | 1104084-11 | 04/18/11 08:20 | 15.50 | 2.00 |
| Blank | 1D09815-BLK1 | 04/18/11 08:20 | 15.00 | 2.00 |
| LCS | 1D09815-BS1 | 04/18/11 08:20 | 15.00 | 2.00 |
| 05-SS-038-0204 | 1D09815-MS1 | 04/18/11 08:20 | 15.50 | 2.00 |
| 05-SS-038-0204 | 1D09815-MSD1 | 04/18/11 08:20 | 15.40 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D09815-BLK1 | File ID: | 004F0401.D |
| Sampled: | | Prepared: | | Analyzed: | 04/19/11 10:36 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |
| Batch: | 1D09815 | Sequence: | 1D11108 | Calibration: | 1104001 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.566 | 77.0 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.136 | 64.1 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D09815 | Laboratory ID: | 1D09815-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 186.2 | 87.3 | 50 - 140 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D11006 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-039 | 1104084-06 | 04/11/11 13:56 | 1,040.00 | 2.00 |
| Blank | 1D11006-BLK1 | 04/11/11 13:56 | 1,000.00 | 2.00 |
| LCS | 1D11006-BS1 | 04/11/11 13:56 | 1,000.00 | 2.00 |
| LCS Dup | 1D11006-BSD1 | 04/11/11 13:56 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D11006-BLK1 | File ID: | 019F1701.D |
| Sampled: | | Prepared: | | Analyzed: | 04/14/11 02:48 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1D11006 Sequence: 1D10404 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.03700 | 74.0 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.03468 | 69.4 | 82 - 142 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D11006 | Laboratory ID: | 1D11006-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 2 mL |

| ANALYTE | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 3.082 | 96.3 | 55 - 118 |

| ANALYTE | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 2.881 | 90.0 | 6.76 | 30 | 55 - 118 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D13010 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK 04 | 1104107-08 | 04/13/11 11:40 | 1,040.00 | 2.00 |
| EQUIP BLANK 05 | 1104107-09 | 04/13/11 11:40 | 1,000.00 | 2.00 |
| 05-MW-049 | 1104107-10 | 04/13/11 11:40 | 1,000.00 | 2.00 |
| Blank | 1D13010-BLK1 | 04/13/11 11:40 | 1,000.00 | 2.00 |
| LCS | 1D13010-BS1 | 04/13/11 11:40 | 1,000.00 | 2.00 |
| LCS Dup | 1D13010-BSD1 | 04/13/11 11:40 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_006 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D13010-BLK1 | File ID: | 011F0901.D |
| Sampled: | | Prepared: | | Analyzed: | 04/13/11 21:11 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1D13010 Sequence: 1D10404 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 0.758 | 0.170 | 0.340 | 0.680 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.07839 | 157 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.07512 | 150 | 82 - 142 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D13010 | Laboratory ID: | 1D13010-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 2 mL |

| ANALYTE | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 2.864 | 89.5 | 55 - 118 |

| ANALYTE | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 2.711 | 84.7 | 5.46 | 30 | 55 - 118 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D13012 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-045-0204 | 1104107-01 | 04/13/11 13:18 | 15.80 | 2.00 |
| 05-SS-045-0204-D | 1104107-02 | 04/13/11 13:18 | 15.70 | 2.00 |
| 05-SS-046-0204 | 1104107-03 | 04/13/11 13:18 | 15.60 | 2.00 |
| 05-SS-047-0204 | 1104107-04 | 04/13/11 13:18 | 15.60 | 2.00 |
| 05-SS-048-0204 | 1104107-05 | 04/13/11 13:18 | 15.50 | 2.00 |
| 05-SS-049-0204 | 1104107-06 | 04/13/11 13:18 | 15.40 | 2.00 |
| 05-SS-050-0204 | 1104107-07 | 04/13/11 13:18 | 15.60 | 2.00 |
| Blank | 1D13012-BLK1 | 04/13/11 13:18 | 15.00 | 2.00 |
| LCS | 1D13012-BS1 | 04/13/11 13:18 | 15.00 | 2.00 |
| 05-SS-046-0204 | 1D13012-MS1 | 04/13/11 13:18 | 15.30 | 2.00 |
| 05-SS-046-0204 | 1D13012-MSD1 | 04/13/11 13:18 | 15.70 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |

| | | | | | |
|---|---|---|---|---|---|
| Matrix: | | Laboratory ID: | 1D13012-BLK1 | File ID: | 029F2901.D |
| Sampled: | | Prepared: | | Analyzed: | 04/15/11 05:32 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Batch: | 1D13012 | Sequence: | 1D10517 | Calibration: | 1104001 | Instrument: | GL-GCFID2 |

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.648 | 79.5 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.441 | 73.2 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D13012 | Laboratory ID: | 1D13012-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 202.5 | 94.9 | 50 - 140 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## FLPRO

**05-SS-038-0204**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D09815

% Solids: 91.60

Source Sample Name: **1104084-04**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 225.4 | ND | 213.8 | 94.9 | | 50 - 140 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 226.8 | 198.6 | 87.6 | 7.36 | | 40 | 50 - 140 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## FLPRO

**05-SS-046-0204**

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Matrix: Solid

Batch: 1D13012

% Solids: 91.81

Source Sample Name: **1104107-03**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 227.8 | ND | 216.6 | 95.1 | | 50 - 140 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 222.0 | 200.1 | 90.1 | 7.90 | | 40 | 50 - 140 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10404 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10404-CCV1 ) mg/L** | | | | Lab File ID: 010F0801.D | | Analyzed: 04/13/11 20:28 | | |
| 2-Fluorobiphenyl | 25.00 | 98.4 | 75 - 125 | 10.66 | 10.66 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 82.8 | 75 - 125 | 16.276 | 16.276 | 0.0000 | +/-0.050 | |
| **Blank (1D13010-BLK1 ) mg/L** | | | | Lab File ID: 011F0901.D | | Analyzed: 04/13/11 21:11 | | |
| 2-Fluorobiphenyl | 0.05000 | 157 | 50 - 150 | 10.626 | 10.66 | -0.0340 | +/-0.050 | * |
| o-Terphenyl | 0.05000 | 150 | 82 - 142 | 16.276 | 16.276 | 0.0000 | +/-0.050 | * |
| **LCS (1D13010-BS1 ) mg/L** | | | | Lab File ID: 012F1001.D | | Analyzed: 04/13/11 21:53 | | |
| 2-Fluorobiphenyl | 0.05000 | 175 | 50 - 150 | 10.623 | 10.66 | -0.0370 | +/-0.050 | * |
| o-Terphenyl | 0.05000 | 155 | 82 - 142 | 16.28 | 16.276 | 0.0040 | +/-0.050 | * |
| **LCS Dup (1D13010-BSD1 ) mg/L** | | | | Lab File ID: 013F1101.D | | Analyzed: 04/13/11 22:35 | | |
| 2-Fluorobiphenyl | 0.05000 | 160 | 50 - 150 | 10.63 | 10.66 | -0.0300 | +/-0.050 | * |
| o-Terphenyl | 0.05000 | 142 | 82 - 142 | 16.28 | 16.276 | 0.0040 | +/-0.050 | |
| **EQUIP BLANK 04 (1104107-08 ) mg/L** | | | | Lab File ID: 014F1201.D | | Analyzed: 04/13/11 23:17 | | |
| 2-Fluorobiphenyl | 0.04808 | 165 | 50 - 150 | 10.623 | 10.66 | -0.0370 | +/-0.050 | * |
| o-Terphenyl | 0.04808 | 151 | 82 - 142 | 16.276 | 16.276 | 0.0000 | +/-0.050 | * |
| **EQUIP BLANK 05 (1104107-09 ) mg/L** | | | | Lab File ID: 015F1301.D | | Analyzed: 04/13/11 23:59 | | |
| 2-Fluorobiphenyl | 0.05000 | 156 | 50 - 150 | 10.623 | 10.66 | -0.0370 | +/-0.050 | * |
| o-Terphenyl | 0.05000 | 146 | 82 - 142 | 16.276 | 16.276 | 0.0000 | +/-0.050 | * |
| **05-MW-049 (1104107-10 ) mg/L** | | | | Lab File ID: 016F1401.D | | Analyzed: 04/14/11 00:42 | | |
| 2-Fluorobiphenyl | 0.05000 | 148 | 50 - 150 | 10.63 | 10.66 | -0.0300 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 132 | 82 - 142 | 16.276 | 16.276 | 0.0000 | +/-0.050 | |
| **Blank (1D11006-BLK1 ) mg/L** | | | | Lab File ID: 019F1701.D | | Analyzed: 04/14/11 02:48 | | |
| 2-Fluorobiphenyl | 0.05000 | 74.0 | 50 - 150 | 10.666 | 10.66 | 0.0060 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 69.4 | 82 - 142 | 16.276 | 16.276 | 0.0000 | +/-0.050 | * |
| **LCS (1D11006-BS1 ) mg/L** | | | | Lab File ID: 020F1801.D | | Analyzed: 04/14/11 03:30 | | |
| 2-Fluorobiphenyl | 0.05000 | 81.7 | 50 - 150 | 10.673 | 10.66 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 74.0 | 82 - 142 | 16.276 | 16.276 | 0.0000 | +/-0.050 | * |
| **LCS Dup (1D11006-BSD1 ) mg/L** | | | | Lab File ID: 021F1901.D | | Analyzed: 04/14/11 04:13 | | |
| 2-Fluorobiphenyl | 0.05000 | 78.3 | 50 - 150 | 10.673 | 10.66 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 69.7 | 82 - 142 | 16.276 | 16.276 | 0.0000 | +/-0.050 | * |
| **05-MW-039 (1104084-06 ) mg/L** | | | | Lab File ID: 023F2101.D | | Analyzed: 04/14/11 05:37 | | |
| 2-Fluorobiphenyl | 0.04808 | 55.4 | 50 - 150 | 10.693 | 10.66 | 0.0330 | +/-0.050 | |
| o-Terphenyl | 0.04808 | 49.9 | 82 - 142 | 16.28 | 16.276 | 0.0040 | +/-0.050 | * |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10404 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10404-CCV2 ) mg/L** | | | | Lab File ID: 024F2201.D | | Analyzed: 04/14/11 06:19 | | |
| 2-Fluorobiphenyl | 25.00 | 98.9 | 75 - 125 | 10.66 | 10.66 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 84.0 | 75 - 125 | 16.276 | 16.276 | 0.0000 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10517 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10517-CCV1 ) mg/L** | | | | Lab File ID: 028F2801.D | | Analyzed: 04/15/11 04:50 | | |
| 2-Fluorobiphenyl | 25.00 | 93.7 | 75 - 125 | 10.64 | 10.64 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 95.0 | 75 - 125 | 16.263 | 16.263 | 0.0000 | +/-0.050 | |
| **Blank (1D13012-BLK1 ) mg/Kg wet** | | | | Lab File ID: 029F2901.D | | Analyzed: 04/15/11 05:32 | | |
| 2-Fluorobiphenyl | 3.333 | 79.5 | 50 - 150 | 10.653 | 10.64 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 3.333 | 73.2 | 35 - 140 | 16.273 | 16.263 | 0.0100 | +/-0.050 | |
| **LCS (1D13012-BS1 ) mg/Kg wet** | | | | Lab File ID: 030F3001.D | | Analyzed: 04/15/11 06:14 | | |
| 2-Fluorobiphenyl | 3.333 | 84.2 | 50 - 150 | 10.65 | 10.64 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.333 | 72.6 | 35 - 140 | 16.263 | 16.263 | 0.0000 | +/-0.050 | |
| **05-SS-045-0204 (1104107-01 ) mg/Kg dry** | | | | Lab File ID: 032F3201.D | | Analyzed: 04/15/11 07:39 | | |
| 2-Fluorobiphenyl | 3.500 | 73.1 | 50 - 150 | 10.653 | 10.64 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 3.500 | 74.1 | 35 - 140 | 16.27 | 16.263 | 0.0070 | +/-0.050 | |
| **05-SS-045-0204-D (1104107-02 ) mg/Kg dry** | | | | Lab File ID: 033F3301.D | | Analyzed: 04/15/11 08:21 | | |
| 2-Fluorobiphenyl | 3.488 | 73.3 | 50 - 150 | 10.666 | 10.64 | 0.0260 | +/-0.050 | |
| o-Terphenyl | 3.488 | 70.8 | 35 - 140 | 16.273 | 16.263 | 0.0100 | +/-0.050 | |
| **05-SS-046-0204 (1104107-03 ) mg/Kg dry** | | | | Lab File ID: 034F3401.D | | Analyzed: 04/15/11 09:03 | | |
| 2-Fluorobiphenyl | 3.491 | 68.0 | 50 - 150 | 10.666 | 10.64 | 0.0260 | +/-0.050 | |
| o-Terphenyl | 3.491 | 71.9 | 35 - 140 | 16.273 | 16.263 | 0.0100 | +/-0.050 | |
| **Matrix Spike (1D13012-MS1 ) mg/Kg dry** | | | | Lab File ID: 035F3501.D | | Analyzed: 04/15/11 09:45 | | |
| 2-Fluorobiphenyl | 3.559 | 86.0 | 50 - 150 | 10.65 | 10.64 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.559 | 74.5 | 35 - 140 | 16.263 | 16.263 | 0.0000 | +/-0.050 | |
| **Matrix Spike Dup (1D13012-MSD1 ) mg/Kg dry** | | | | Lab File ID: 036F3601.D | | Analyzed: 04/15/11 10:28 | | |
| 2-Fluorobiphenyl | 3.469 | 82.8 | 50 - 150 | 10.65 | 10.64 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.469 | 71.9 | 35 - 140 | 16.263 | 16.263 | 0.0000 | +/-0.050 | |
| **05-SS-047-0204 (1104107-04 ) mg/Kg dry** | | | | Lab File ID: 037F3701.D | | Analyzed: 04/15/11 11:10 | | |
| 2-Fluorobiphenyl | 3.777 | 71.2 | 50 - 150 | 10.68 | 10.64 | 0.0400 | +/-0.050 | |
| o-Terphenyl | 3.777 | 70.9 | 35 - 140 | 16.28 | 16.263 | 0.0170 | +/-0.050 | |
| **05-SS-048-0204 (1104107-05 ) mg/Kg dry** | | | | Lab File ID: 038F3801.D | | Analyzed: 04/15/11 11:52 | | |
| 2-Fluorobiphenyl | 3.500 | 69.6 | 50 - 150 | 10.673 | 10.64 | 0.0330 | +/-0.050 | |
| o-Terphenyl | 3.500 | 73.8 | 35 - 140 | 16.276 | 16.263 | 0.0130 | +/-0.050 | |
| **05-SS-049-0204 (1104107-06 ) mg/Kg dry** | | | | Lab File ID: 039F3901.D | | Analyzed: 04/15/11 12:34 | | |
| 2-Fluorobiphenyl | 3.829 | 65.8 | 50 - 150 | 10.68 | 10.64 | 0.0400 | +/-0.050 | |
| o-Terphenyl | 3.829 | 70.2 | 35 - 140 | 16.28 | 16.263 | 0.0170 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10517 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-050-0204 (1104107-07 ) mg/Kg dry** | | | | Lab File ID: 040F4001.D | | Analyzed: 04/15/11 13:17 | | |
| 2-Fluorobiphenyl | 3.575 | 74.6 | 50 - 150 | 10.673 | 10.64 | 0.0330 | +/-0.050 | |
| o-Terphenyl | 3.575 | 72.2 | 35 - 140 | 16.273 | 16.263 | 0.0100 | +/-0.050 | |
| **Calibration Check (1D10517-CCV2 ) mg/L** | | | | Lab File ID: 041F4101.D | | Analyzed: 04/15/11 13:59 | | |
| 2-Fluorobiphenyl | 25.00 | 90.3 | 75 - 125 | 10.65 | 10.64 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 25.00 | 95.6 | 75 - 125 | 16.266 | 16.263 | 0.0030 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11108 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11108-CCV1 ) mg/L** | | | | Lab File ID: 002F0201.D | | Analyzed: 04/19/11 09:11 | | |
| 2-Fluorobiphenyl | 25.00 | 88.8 | 75 - 125 | 10.653 | 10.653 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 88.4 | 75 - 125 | 16.266 | 16.266 | 0.0000 | +/-0.050 | |
| **Blank (1D09815-BLK1 ) mg/Kg wet** | | | | Lab File ID: 004F0401.D | | Analyzed: 04/19/11 10:36 | | |
| 2-Fluorobiphenyl | 3.333 | 77.0 | 50 - 150 | 10.68 | 10.653 | 0.0270 | +/-0.050 | |
| o-Terphenyl | 3.333 | 64.1 | 35 - 140 | 16.28 | 16.266 | 0.0140 | +/-0.050 | |
| **LCS (1D09815-BS1 ) mg/Kg wet** | | | | Lab File ID: 005F0501.D | | Analyzed: 04/19/11 11:19 | | |
| 2-Fluorobiphenyl | 3.333 | 78.7 | 50 - 150 | 10.65 | 10.653 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 3.333 | 69.5 | 35 - 140 | 16.253 | 16.266 | -0.0130 | +/-0.050 | |
| **Calibration Check (1D11108-CCV2 ) mg/L** | | | | Lab File ID: 017F1701.D | | Analyzed: 04/19/11 19:50 | | |
| 2-Fluorobiphenyl | 25.00 | 93.0 | 75 - 125 | 10.633 | 10.653 | -0.0200 | +/-0.050 | |
| o-Terphenyl | 25.00 | 97.4 | 75 - 125 | 16.253 | 16.266 | -0.0130 | +/-0.050 | |
| **05-SS-037-0204-D (1104084-02 ) mg/Kg dry** | | | | Lab File ID: 018F1801.D | | Analyzed: 04/19/11 20:32 | | |
| 2-Fluorobiphenyl | 3.841 | 79.4 | 50 - 150 | 10.65 | 10.653 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 3.841 | 78.5 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |
| **05-SS-037-0204 (1104084-03 ) mg/Kg dry** | | | | Lab File ID: 019F1901.D | | Analyzed: 04/19/11 21:15 | | |
| 2-Fluorobiphenyl | 3.658 | 78.2 | 50 - 150 | 10.653 | 10.653 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 3.658 | 76.2 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |
| **05-SS-038-0204 (1104084-04 ) mg/Kg dry** | | | | Lab File ID: 020F2001.D | | Analyzed: 04/19/11 21:57 | | |
| 2-Fluorobiphenyl | 3.591 | 78.5 | 50 - 150 | 10.656 | 10.653 | 0.0030 | +/-0.050 | |
| o-Terphenyl | 3.591 | 74.5 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |
| **Matrix Spike (1D09815-MS1 ) mg/Kg dry** | | | | Lab File ID: 021F2101.D | | Analyzed: 04/19/11 22:40 | | |
| 2-Fluorobiphenyl | 3.521 | 77.1 | 50 - 150 | 10.643 | 10.653 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 3.521 | 74.0 | 35 - 140 | 16.25 | 16.266 | -0.0160 | +/-0.050 | |
| **Matrix Spike Dup (1D09815-MSD1 ) mg/Kg dry** | | | | Lab File ID: 022F2201.D | | Analyzed: 04/19/11 23:22 | | |
| 2-Fluorobiphenyl | 3.544 | 71.1 | 50 - 150 | 10.643 | 10.653 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 3.544 | 65.3 | 35 - 140 | 16.25 | 16.266 | -0.0160 | +/-0.050 | |
| **05-SS-039-0204 (1104084-05 ) mg/Kg dry** | | | | Lab File ID: 023F2301.D | | Analyzed: 04/20/11 00:04 | | |
| 2-Fluorobiphenyl | 3.543 | 66.7 | 50 - 150 | 10.663 | 10.653 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.543 | 72.5 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |
| **05-SS-040-0204 (1104084-07 ) mg/Kg dry** | | | | Lab File ID: 024F2401.D | | Analyzed: 04/20/11 00:47 | | |
| 2-Fluorobiphenyl | 3.555 | 76.7 | 50 - 150 | 10.656 | 10.653 | 0.0030 | +/-0.050 | |
| o-Terphenyl | 3.555 | 74.5 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11108 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-041-0204 (1104084-08 ) mg/Kg dry** | | | | Lab File ID: 025F2501.D | | Analyzed: 04/20/11 01:29 | | |
| 2-Fluorobiphenyl | 3.486 | 78.8 | 50 - 150 | 10.653 | 10.653 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 3.486 | 75.5 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |
| **05-SS-042-0204 (1104084-09 ) mg/Kg dry** | | | | Lab File ID: 026F2601.D | | Analyzed: 04/20/11 02:12 | | |
| 2-Fluorobiphenyl | 3.541 | 74.8 | 50 - 150 | 10.663 | 10.653 | 0.0100 | +/-0.050 | |
| o-Terphenyl | 3.541 | 72.3 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |
| **05-SS-043-0204 (1104084-10 ) mg/Kg dry** | | | | Lab File ID: 027F2701.D | | Analyzed: 04/20/11 02:54 | | |
| 2-Fluorobiphenyl | 3.907 | 71.7 | 50 - 150 | 10.66 | 10.653 | 0.0070 | +/-0.050 | |
| o-Terphenyl | 3.907 | 70.5 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |
| **05-SS-044-0204 (1104084-11 ) mg/Kg dry** | | | | Lab File ID: 028F2801.D | | Analyzed: 04/20/11 03:36 | | |
| 2-Fluorobiphenyl | 3.874 | 76.3 | 50 - 150 | 10.653 | 10.653 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 3.874 | 74.8 | 35 - 140 | 16.26 | 16.266 | -0.0060 | +/-0.050 | |
| **Calibration Check (1D11108-CCV3 ) mg/L** | | | | Lab File ID: 030F3001.D | | Analyzed: 04/20/11 05:01 | | |
| 2-Fluorobiphenyl | 25.00 | 93.4 | 75 - 125 | 10.636 | 10.653 | -0.0170 | +/-0.050 | |
| o-Terphenyl | 25.00 | 94.4 | 75 - 125 | 16.256 | 16.266 | -0.0100 | +/-0.050 | |

# Data for SW6010C Forms

Lead

# ANALYSIS SEQUENCE SUMMARY

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11034 | Instrument: | ME-ICP |
| Calibration: | 1110005 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D11034-CAL1 | 042011A-001 | 04/20/11 09:34 |
| Cal Standard | 1D11034-CAL2 | 042011A-002 | 04/20/11 09:39 |
| Cal Standard | 1D11034-CAL3 | 042011A-003 | 04/20/11 09:44 |
| Cal Standard | 1D11034-CAL6 | 042011A-006 | 04/20/11 09:59 |
| Initial Cal Check | 1D11034-ICV1 | 042011B-001 | 04/20/11 10:51 |
| Initial Cal Blank | 1D11034-ICB1 | 042011B-002 | 04/20/11 10:58 |
| Instrument RL Check | 1D11034-CRL2 | 042011B-005 | 04/20/11 11:13 |
| Interference Check A | 1D11034-IFA1 | 042011B-006 | 04/20/11 11:17 |
| Interference Check B | 1D11034-IFB1 | 042011B-007 | 04/20/11 11:23 |
| Calibration Check | 1D11034-CCV1 | 042011B-009 | 04/20/11 11:34 |
| Calibration Blank | 1D11034-CCB1 | 042011B-010 | 04/20/11 11:41 |
| Calibration Check | 1D11034-CCV5 | 042011D-011 | 04/20/11 16:05 |
| Calibration Blank | 1D11034-CCB5 | 042011D-012 | 04/20/11 16:12 |
| Blank | 1D19002-BLK1 | 042011D-013 | 04/20/11 16:17 |
| LCS | 1D19002-BS1 | 042011D-014 | 04/20/11 16:22 |
| 05-MW-039 | 1104084-06 | 042011D-027 | 04/20/11 17:26 |
| EQUIP BLANK 04 | 1104107-08 | 042011D-028 | 04/20/11 17:31 |
| Calibration Check | 1D11034-CCV6 | 042011D-029 | 04/20/11 17:37 |
| Calibration Blank | 1D11034-CCB6 | 042011D-030 | 04/20/11 17:44 |
| EQUIP BLANK 05 | 1104107-09 | 042011D-031 | 04/20/11 17:49 |
| 05-MW-049 | 1104107-10 | 042011D-032 | 04/20/11 17:53 |
| Calibration Check | 1D11034-CCV7 | 042011D-041 | 04/20/11 18:37 |
| Calibration Blank | 1D11034-CCB7 | 042011D-042 | 04/20/11 18:44 |

# INITIAL CALIBRATION DATA (Continued)

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110005 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/20/11 9:34 4/20/11 10:10 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 1.34257E-05 | 66.67738 | 9.68826 | 176.2102 | 1 | | 0.998 | |
| Antimony | 6.13405E-04 | 66.78805 | 11.24007 | 184.7328 | 0.999985 | | 0.998 | |
| Arsenic | 2.634875E-04 | 66.85137 | 9.14919 | 176.1114 | 0.9999767 | | 0.998 | |
| Barium | 9.44195E-03 | 66.77036 | 3.19633 | 137.103 | 0.9999646 | | 0.998 | |
| Beryllium | 1.968675E-03 | 66.93233 | 10.00396 | 185.9072 | 0.9998878 | | 0.998 | |
| Boron | 9.4005E-06 | 66.70141 | 5.620872 | 184.9005 | 0.9999464 | | 0.998 | |
| Cadmium | 0.0112655 | 66.83831 | 3.276718 | 152.2017 | 0.9999264 | | 0.998 | |
| Calcium | 2.775318E-05 | 66.74538 | 4.052527 | 166.7076 | 0.9999846 | | 0.998 | |
| Chromium | 2.6038E-05 | 66.73873 | 13.36742 | 195.2252 | 0.9999971 | | 0.998 | |
| Cobalt | 4.80995E-03 | 66.67174 | 2.47807 | 147.0987 | 0.9999979 | | 0.998 | |
| Copper | 5.974375E-05 | 66.78976 | 1.387982 | 102.6855 | 0.9999907 | | 0.998 | |
| Iron | 9.980951E-06 | 67.10156 | 31.33113 | 193.913 | 0.9999962 | | 0.998 | |
| Lead | 1.05015E-03 | 66.67147 | 5.961223 | 179.9537 | 0.9999996 | | 0.998 | |
| Magnesium | 1.168115E-06 | 66.70768 | 14.45525 | 186.5661 | 0.9999729 | | 0.998 | |
| Manganese | 1.643725E-04 | 66.93897 | 4.87142 | 173.6866 | 0.9999503 | | 0.998 | |
| Molybdenum | 0.0031796 | 66.71221 | 10.24301 | 186.9111 | 0.9999906 | | 0.998 | |
| Nickel | 2.54125E-03 | 66.71998 | 1.681517 | 124.9822 | 0.9999975 | | 0.998 | |
| Potassium | 6.8106E-06 | 67.62205 | 4.402972 | 163.6635 | 0.9999988 | | 0.998 | |
| Selenium | 3.408125E-04 | 66.71818 | 5.340835 | 171.3968 | 0.9999784 | | 0.998 | |
| Silver | 3.7515E-05 | 66.76794 | 3.289747 | 130.9317 | 0.9998613 | | 0.998 | |
| Sodium | 3.08615E-05 | 66.71685 | 4.951525 | 131.4078 | 0.9999759 | | 0.998 | |
| Strontium | 0.0011375 | 66.77024 | 1.3237 | 77.89416 | 0.9999678 | | 0.998 | |
| Thallium | 6.659675E-04 | 66.68208 | 2.614618 | 151.8006 | 0.9999935 | | 0.998 | |
| Tin | 9.87545E-04 | 66.69404 | 33.36887 | 194.7364 | 0.9999572 | | 0.998 | |
| Titanium | 1.5256E-04 | 66.7141 | 6.255733 | 180.0551 | 0.9999923 | | 0.998 | |
| Vanadium | 3.0615E-05 | 66.7547 | 4.316093 | 189.531 | 0.9999911 | | 0.998 | |
| Zinc | 4.298875E-03 | 66.71755 | 21.06829 | 194.1934 | 0.9999791 | | 0.998 | |

# INITIAL CALIBRATION DATA

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110005 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/20/11 9:34 4/20/11 10:10 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Aluminum | 0 | 0 | 5000 | 1.7678E-05 | 10000 | 1.8049E-05 | | | 500000 | 1.79758E-05 | | |
| Antimony | 0 | 0 | 100 | 0.0007874 | 1000 | 8.4787E-04 | | | | | 10000 | 8.1835E-04 |
| Arsenic | 0 | 0 | 100 | 0.0003352 | 1000 | 3.6725E-04 | | | | | 10000 | 0.0003515 |
| Barium | 0 | 0 | 50 | 0.013039 | 1000 | 0.012547 | 5000 | 0.0121818 | | | | |
| Beryllium | 0 | 0 | 100 | 0.0026836 | 1000 | 0.0027299 | | | | | 10000 | 0.0024612 |
| Boron | 0 | 0 | 50 | 0.0000124 | 1000 | 1.282E-05 | | | | | 5000 | 1.2382E-05 |
| Cadmium | 0 | 0 | 100 | 0.015246 | 1000 | 0.015539 | | | | | 10000 | 0.014277 |
| Calcium | 0 | 0 | 1100 | 3.797273E-05 | 50000 | 3.7234E-05 | | | | | 10000 | |
| Chromium | 0 | 0 | 100 | 0.0000358 | 1000 | 3.449E-05 | | | | | 10000 | 3.3862E-05 |
| Cobalt | 0 | 0 | 100 | 0.0064147 | 1000 | 0.006461 | | | | | 10000 | 0.0063641 |
| Copper | 0 | 0 | 100 | 0.0000827 | 1000 | 7.949999E-05 | | | | | 10000 | 7.6775E-05 |
| Iron | 0 | 0 | 5100 | 1.40098E-05 | 10000 | 1.3664E-05 | | | 500000 | 1.225E-05 | 10000 | |
| Lead | 0 | 0 | 100 | 0.0014105 | 1000 | 0.0014002 | | | | | 10000 | 0.0013899 |
| Magnesium | 0 | 0 | 5100 | | 50000 | 1.5262E-06 | | | 500000 | 1.59276E-06 | 10000 | |
| Manganese | 0 | 0 | 100 | 0.00023 | 1000 | 2.2145E-04 | 10000 | 2.0604E-04 | | | 10000 | |
| Molybdenum | 0 | 0 | 100 | 0.0041559 | 1000 | 0.0043443 | | | | | 10000 | 0.0042182 |
| Nickel | 0 | 0 | 100 | 0.0034765 | 1000 | 0.0033768 | | | | | 10000 | 0.0033117 |
| Potassium | 0 | 0 | 1000 | 7.99E-06 | 10000 | 9.61E-06 | | | | | | |
| Selenium | 0 | 0 | 100 | 0.000456 | 1000 | 4.6448E-04 | | | | | 10000 | 4.4277E-04 |
| Silver | 0 | 0 | 20 | 0.0000515 | 500 | 4.818E-05 | 2000 | 5.038E-05 | | | | |
| Sodium | 0 | 0 | 1000 | | 50000 | 4.2254E-05 | | | | | | |
| Strontium | 0 | 0 | 100 | 0.00155 | 1000 | 0.001543 | | | | | 10000 | 0.001457 |
| Thallium | 0 | 0 | 100 | 0.0008923 | 1000 | 8.9686E-04 | | | | | 10000 | 8.7471E-04 |
| Tin | 0 | 0 | 50 | 0.001304 | 1000 | 0.0013434 | | | | | 5000 | 1.30278E-03 |
| Titanium | 0 | 0 | 100 | 0.0002076 | 1000 | 2.0431E-04 | | | | | 10000 | 1.9833E-04 |
| Vanadium | 0 | 0 | 100 | 0.0000421 | 1000 | 4.083E-05 | | | | | 10000 | 3.953E-05 |
| Zinc | 0 | 0 | 100 | 0.0056788 | 1000 | 0.0058876 | | | | | 10000 | 0.0056291 |

# INITIAL CALIBRATION DATA (Continued)

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110005 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/20/11 9:34 4/20/11 10:10 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Aluminum | | | | | | | | | | | | |
| Antimony | | | | | | | | | | | | |
| Arsenic | | | | | | | | | | | | |
| Barium | | | | | | | | | | | | |
| Beryllium | | | | | | | | | | | | |
| Boron | | | | | | | | | | | | |
| Cadmium | | | | | | | | | | | | |
| Calcium | 100000 | | 500000 | 3.5806E-05 | | | | | | | | |
| Chromium | | | | | | | | | | | | |
| Cobalt | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | |
| Iron | | | | | | | | | | | | |
| Lead | | | | | | | | | | | | |
| Magnesium | | | 100000 | 1.5535E-06 | | | | | | | | |
| Manganese | | | | | | | | | | | | |
| Molybdenum | | | | | | | | | | | | |
| Nickel | | | | | | | | | | | | |
| Potassium | 100000 | 9.6424E-06 | | | | | | | | | | |
| Selenium | | | | | | | | | | | | |
| Silver | | | | | | | | | | | | |
| Sodium | 100000 | 4.0396E-05 | 500000 | 4.0796E-05 | | | | | | | | |
| Strontium | | | | | | | | | | | | |
| Thallium | | | | | | | | | | | | |
| Tin | | | | | | | | | | | | |
| Titanium | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | |
| Zinc | | | | | | | | | | | | |

# INITIAL AND CONTINUING CALIBRATION CHECK

## SW6010C

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP

SDG: CTOJM26_006
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1110005
Sequence: 1D11034

| Lab Sample ID | Analyte | True | Found | %R | Units | Control Limit |
|---|---|---|---|---|---|---|
| 1D11034-ICV1 | Lead | 1000 | 965.6 | 96.6 | ug/L | +/- 10.00% |
| 1D11034-CCV1 | Lead | 1000 | 969.0 | 96.9 | ug/L | +/- 10.00% |
| 1D11034-CCV5 | Lead | 1000 | 948.9 | 94.9 | ug/L | +/- 10.00% |
| 1D11034-CCV6 | Lead | 1000 | 955.2 | 95.5 | ug/L | +/- 10.00% |
| 1D11034-CCV7 | Lead | 1000 | 948.2 | 94.8 | ug/L | +/- 10.00% |

# PREPARATION BATCH SUMMARY

## SW6010C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D19002 Batch Matrix: Water Preparation: MET_3005A

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-039 | 1104084-06 | 04/19/11 07:35 | 50.00 | 50.00 |
| EQUIP BLANK 04 | 1104107-08 | 04/19/11 07:35 | 50.00 | 50.00 |
| EQUIP BLANK 05 | 1104107-09 | 04/19/11 07:35 | 50.00 | 50.00 |
| 05-MW-049 | 1104107-10 | 04/19/11 07:35 | 50.00 | 50.00 |
| Blank | 1D19002-BLK1 | 04/19/11 07:35 | 50.00 | 50.00 |
| LCS | 1D19002-BS1 | 04/19/11 07:35 | 50.00 | 50.00 |

# BLANKS
## SW6010C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_006
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D11034
Calibration: 1110005

| Lab Sample ID | Analyte | Found | MDL | MRL | Units | C | Method |
|---|---|---|---|---|---|---|---|
| 1D11034-ICB1 | Lead | -0.2524 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11034-CCB1 | Lead | -0.412 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11034-CCB5 | Lead | -0.445 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D19002-BLK1 | Lead | -0.761 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11034-CCB6 | Lead | -0.158 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11034-CCB7 | Lead | -0.337 | 1.50 | 3.00 | ug/L | U | SW6010C |

# LCS / LCS DUPLICATE RECOVERY

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_006 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D19002 | Laboratory ID: | 1D19002-BS1 |
| Preparation: | MET_3005A | Initial/Final: | 50 mL / 50 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Lead | 250.0 | 241.0 | 96.4 | 80 - 120 |

# CRDL STANDARD

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1110005

Sequence: 1D11034

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| 1D11034-CRL2 | Lead | 3.000 | 2.484 | 82.8 | ug/L | 80 - 120 |

# ICP INTERFERENCE CHECK SAMPLE

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_006

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1110005

Sequence: 1D11034

| Lab Sample ID | Analyte | True | Found | %R | Units |
|---|---|---|---|---|---|
| 1D11034-IFA1 | Lead | | 7.95 | | ug/L |
| 1D11034-IFB1 | Lead | 50.00 | 52.87 | 106 | ug/L |

# ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010) SDG: CTOJM26_006

Project: NAS Pensacola CTO JM26 Saufley

ICP Instrument ID: ME-ICP Date: 09/11/2009

| Analyte | Integ. Time (Sec.) | Concentration ug/L | M |
|---|---|---|---|
| Lead | 15 | 10000 | P |
| Lead | 15 | 10000 | P |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_006

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** ME-ICP

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Lead | 1.50 | 3.00 | ug/L | SW6010C |

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_006

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Al | Ca | Fe | Mg | Ag |
| Lead | 220.3 | 0.0002980 | 0.0000000 | 0.0000080 | 0.0003250 | 0.0000000 |
| Lead | 220.3 | 0.0002980 | 0.0000000 | 0.0000080 | 0.0003250 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_006

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | As | B | Ba | Be | Cd |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_006

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Co | Cr | Cu | K | Mn |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0022600 | 0.0000000 | 0.0000990 |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0022600 | 0.0000000 | 0.0000990 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_006

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Mo | Na | Ni | Pb | Sb |
| Lead | 220.3 | -0.0026440 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |
| Lead | 220.3 | -0.0026440 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_006

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Se | Sn | Ti | Tl | V |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0000360 |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0000360 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_006

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: Zn | | | | |
|---|---|---|---|---|---|---|
| Lead | 220.3 | 0.0000000 | | | | |
| Lead | 220.3 | 0.0000000 | | | | |

Comments:

FORM XA-IN

# SAUFLEY FIELD
# SOIL DATA
# CTOJM26_006

| FRACTION | CHEMICAL | 05-SS-037-0204-D | UNITS | 05-SS-037-0204 | RPD | D |
|---|---|---|---|---|---|---|
| PAH | BENZO(G,H,I)PERYLENE | 0.00205 J | MG/KG | ND | 200.00 | 0.00 |

N/A < 2X R.L.

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 18, 2011** |
| **FROM:** | **MICHELLE ALLEN** | **COPIES:** | **DV FILE** |

**SUBJECT:** **INORGANIC & ORGANIC DATA VALIDATION – VOC/BTEX+MTBE/PAH/TRPH/LEAD**
**CTO JM26, NAS PENSACOLA, SAUFLEY FIELD**
**SDG CTOJM26_007**

**SAMPLES:** 2/Aqueous/VOC

05-MW-053 Trip Blank 9479

1/Aqueous/BTEX+MTBE

Trip Blank #9474

1/Aqueous/PAH/TRPH/Lead

05-MW-053

12/Soil/BTEX+MTBE/PAH/TRPH

| | | |
|---|---|---|
| 05-SS-029-0204 | 05-SS-051-0204 | 05-SS-052-0204 |
| 05-SS-053-0002 | 05-SS-054-0204 | 05-SS-088-0406 |
| 05-SS-089-0406 | 05-SS-090-0204 | 05-SS-095-0204 |
| 05-SS-096-0204 | 05-SS-097-0204 | 05-SS-098-0204 |

1/Aqueous Waste/BTEX+MTBE/PAH/TRPH

IDW Drums

## OVERVIEW

The sample set for CTO JM26 NAS Pensacola, Saufley Field SDG CTOJM26_007 consisted of twelve (12) soil environmental samples, one (1) aqueous environmental sample, one (1) aqueous waste sample, and (2) trip blank samples. All twelve soil samples and the waste sample were analyzed as indicated above for benzene, toluene, ethylbenzene, total xylenes and methyl tert-butyl ether (BTEX+MTBE), polynuclear aromatic hydrocarbons (PAH), and total recoverable petroleum hydrocarbons (TRPH). The aqueous environmental sample was analyzed for select volatile organic compounds (VOC), PAH, TRPH and lead. One trip blank was analyzed for select VOCs and the other trip blank was analyzed for BTEX+MTBE. No field duplicate pairs were associated with this Sample Delivery Group (SDG).

The samples were collected by TetraTech NUS on April 10 and 12, 2011 and analyzed by Empirical Laboratories, LLC. All analyses were conducted in accordance with SW-846 Methods 6010C, 8011, 8260B, 8270C, and Method FL-PRO analytical and reporting protocols.

The data contained in this SDG were validated with regard to the following parameters:

- Data Completeness
- * Holding Times/Sample Preservation
- Initial/Continuing Calibrations

- Laboratory Method and Field Blank Results
- * Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

The text of this report is formatted to address only gross non-compliances resulting in the rejection of data and the elimination of false positives.

**VOC**

The continuing calibration performed on instrument MSVOA-5 on 04/21/11 @ 07:38 had a Relative Response Factor (RRF) for acrolein below the 0.05 quality control limit. In addition, the Percent Difference (%D) for this compound exceeded the 20% quality control criterion. Samples 05-MW-053 and Trip Blank 9479 was affected. The non-detected results reported for acrolein in the affected samples were qualified as rejected, (UR).

The continuing calibration performed on instrument MSVOA-5 on 04/26/11 @ 16:53 had a %Ds for methyl t-butyl ether above the 20% quality control limit. The non-detected result reported for this compound in the affected sample, IDW Drums, was qualified as estimated, (UJ).

**PAH**

No issues were identified.

**TRPH**

No issues were identified.

**LEAD**

No issues were identified.

**NOTES**

The continuing calibration %Ds for 1,2-dibromoethane performed on instrument GL-ECD2 on GC column 2 on 04/19/11 @ 14:06, 16:52, and 20:25 were greater than the 20% quality control limit. No action was taken because the %D on GC column 1 was acceptable.

The following contaminant was detected in the trip blank, Trip Blank 9479 at the following maximum concentration:

| Analyte | Maximum Conc. (µg/L) | Action Level (µg/L) |
|---|---|---|
| 1,2,4-Trichlorobenzene [1] | 0.312 | 1.56 |

[1] Maximum concentration detected in Trip Blank 9479 affecting sample 05-MW-053.

An action level of 5X the maximum contaminant level was used for toluene to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were taken into consideration when

evaluating for blank contamination. No action was necessary because toluene was not detected in the affected sample.

A full VOC analyte list was not initially provided for the required samples in this SDG as stated in the project specific Sampling and Analysis Plan (SAP).

Trichlorofluoromethane was omitted from the laboratory's Form Is for samples 05-MW-053 and Trip Blank 9479. The results for this compound were included in the Qualified Analytical Results in Appendix A.

Positive results reported above the Limit of Detection (LOD) but below the Limit of Quantitation (LOQ) were qualified as estimated, (J). Non-detected results were reported to the Detection Limit (DL).

**EXECUTIVE SUMMARY**

**Laboratory Performance Issues:** An incomplete VOC analyte list was provided. A continuing calibration had a RRF for acrolein below the quality control limit. Continuing calibration %Ds were above the quality control limit in the VOC fraction.

**Other Factors Affecting Data Quality:** Toluene was detected in the trip. Positive results reported above the LOD but below the LOQ were estimated. Non-detected results were reported to the DL.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99), Inorganic National Functional Guidelines (October 2004), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Michelle L. Allen
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

**Data Validation Qualifier Codes:**

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

| PROJ_NO: 02748 | NSAMPLE | 05-MW-053 | | | IDW Drums | | | Trip Blank #9474 | | | Trip Blank 9479 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104123-05 | | | 1104159-06RE1 | | | 1104159-05 | | | 1104123-10 | | |
| FRACTION: OV | SAMP_DATE | 4/10/2011 | | | 4/12/2011 | | | 4/12/2011 | | | 4/10/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1,1,1-TRICHLOROETHANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| 1,1,2,2-TETRACHLOROETHANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| 1,1,2-TRICHLOROETHANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| 1,1-DICHLOROETHANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| 1,1-DICHLOROETHENE | | 0.25 | U | | | | | | | | 0.25 | U | |
| 1,2,4-TRICHLOROBENZENE | | 0.25 | U | | | | | | | | 0.312 | J | P |
| 1,2-DIBROMOETHANE | | 0.00921 | U | | | | | | | | 0.25 | U | |
| 1,2-DICHLOROETHANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| 1,2-DICHLOROPROPANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| 2-CHLOROETHYL VINYL ETHER | | 1.25 | U | | | | | | | | 1.25 | U | |
| ACROLEIN | | 1.25 | UR | C | | | | | | | 1.2 | UR | C |
| ACRYLONITRILE | | 2.5 | U | | | | | | | | 2.5 | U | |
| BENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| BROMODICHLOROMETHANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| BROMOFORM | | 0.25 | U | | | | | | | | 0.25 | U | |
| BROMOMETHANE | | 0.5 | U | | | | | | | | 0.5 | U | |
| CARBON TETRACHLORIDE | | 0.25 | U | | | | | | | | 0.25 | U | |
| CHLOROBENZENE | | 0.25 | U | | | | | | | | 0.25 | U | |
| CHLORODIBROMOMETHANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| CHLOROETHANE | | 0.5 | U | | | | | | | | 0.5 | U | |
| CHLOROFORM | | 0.25 | U | | | | | | | | 0.25 | U | |
| CHLOROMETHANE | | 0.25 | U | | | | | | | | 0.25 | U | |
| CIS-1,2-DICHLOROETHENE | | 0.25 | U | | | | | | | | 0.25 | U | |
| CIS-1,3-DICHLOROPROPENE | | 0.25 | U | | | | | | | | 0.25 | U | |
| ETHYLBENZENE | | 0.25 | U | | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | | 0.25 | UJ | C | 0.25 | U | | 0.25 | U | |
| TETRACHLOROETHENE | | 0.25 | U | | | | | | | | 0.25 | U | |
| TOLUENE | | 0.329 | J | P | 0.25 | U | | 0.25 | U | | 0.25 | U | |
| TOTAL XYLENES | | 0.75 | U | | 0.75 | U | | 0.75 | U | | 0.75 | U | |
| TRANS-1,2-DICHLOROETHENE | | 0.25 | U | | | | | | | | 0.25 | U | |
| TRANS-1,3-DICHLOROPROPENE | | 0.25 | U | | | | | | | | 0.25 | U | |
| TRICHLOROETHENE | | 0.25 | U | | | | | | | | 0.25 | U | |
| TRICHLOROFLUOROMETHANE | | 0.5 | U | | | | | | | | 0.5 | U | |
| VINYL CHLORIDE | | 0.25 | U | | | | | | | | 0.25 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-029-0204 | | | 05-SS-051-0204 | | | 05-SS-052-0204 | | | 05-SS-053-0002 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104123-06 | | | 1104123-01 | | | 1104123-02 | | | 1104123-03 | | |
| FRACTION: OV | SAMP_DATE | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.4 | | | 84.2 | | | 85.2 | | | 87.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00128 | U | | 0.00158 | U | | 0.00152 | U | | 0.00129 | U | |
| ETHYLBENZENE | | 0.00128 | U | | 0.00158 | U | | 0.00152 | U | | 0.00129 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00128 | U | | 0.00158 | U | | 0.00152 | U | | 0.00129 | U | |
| TOLUENE | | 0.00128 | U | | 0.00158 | U | | 0.00152 | U | | 0.00129 | U | |
| TOTAL XYLENES | | 0.00385 | U | | 0.00475 | U | | 0.00457 | U | | 0.00387 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-054-0204 | | | 05-SS-088-0406 | | | 05-SS-089-0406 | | | 05-SS-090-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104123-04 | | | 1104123-09 | | | 1104123-08 | | | 1104123-07 | | |
| FRACTION: OV | SAMP_DATE | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.7 | | | 89.6 | | | 93.6 | | | 93.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00137 | U | | 0.00137 | U | | 0.0013 | U | | 0.00126 | U | |
| ETHYLBENZENE | | 0.00137 | U | | 0.00137 | U | | 0.0013 | U | | 0.00126 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00137 | U | | 0.00137 | U | | 0.0013 | U | | 0.00126 | U | |
| TOLUENE | | 0.00137 | U | | 0.00137 | U | | 0.0013 | U | | 0.00126 | U | |
| TOTAL XYLENES | | 0.00412 | U | | 0.00411 | U | | 0.0039 | U | | 0.00377 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-095-0204 | | | 05-SS-096-0204 | | | 05-SS-097-0204 | | | 05-SS-098-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104159-01 | | | 1104159-02 | | | 1104159-03 | | | 1104159-04 | | |
| FRACTION: OV | SAMP_DATE | 4/12/2011 | | | 4/12/2011 | | | 4/12/2011 | | | 4/12/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 90.8 | | | 83.6 | | | 86.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00155 | U | | 0.0014 | U | | 0.0016 | U | | 0.00132 | U | |
| ETHYLBENZENE | | 0.00092 | U | | 0.00084 | U | | 0.00096 | U | | 0.00079 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00155 | U | | 0.0014 | U | | 0.0016 | U | | 0.00132 | U | |
| TOLUENE | | 0.00106 | U | | 0.00096 | U | | 0.0011 | U | | 0.0009 | U | |
| TOTAL XYLENES | | 0.00464 | U | | 0.00421 | U | | 0.0048 | U | | 0.00396 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-MW-053 | | | IDW Drums | | |
|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104123-05 | | | 1104159-06 | | |
| FRACTION: PAH | SAMP_DATE | 4/10/2011 | | | 4/12/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0481 | U | | 0.0463 | U | |
| 2-METHYLNAPHTHALENE | | 0.0481 | U | | 0.0463 | U | |
| ACENAPHTHENE | | 0.0481 | U | | 0.0463 | U | |
| ACENAPHTHYLENE | | 0.0481 | U | | 0.0463 | U | |
| ANTHRACENE | | 0.0608 | J | P | 0.0463 | U | |
| BENZO(A)ANTHRACENE | | 0.242 | | | 0.0463 | U | |
| BENZO(A)PYRENE | | 0.0481 | U | | 0.0463 | U | |
| BENZO(B)FLUORANTHENE | | 0.0488 | J | P | 0.0463 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0506 | J | P | 0.0463 | U | |
| BENZO(K)FLUORANTHENE | | 0.0567 | J | P | 0.0463 | U | |
| CHRYSENE | | 0.0543 | J | P | 0.0463 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0554 | J | P | 0.0463 | U | |
| FLUORANTHENE | | 0.0564 | J | P | 0.0463 | U | |
| FLUORENE | | 0.0481 | U | | 0.0463 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0507 | J | P | 0.0463 | U | |
| NAPHTHALENE | | 0.0481 | U | | 0.0503 | J | P |
| PHENANTHRENE | | 0.0713 | J | P | 0.0463 | U | |
| PYRENE | | 0.055 | J | P | 0.0463 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-029-0204 | | | 05-SS-051-0204 | | | 05-SS-052-0204 | | | 05-SS-053-0002 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104123-06 | | | 1104123-01 | | | 1104123-02 | | | 1104123-03 | | |
| FRACTION: PAH | SAMP_DATE | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.4 | | | 84.2 | | | 85.2 | | | 87.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.331 | | |
| 2-METHYLNAPHTHALENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.353 | | |
| ACENAPHTHENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| ACENAPHTHYLENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| ANTHRACENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| BENZO(A)ANTHRACENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| BENZO(A)PYRENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| BENZO(B)FLUORANTHENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| BENZO(K)FLUORANTHENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| CHRYSENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0022 | J | P | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| FLUORANTHENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| FLUORENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00174 | J | P | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| NAPHTHALENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.0626 | | |
| PHENANTHRENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |
| PYRENE | | 0.00172 | U | | 0.00194 | U | | 0.00191 | U | | 0.00191 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-054-0204 | | | 05-SS-088-0406 | | | 05-SS-089-0406 | | | 05-SS-090-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104123-04 | | | 1104123-09 | | | 1104123-08 | | | 1104123-07 | | |
| FRACTION: PAH | SAMP_DATE | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.7 | | | 89.6 | | | 93.6 | | | 93.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00184 | U | | 0.0075 | | | 0.00175 | U | | 0.00173 | U | |
| 2-METHYLNAPHTHALENE | | 0.00184 | U | | 0.00892 | | | 0.00175 | U | | 0.00173 | U | |
| ACENAPHTHENE | | 0.00184 | U | | 0.0466 | | | 0.00175 | U | | 0.00173 | U | |
| ACENAPHTHYLENE | | 0.00184 | U | | 0.0018 | U | | 0.00175 | U | | 0.00173 | U | |
| ANTHRACENE | | 0.00184 | U | | 0.0596 | | | 0.00175 | U | | 0.00173 | U | |
| BENZO(A)ANTHRACENE | | 0.00184 | U | | 0.108 | | | 0.00175 | U | | 0.00173 | U | |
| BENZO(A)PYRENE | | 0.00184 | U | | 0.0877 | | | 0.00175 | U | | 0.00173 | U | |
| BENZO(B)FLUORANTHENE | | 0.00184 | U | | 0.107 | | | 0.00175 | U | | 0.00173 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00184 | U | | 0.0446 | | | 0.00175 | U | | 0.00173 | U | |
| BENZO(K)FLUORANTHENE | | 0.00184 | U | | 0.045 | | | 0.00175 | U | | 0.00173 | U | |
| CHRYSENE | | 0.00184 | U | | 0.102 | | | 0.00175 | U | | 0.00198 | J | P |
| DIBENZO(A,H)ANTHRACENE | | 0.00184 | U | | 0.0159 | | | 0.00175 | U | | 0.00173 | U | |
| FLUORANTHENE | | 0.00184 | U | | 0.245 | | | 0.00175 | U | | 0.0023 | I | |
| FLUORENE | | 0.00184 | U | | 0.0269 | | | 0.00175 | U | | 0.00173 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00184 | U | | 0.0392 | | | 0.00175 | U | | 0.00173 | U | |
| NAPHTHALENE | | 0.00184 | U | | 0.0214 | | | 0.00175 | U | | 0.00173 | U | |
| PHENANTHRENE | | 0.00184 | U | | 0.197 | | | 0.00175 | U | | 0.00173 | U | |
| PYRENE | | 0.00184 | U | | 0.191 | | | 0.00175 | U | | 0.00173 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-095-0204 | | | 05-SS-096-0204 | | | 05-SS-097-0204 | | | 05-SS-098-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104159-01 | | | 1104159-02 | | | 1104159-03 | | | 1104159-04 | | |
| FRACTION: PAH | SAMP_DATE | 4/12/2011 | | | 4/12/2011 | | | 4/12/2011 | | | 4/12/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 90.8 | | | 83.6 | | | 86.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| 2-METHYLNAPHTHALENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| ACENAPHTHENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| ACENAPHTHYLENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| ANTHRACENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| BENZO(A)ANTHRACENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| BENZO(A)PYRENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| BENZO(B)FLUORANTHENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| BENZO(K)FLUORANTHENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| CHRYSENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| FLUORANTHENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| FLUORENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| NAPHTHALENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| PHENANTHRENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |
| PYRENE | | 0.00182 | U | | 0.00181 | U | | 0.00192 | U | | 0.00187 | U | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-053 | | | IDW Drums | | |
| **SDG: CTOJM26_007** | LAB_ID | 1104123-05 | | | 1104159-06 | | |
| **FRACTION: PET** | SAMP_DATE | 4/10/2011 | | | 4/12/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | | NM | | |
| | UNITS | MG/L | | | MG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.167 | U | | 0.189 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-029-0204 | | | 05-SS-051-0204 | | | 05-SS-052-0204 | | | 05-SS-053-0002 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104123-06 | | | 1104123-01 | | | 1104123-02 | | | 1104123-03 | | |
| FRACTION: PET | SAMP_DATE | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.4 | | | 84.2 | | | 85.2 | | | 87.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.4 | U | | 12.8 | U | | 12.9 | U | | 694 | | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-054-0204 | | | 05-SS-088-0406 | | | 05-SS-089-0406 | | | 05-SS-090-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104123-04 | | | 1104123-09 | | | 1104123-08 | | | 1104123-07 | | |
| FRACTION: PET | SAMP_DATE | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | | 4/10/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.7 | | | 89.6 | | | 93.6 | | | 93.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12 | U | | 34 | J | P | 19.8 | J | P | 11.7 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-095-0204 | | | 05-SS-096-0204 | | | 05-SS-097-0204 | | | 05-SS-098-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_007 | LAB_ID | 1104159-01 | | | 1104159-02 | | | 1104159-03 | | | 1104159-04 | | |
| FRACTION: PET | SAMP_DATE | 4/12/2011 | | | 4/12/2011 | | | 4/12/2011 | | | 4/12/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.1 | | | 90.8 | | | 83.6 | | | 86.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 28.9 | J | P | 23.8 | J | P | 39.3 | J | P | 25.9 | J | P |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-MW-053 | | |
| **SDG: CTOJM26_007** | LAB_ID | 1104123-05 | | |
| **FRACTION: M** | SAMP_DATE | 4/10/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| LEAD | | 127 | | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-MW-053**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1104123-05 | File ID: | 0412305.D |
| Sampled: | 04/10/11 14:30 | Prepared: | 04/21/11 00:00 | Analyzed: | 04/21/11 10:33 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D21008 Sequence: 1D11204 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.25 | 2.50 | 5.00 | Y, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | 0.329 | 0.250 | 0.500 | 1.00 | I |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.62 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 29.06 | 96.9 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 29.01 | 96.7 | 70 - 120 | |

# ANALYSIS DATA SHEET

**05-MW-053**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1104123-05 | File ID: | 0412305.D |
| Sampled: | 04/10/11 14:30 | Prepared: | 04/21/11 00:00 | Analyzed: | 04/21/11 10:33 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D21008 Sequence: 1D11204 Calibration: 1110001 Instrument: MS-VOA5

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 30.81 | 103 | 85 - 120 | |

# ANALYSIS DATA SHEET

**Trip Blank 9479**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104123-10 | File ID: | 0412310.D |
| Sampled: | 04/10/11 00:00 | Prepared: | 04/21/11 00:00 | Analyzed: | 04/21/11 09:42 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D21008 Sequence: 1D11204 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.312 | 0.250 | 0.500 | 1.00 | I |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-69-4 | Trichlorofluoromethane | | 0.500 | 1.00 | 2.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 29.05 | 96.8 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 28.81 | 96.0 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.29 | 101 | 70 - 120 | |

# ANALYSIS DATA SHEET

**Trip Blank 9479**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104123-10 | File ID: | 0412310.D |
| Sampled: | 04/10/11 00:00 | Prepared: | 04/21/11 00:00 | Analyzed: | 04/21/11 09:42 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D21008 Sequence: 1D11204 Calibration: 1110001 Instrument: MS-VOA5

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Toluene-d8 | 30.00 | 30.08 | 100 | 85 - 120 | |

# ANALYSIS DATA SHEET

**Trip Blank #9474**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104159-05 | File ID: | 0415905.D |
| Sampled: | 04/12/11 00:00 | Prepared: | 04/25/11 00:00 | Analyzed: | 04/25/11 11:40 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D25007 Sequence: 1D11614 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 29.46 | 98.2 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 29.30 | 97.7 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 28.95 | 96.5 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.68 | 106 | 85 - 120 | |

# ANALYSIS DATA SHEET

**IDW Drums**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104159-06RE1 | File ID: | 0415906R.D |
| Sampled: | 04/12/11 10:00 | Prepared: | 04/26/11 16:00 | Analyzed: | 04/26/11 18:43 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D26026 Sequence: 1D11710 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | X, U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 28.93 | 96.4 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.07 | 100 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 29.76 | 99.2 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.10 | 100 | 85 - 120 | |

# ANALYSIS DATA SHEET

**05-SS-029-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-06 | File ID: | 0412306.D |
| Sampled: | 04/10/11 15:50 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 14:32 |
| Solids: | 92.35 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00128 | 0.00257 | 0.00514 | U |
| 100-41-4 | Ethylbenzene | | 0.00128 | 0.00257 | 0.00514 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00128 | 0.00257 | 0.00514 | U |
| 108-88-3 | Toluene | | 0.00128 | 0.00257 | 0.00514 | U |
| 1330-20-7 | Xylenes (total) | | 0.00385 | 0.00771 | 0.0154 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03082 | 0.02992 | 97.1 | 85 - 120 | |
| Dibromofluoromethane | 0.03082 | 0.03196 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03082 | 0.03104 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03082 | 0.03346 | 109 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-051-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-01 | File ID: | 0412301.D |
| Sampled: | 04/10/11 13:15 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 13:17 |
| Solids: | 84.25 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00158 | 0.00316 | 0.00633 | U |
| 100-41-4 | Ethylbenzene | | 0.00158 | 0.00316 | 0.00633 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00158 | 0.00316 | 0.00633 | U |
| 108-88-3 | Toluene | | 0.00158 | 0.00316 | 0.00633 | U |
| 1330-20-7 | Xylenes (total) | | 0.00475 | 0.00949 | 0.0190 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03796 | 0.03945 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03796 | 0.03938 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03796 | 0.03795 | 100 | 75 - 140 | |
| Toluene-d8 | 0.03796 | 0.03932 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-052-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-02 | File ID: | 0412302.D |
| Sampled: | 04/10/11 13:40 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 13:42 |
| Solids: | 85.24 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00152 | 0.00305 | 0.00610 | U |
| 100-41-4 | Ethylbenzene | | 0.00152 | 0.00305 | 0.00610 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00152 | 0.00305 | 0.00610 | U |
| 108-88-3 | Toluene | | 0.00152 | 0.00305 | 0.00610 | U |
| 1330-20-7 | Xylenes (total) | | 0.00457 | 0.00915 | 0.0183 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03659 | 0.03810 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03659 | 0.03745 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03659 | 0.03626 | 99.1 | 75 - 140 | |
| Toluene-d8 | 0.03659 | 0.03809 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-053-0002

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-03 | File ID: | 0412303.D |
| Sampled: | 04/10/11 13:55 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 16:14 |
| Solids: | 87.23 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00129 | 0.00258 | 0.00516 | U |
| 100-41-4 | Ethylbenzene | | 0.00129 | 0.00258 | 0.00516 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00129 | 0.00258 | 0.00516 | U |
| 108-88-3 | Toluene | | 0.00129 | 0.00258 | 0.00516 | U |
| 1330-20-7 | Xylenes (total) | | 0.00387 | 0.00775 | 0.0155 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03098 | 0.04779 | 154 | 85 - 120 | * |
| Dibromofluoromethane | 0.03098 | 0.04983 | 161 | 80 - 125 | * |
| 1,2-Dichloroethane-d4 | 0.03098 | 0.04617 | 149 | 75 - 140 | * |
| Toluene-d8 | 0.03098 | 0.03267 | 105 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-054-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-04 | File ID: | 0412304.D |
| Sampled: | 04/10/11 15:15 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 14:07 |
| Solids: | 90.71 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00137 | 0.00275 | 0.00549 | U |
| 100-41-4 | Ethylbenzene | | 0.00137 | 0.00275 | 0.00549 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00137 | 0.00275 | 0.00549 | U |
| 108-88-3 | Toluene | | 0.00137 | 0.00275 | 0.00549 | U |
| 1330-20-7 | Xylenes (total) | | 0.00412 | 0.00824 | 0.0165 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03294 | 0.03326 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03294 | 0.03442 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03294 | 0.03175 | 96.4 | 75 - 140 | |
| Toluene-d8 | 0.03294 | 0.03523 | 107 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-088-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-09 | File ID: | 0412309.D |
| Sampled: | 04/10/11 17:05 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 15:48 |
| Solids: | 89.59 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00137 | 0.00274 | 0.00548 | U |
| 100-41-4 | Ethylbenzene | | 0.00137 | 0.00274 | 0.00548 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00137 | 0.00274 | 0.00548 | U |
| 108-88-3 | Toluene | | 0.00137 | 0.00274 | 0.00548 | U |
| 1330-20-7 | Xylenes (total) | | 0.00411 | 0.00822 | 0.0164 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03289 | 0.03231 | 98.2 | 85 - 120 | |
| Dibromofluoromethane | 0.03289 | 0.03382 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03289 | 0.03359 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03289 | 0.03436 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-089-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-08 | File ID: | 0412308.D |
| Sampled: | 04/10/11 16:35 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 15:23 |
| Solids: | 93.65 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00130 | 0.00260 | 0.00520 | U |
| 100-41-4 | Ethylbenzene | | 0.00130 | 0.00260 | 0.00520 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00130 | 0.00260 | 0.00520 | U |
| 108-88-3 | Toluene | | 0.00130 | 0.00260 | 0.00520 | U |
| 1330-20-7 | Xylenes (total) | | 0.00390 | 0.00781 | 0.0156 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03122 | 0.03155 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03122 | 0.03208 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03122 | 0.03164 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03122 | 0.03228 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-090-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-07 | File ID: | 0412307.D |
| Sampled: | 04/10/11 16:15 | Prepared: | 04/14/11 00:00 | Analyzed: | 04/14/11 14:58 |
| Solids: | 93.22 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00126 | 0.00252 | 0.00503 | U |
| 100-41-4 | Ethylbenzene | | 0.00126 | 0.00252 | 0.00503 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00126 | 0.00252 | 0.00503 | U |
| 108-88-3 | Toluene | | 0.00126 | 0.00252 | 0.00503 | U |
| 1330-20-7 | Xylenes (total) | | 0.00377 | 0.00755 | 0.0151 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03019 | 0.02969 | 98.4 | 85 - 120 | |
| Dibromofluoromethane | 0.03019 | 0.03114 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03019 | 0.03130 | 104 | 75 - 140 | |
| Toluene-d8 | 0.03019 | 0.03222 | 107 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-095-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104159-01 | File ID: | 0415901.D |
| Sampled: | 04/12/11 08:00 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 12:44 |
| Solids: | 91.10 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00155 | 0.00309 | 0.00618 | U |
| 100-41-4 | Ethylbenzene | | 0.000927 | 0.00309 | 0.00618 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00155 | 0.00309 | 0.00618 | U |
| 108-88-3 | Toluene | | 0.00106 | 0.00309 | 0.00618 | U |
| 1330-20-7 | Xylenes (total) | | 0.00464 | 0.00927 | 0.0185 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03709 | 0.03742 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03709 | 0.03884 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03709 | 0.03746 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03709 | 0.03842 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-096-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104159-02 | File ID: | 0415902.D |
| Sampled: | 04/12/11 08:35 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 13:09 |
| Solids: | 90.85 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00140 | 0.00281 | 0.00562 | U |
| 100-41-4 | Ethylbenzene | | 0.000842 | 0.00281 | 0.00562 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00140 | 0.00281 | 0.00562 | U |
| 108-88-3 | Toluene | | 0.000966 | 0.00281 | 0.00562 | U |
| 1330-20-7 | Xylenes (total) | | 0.00421 | 0.00842 | 0.0168 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03370 | 0.03326 | 98.7 | 85 - 120 | |
| Dibromofluoromethane | 0.03370 | 0.03438 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03370 | 0.03330 | 98.8 | 75 - 140 | |
| Toluene-d8 | 0.03370 | 0.03407 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-097-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104159-03 | File ID: | 0415903.D |
| Sampled: | 04/12/11 09:20 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 13:33 |
| Solids: | 83.61 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00160 | 0.00320 | 0.00640 | U |
| 100-41-4 | Ethylbenzene | | 0.000960 | 0.00320 | 0.00640 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00160 | 0.00320 | 0.00640 | U |
| 108-88-3 | Toluene | | 0.00110 | 0.00320 | 0.00640 | U |
| 1330-20-7 | Xylenes (total) | | 0.00480 | 0.00960 | 0.0192 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03842 | 0.03930 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03842 | 0.04058 | 106 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03842 | 0.03854 | 100 | 75 - 140 | |
| Toluene-d8 | 0.03842 | 0.03983 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-098-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104159-04 | File ID: | 0415904.D |
| Sampled: | 04/12/11 09:25 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 13:58 |
| Solids: | 86.78 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00132 | 0.00264 | 0.00529 | U |
| 100-41-4 | Ethylbenzene | | 0.000793 | 0.00264 | 0.00529 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00132 | 0.00264 | 0.00529 | U |
| 108-88-3 | Toluene | | 0.000909 | 0.00264 | 0.00529 | U |
| 1330-20-7 | Xylenes (total) | | 0.00396 | 0.00793 | 0.0159 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03172 | 0.03303 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03172 | 0.03236 | 102 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03172 | 0.03303 | 104 | 75 - 140 | |
| Toluene-d8 | 0.03172 | 0.03288 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-MW-053**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Ground Water | Laboratory ID: | 1104123-05 | File ID: | 0412305.D |
| Sampled: | 04/10/11 14:30 | Prepared: | 04/15/11 14:35 | Analyzed: | 04/18/11 12:32 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D14024 Sequence: 1D10908 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0481 | 0.0962 | 0.192 | U |
| 208-96-8 | Acenaphthylene | | 0.0481 | 0.0962 | 0.192 | U |
| 120-12-7 | Anthracene | 0.0608 | 0.0481 | 0.0962 | 0.192 | I |
| 56-55-3 | Benzo(a)anthracene | 0.242 | 0.0481 | 0.0962 | 0.192 | |
| 50-32-8 | Benzo(a)pyrene | | 0.0481 | 0.0962 | 0.192 | U |
| 205-99-2 | Benzo(b)fluoranthene | 0.0488 | 0.0481 | 0.0962 | 0.192 | I |
| 191-24-2 | Benzo(g,h,i)perylene | 0.0506 | 0.0481 | 0.0962 | 0.192 | I |
| 207-08-9 | Benzo(k)fluoranthene | 0.0567 | 0.0481 | 0.0962 | 0.192 | I |
| 218-01-9 | Chrysene | 0.0543 | 0.0481 | 0.0962 | 0.192 | I |
| 53-70-3 | Dibenz(a,h)anthracene | 0.0554 | 0.0481 | 0.0962 | 0.192 | I |
| 206-44-0 | Fluoranthene | 0.0564 | 0.0481 | 0.0962 | 0.192 | I |
| 86-73-7 | Fluorene | | 0.0481 | 0.0962 | 0.192 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.0507 | 0.0481 | 0.0962 | 0.192 | I |
| 90-12-0 | 1-Methylnaphthalene | | 0.0481 | 0.0962 | 0.192 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0481 | 0.0962 | 0.192 | U |
| 91-20-3 | Naphthalene | | 0.0481 | 0.0962 | 0.192 | U |
| 85-01-8 | Phenanthrene | 0.0713 | 0.0481 | 0.0962 | 0.192 | I |
| 129-00-0 | Pyrene | 0.0550 | 0.0481 | 0.0962 | 0.192 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 48.08 | 34.35 | 71.4 | 34 - 167 | |
| Terphenyl-d14 | 48.08 | 16.79 | 34.9 | 34 - 167 | |

# ANALYSIS DATA SHEET

**IDW Drums**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104159-06 | File ID: | 0415906R.D |
| Sampled: | 04/12/11 10:00 | Prepared: | 04/15/11 14:35 | Analyzed: | 04/24/11 11:24 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D14024 Sequence: 1D11510 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0463 | 0.0926 | 0.185 | U |
| 208-96-8 | Acenaphthylene | | 0.0463 | 0.0926 | 0.185 | U |
| 120-12-7 | Anthracene | | 0.0463 | 0.0926 | 0.185 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0463 | 0.0926 | 0.185 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0463 | 0.0926 | 0.185 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0463 | 0.0926 | 0.185 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0463 | 0.0926 | 0.185 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0463 | 0.0926 | 0.185 | U |
| 218-01-9 | Chrysene | | 0.0463 | 0.0926 | 0.185 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0463 | 0.0926 | 0.185 | U |
| 206-44-0 | Fluoranthene | | 0.0463 | 0.0926 | 0.185 | U |
| 86-73-7 | Fluorene | | 0.0463 | 0.0926 | 0.185 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0463 | 0.0926 | 0.185 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0463 | 0.0926 | 0.185 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0463 | 0.0926 | 0.185 | U |
| 91-20-3 | Naphthalene | 0.0503 | 0.0463 | 0.0926 | 0.185 | I |
| 85-01-8 | Phenanthrene | | 0.0463 | 0.0926 | 0.185 | U |
| 129-00-0 | Pyrene | | 0.0463 | 0.0926 | 0.185 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 46.30 | 28.94 | 62.5 | 34 - 167 | |
| Terphenyl-d14 | 46.30 | 11.24 | 24.3 | 34 - 167 | * |

# ANALYSIS DATA SHEET

**05-SS-029-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-06 | File ID: | 0412306.D |
| Sampled: | 04/10/11 15:50 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 12:36 |
| Solids: | 92.35 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11513 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00172 | 0.00342 | 0.00686 | U |
| 208-96-8 | Acenaphthylene | | 0.00172 | 0.00342 | 0.00686 | U |
| 120-12-7 | Anthracene | | 0.00172 | 0.00342 | 0.00686 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00172 | 0.00342 | 0.00686 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00172 | 0.00342 | 0.00686 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00172 | 0.00342 | 0.00686 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00172 | 0.00342 | 0.00686 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00172 | 0.00342 | 0.00686 | U |
| 218-01-9 | Chrysene | | 0.00172 | 0.00342 | 0.00686 | U |
| 53-70-3 | Dibenz(a,h)anthracene | 0.00220 | 0.00172 | 0.00342 | 0.00686 | I |
| 206-44-0 | Fluoranthene | | 0.00172 | 0.00342 | 0.00686 | U |
| 86-73-7 | Fluorene | | 0.00172 | 0.00342 | 0.00686 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00174 | 0.00172 | 0.00342 | 0.00686 | I |
| 90-12-0 | 1-Methylnaphthalene | | 0.00172 | 0.00342 | 0.00686 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00172 | 0.00342 | 0.00686 | U |
| 91-20-3 | Naphthalene | | 0.00172 | 0.00342 | 0.00686 | U |
| 85-01-8 | Phenanthrene | | 0.00172 | 0.00342 | 0.00686 | U |
| 129-00-0 | Pyrene | | 0.00172 | 0.00342 | 0.00686 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.427 | 2.670 | 77.9 | 14 - 129 | |
| Terphenyl-d14 | 3.427 | 3.170 | 92.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-051-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-01 | File ID: | 0412301.D |
| Sampled: | 04/10/11 13:15 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 23:00 |
| Solids: | 84.25 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00194 | 0.00388 | 0.00776 | U |
| 208-96-8 | Acenaphthylene | | 0.00194 | 0.00388 | 0.00776 | U |
| 120-12-7 | Anthracene | | 0.00194 | 0.00388 | 0.00776 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00194 | 0.00388 | 0.00776 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00194 | 0.00388 | 0.00776 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00194 | 0.00388 | 0.00776 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00194 | 0.00388 | 0.00776 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00194 | 0.00388 | 0.00776 | U |
| 218-01-9 | Chrysene | | 0.00194 | 0.00388 | 0.00776 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00194 | 0.00388 | 0.00776 | U |
| 206-44-0 | Fluoranthene | | 0.00194 | 0.00388 | 0.00776 | U |
| 86-73-7 | Fluorene | | 0.00194 | 0.00388 | 0.00776 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00194 | 0.00388 | 0.00776 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00194 | 0.00388 | 0.00776 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00194 | 0.00388 | 0.00776 | U |
| 91-20-3 | Naphthalene | | 0.00194 | 0.00388 | 0.00776 | U |
| 85-01-8 | Phenanthrene | | 0.00194 | 0.00388 | 0.00776 | U |
| 129-00-0 | Pyrene | | 0.00194 | 0.00388 | 0.00776 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.879 | 3.046 | 78.5 | 14 - 129 | |
| Terphenyl-d14 | 3.879 | 3.328 | 85.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-052-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-02 | File ID: | 0412302.D |
| Sampled: | 04/10/11 13:40 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 23:25 |
| Solids: | 85.24 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D18014 | Sequence: 1D11503 | Calibration: | 1112002 | Instrument: MS-BNA4 |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00191 | 0.00381 | 0.00762 | U |
| 208-96-8 | Acenaphthylene | | 0.00191 | 0.00381 | 0.00762 | U |
| 120-12-7 | Anthracene | | 0.00191 | 0.00381 | 0.00762 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00191 | 0.00381 | 0.00762 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00191 | 0.00381 | 0.00762 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00191 | 0.00381 | 0.00762 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00191 | 0.00381 | 0.00762 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00191 | 0.00381 | 0.00762 | U |
| 218-01-9 | Chrysene | | 0.00191 | 0.00381 | 0.00762 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00191 | 0.00381 | 0.00762 | U |
| 206-44-0 | Fluoranthene | | 0.00191 | 0.00381 | 0.00762 | U |
| 86-73-7 | Fluorene | | 0.00191 | 0.00381 | 0.00762 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00191 | 0.00381 | 0.00762 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00191 | 0.00381 | 0.00762 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00191 | 0.00381 | 0.00762 | U |
| 91-20-3 | Naphthalene | | 0.00191 | 0.00381 | 0.00762 | U |
| 85-01-8 | Phenanthrene | | 0.00191 | 0.00381 | 0.00762 | U |
| 129-00-0 | Pyrene | | 0.00191 | 0.00381 | 0.00762 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.809 | 2.812 | 73.8 | 14 - 129 | |
| Terphenyl-d14 | 3.809 | 3.341 | 87.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-053-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-03 | File ID: | 0412303.D |
| Sampled: | 04/10/11 13:55 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 15:55 |
| Solids: | 87.23 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11513 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00191 | 0.00382 | 0.00765 | U |
| 208-96-8 | Acenaphthylene | | 0.00191 | 0.00382 | 0.00765 | U |
| 120-12-7 | Anthracene | | 0.00191 | 0.00382 | 0.00765 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00191 | 0.00382 | 0.00765 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00191 | 0.00382 | 0.00765 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00191 | 0.00382 | 0.00765 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00191 | 0.00382 | 0.00765 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00191 | 0.00382 | 0.00765 | U |
| 218-01-9 | Chrysene | | 0.00191 | 0.00382 | 0.00765 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00191 | 0.00382 | 0.00765 | U |
| 206-44-0 | Fluoranthene | | 0.00191 | 0.00382 | 0.00765 | U |
| 86-73-7 | Fluorene | | 0.00191 | 0.00382 | 0.00765 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00191 | 0.00382 | 0.00765 | U |
| 90-12-0 | 1-Methylnaphthalene | 0.331 | 0.00191 | 0.00382 | 0.00765 | |
| 91-57-6 | 2-Methylnaphthalene | 0.353 | 0.00191 | 0.00382 | 0.00765 | |
| 91-20-3 | Naphthalene | 0.0626 | 0.00191 | 0.00382 | 0.00765 | |
| 85-01-8 | Phenanthrene | | 0.00191 | 0.00382 | 0.00765 | U |
| 129-00-0 | Pyrene | | 0.00191 | 0.00382 | 0.00765 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.821 | 3.087 | 80.8 | 14 - 129 | |
| Terphenyl-d14 | 3.821 | 3.148 | 82.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-054-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-04 | File ID: | 0412304.D |
| Sampled: | 04/10/11 15:15 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/23/11 23:51 |
| Solids: | 90.71 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1I12002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00184 | 0.00367 | 0.00735 | U |
| 208-96-8 | Acenaphthylene | | 0.00184 | 0.00367 | 0.00735 | U |
| 120-12-7 | Anthracene | | 0.00184 | 0.00367 | 0.00735 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00184 | 0.00367 | 0.00735 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00184 | 0.00367 | 0.00735 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00184 | 0.00367 | 0.00735 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00184 | 0.00367 | 0.00735 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00184 | 0.00367 | 0.00735 | U |
| 218-01-9 | Chrysene | | 0.00184 | 0.00367 | 0.00735 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00184 | 0.00367 | 0.00735 | U |
| 206-44-0 | Fluoranthene | | 0.00184 | 0.00367 | 0.00735 | U |
| 86-73-7 | Fluorene | | 0.00184 | 0.00367 | 0.00735 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00184 | 0.00367 | 0.00735 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00184 | 0.00367 | 0.00735 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00184 | 0.00367 | 0.00735 | U |
| 91-20-3 | Naphthalene | | 0.00184 | 0.00367 | 0.00735 | U |
| 85-01-8 | Phenanthrene | | 0.00184 | 0.00367 | 0.00735 | U |
| 129-00-0 | Pyrene | | 0.00184 | 0.00367 | 0.00735 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.675 | 2.683 | 73.0 | 14 - 129 | |
| Terphenyl-d14 | 3.675 | 3.166 | 86.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-088-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-09 | File ID: | 0412309.D |
| Sampled: | 04/10/11 17:05 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 14:40 |
| Solids: | 89.59 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11513 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.0466 | 0.00180 | 0.00360 | 0.00720 | |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00360 | 0.00720 | U |
| 120-12-7 | Anthracene | 0.0596 | 0.00180 | 0.00360 | 0.00720 | |
| 56-55-3 | Benzo(a)anthracene | 0.108 | 0.00180 | 0.00360 | 0.00720 | |
| 50-32-8 | Benzo(a)pyrene | 0.0877 | 0.00180 | 0.00360 | 0.00720 | |
| 205-99-2 | Benzo(b)fluoranthene | 0.107 | 0.00180 | 0.00360 | 0.00720 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.0446 | 0.00180 | 0.00360 | 0.00720 | |
| 207-08-9 | Benzo(k)fluoranthene | 0.0450 | 0.00180 | 0.00360 | 0.00720 | |
| 218-01-9 | Chrysene | 0.102 | 0.00180 | 0.00360 | 0.00720 | |
| 53-70-3 | Dibenz(a,h)anthracene | 0.0159 | 0.00180 | 0.00360 | 0.00720 | |
| 206-44-0 | Fluoranthene | 0.245 | 0.00180 | 0.00360 | 0.00720 | |
| 86-73-7 | Fluorene | 0.0269 | 0.00180 | 0.00360 | 0.00720 | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.0392 | 0.00180 | 0.00360 | 0.00720 | |
| 90-12-0 | 1-Methylnaphthalene | 0.00750 | 0.00180 | 0.00360 | 0.00720 | |
| 91-57-6 | 2-Methylnaphthalene | 0.00892 | 0.00180 | 0.00360 | 0.00720 | |
| 91-20-3 | Naphthalene | 0.0214 | 0.00180 | 0.00360 | 0.00720 | |
| 85-01-8 | Phenanthrene | 0.197 | 0.00180 | 0.00360 | 0.00720 | |
| 129-00-0 | Pyrene | 0.191 | 0.00180 | 0.00360 | 0.00720 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.601 | 2.997 | 83.2 | 14 - 129 | |
| Terphenyl-d14 | 3.601 | 3.180 | 88.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-089-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-08 | File ID: | 0412308.D |
| Sampled: | 04/10/11 16:35 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 13:01 |
| Solids: | 93.65 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11513 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00349 | 0.00698 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00349 | 0.00698 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00349 | 0.00698 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00349 | 0.00698 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00349 | 0.00698 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00349 | 0.00698 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00349 | 0.00698 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00349 | 0.00698 | U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00349 | 0.00698 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00349 | 0.00698 | U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00349 | 0.00698 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00349 | 0.00698 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00175 | 0.00349 | 0.00698 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00349 | 0.00698 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00349 | 0.00698 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00349 | 0.00698 | U |
| 85-01-8 | Phenanthrene | | 0.00175 | 0.00349 | 0.00698 | U |
| 129-00-0 | Pyrene | | 0.00175 | 0.00349 | 0.00698 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.490 | 2.873 | 82.3 | 14 - 129 | |
| Terphenyl-d14 | 3.490 | 3.060 | 87.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-090-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-07 | File ID: | 0412307.D |
| Sampled: | 04/10/11 16:15 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 14:16 |
| Solids: | 93.22 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11513 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00173 | 0.00346 | 0.00692 | U |
| 208-96-8 | Acenaphthylene | | 0.00173 | 0.00346 | 0.00692 | U |
| 120-12-7 | Anthracene | | 0.00173 | 0.00346 | 0.00692 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00173 | 0.00346 | 0.00692 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00173 | 0.00346 | 0.00692 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00173 | 0.00346 | 0.00692 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00173 | 0.00346 | 0.00692 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00173 | 0.00346 | 0.00692 | U |
| 218-01-9 | Chrysene | 0.00198 | 0.00173 | 0.00346 | 0.00692 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00173 | 0.00346 | 0.00692 | U |
| 206-44-0 | Fluoranthene | 0.00230 | 0.00173 | 0.00346 | 0.00692 | I |
| 86-73-7 | Fluorene | | 0.00173 | 0.00346 | 0.00692 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00173 | 0.00346 | 0.00692 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00173 | 0.00346 | 0.00692 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00173 | 0.00346 | 0.00692 | U |
| 91-20-3 | Naphthalene | | 0.00173 | 0.00346 | 0.00692 | U |
| 85-01-8 | Phenanthrene | | 0.00173 | 0.00346 | 0.00692 | U |
| 129-00-0 | Pyrene | | 0.00173 | 0.00346 | 0.00692 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.460 | 2.776 | 80.2 | 14 - 129 | |
| Terphenyl-d14 | 3.460 | 3.119 | 90.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-095-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104159-01 | File ID: | 0415901.D |
| Sampled: | 04/12/11 08:00 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 13:26 |
| Solids: | 91.10 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11513 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00182 | 0.00363 | 0.00727 | U |
| 208-96-8 | Acenaphthylene | | 0.00182 | 0.00363 | 0.00727 | U |
| 120-12-7 | Anthracene | | 0.00182 | 0.00363 | 0.00727 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00182 | 0.00363 | 0.00727 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00182 | 0.00363 | 0.00727 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00182 | 0.00363 | 0.00727 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00182 | 0.00363 | 0.00727 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00182 | 0.00363 | 0.00727 | U |
| 218-01-9 | Chrysene | | 0.00182 | 0.00363 | 0.00727 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00182 | 0.00363 | 0.00727 | U |
| 206-44-0 | Fluoranthene | | 0.00182 | 0.00363 | 0.00727 | U |
| 86-73-7 | Fluorene | | 0.00182 | 0.00363 | 0.00727 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00182 | 0.00363 | 0.00727 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00182 | 0.00363 | 0.00727 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00182 | 0.00363 | 0.00727 | U |
| 91-20-3 | Naphthalene | | 0.00182 | 0.00363 | 0.00727 | U |
| 85-01-8 | Phenanthrene | | 0.00182 | 0.00363 | 0.00727 | U |
| 129-00-0 | Pyrene | | 0.00182 | 0.00363 | 0.00727 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.635 | 2.927 | 80.5 | 14 - 129 | |
| Terphenyl-d14 | 3.635 | 3.283 | 90.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-096-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104159-02 | File ID: | 0415902.D |
| Sampled: | 04/12/11 08:35 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 13:51 |
| Solids: | 90.85 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D18014 | Sequence: 1D11513 | Calibration: | 1112002 | Instrument: MS-BNA4 |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00181 | 0.00362 | 0.00725 | U |
| 208-96-8 | Acenaphthylene | | 0.00181 | 0.00362 | 0.00725 | U |
| 120-12-7 | Anthracene | | 0.00181 | 0.00362 | 0.00725 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00181 | 0.00362 | 0.00725 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00181 | 0.00362 | 0.00725 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00181 | 0.00362 | 0.00725 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00181 | 0.00362 | 0.00725 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00181 | 0.00362 | 0.00725 | U |
| 218-01-9 | Chrysene | | 0.00181 | 0.00362 | 0.00725 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00181 | 0.00362 | 0.00725 | U |
| 206-44-0 | Fluoranthene | | 0.00181 | 0.00362 | 0.00725 | U |
| 86-73-7 | Fluorene | | 0.00181 | 0.00362 | 0.00725 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00181 | 0.00362 | 0.00725 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00181 | 0.00362 | 0.00725 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00181 | 0.00362 | 0.00725 | U |
| 91-20-3 | Naphthalene | | 0.00181 | 0.00362 | 0.00725 | U |
| 85-01-8 | Phenanthrene | | 0.00181 | 0.00362 | 0.00725 | U |
| 129-00-0 | Pyrene | | 0.00181 | 0.00362 | 0.00725 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.621 | 2.839 | 78.4 | 14 - 129 | |
| Terphenyl-d14 | 3.621 | 3.255 | 89.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-097-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104159-03 | File ID: | 0415903.D |
| Sampled: | 04/12/11 09:20 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 15:05 |
| Solids: | 83.61 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11513 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00192 | 0.00383 | 0.00767 | U |
| 208-96-8 | Acenaphthylene | | 0.00192 | 0.00383 | 0.00767 | U |
| 120-12-7 | Anthracene | | 0.00192 | 0.00383 | 0.00767 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00192 | 0.00383 | 0.00767 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00192 | 0.00383 | 0.00767 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00192 | 0.00383 | 0.00767 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00192 | 0.00383 | 0.00767 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00192 | 0.00383 | 0.00767 | U |
| 218-01-9 | Chrysene | | 0.00192 | 0.00383 | 0.00767 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00192 | 0.00383 | 0.00767 | U |
| 206-44-0 | Fluoranthene | | 0.00192 | 0.00383 | 0.00767 | U |
| 86-73-7 | Fluorene | | 0.00192 | 0.00383 | 0.00767 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00192 | 0.00383 | 0.00767 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00192 | 0.00383 | 0.00767 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00192 | 0.00383 | 0.00767 | U |
| 91-20-3 | Naphthalene | | 0.00192 | 0.00383 | 0.00767 | U |
| 85-01-8 | Phenanthrene | | 0.00192 | 0.00383 | 0.00767 | U |
| 129-00-0 | Pyrene | | 0.00192 | 0.00383 | 0.00767 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.834 | 2.968 | 77.4 | 14 - 129 | |
| Terphenyl-d14 | 3.834 | 3.145 | 82.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-098-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104159-04 | File ID: | 0415904.D |
| Sampled: | 04/12/11 09:25 | Prepared: | 04/19/11 17:45 | Analyzed: | 04/24/11 15:30 |
| Solids: | 86.78 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D18014 Sequence: 1D11513 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00187 | 0.00374 | 0.00749 | U |
| 208-96-8 | Acenaphthylene | | 0.00187 | 0.00374 | 0.00749 | U |
| 120-12-7 | Anthracene | | 0.00187 | 0.00374 | 0.00749 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00187 | 0.00374 | 0.00749 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00187 | 0.00374 | 0.00749 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00187 | 0.00374 | 0.00749 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00187 | 0.00374 | 0.00749 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00187 | 0.00374 | 0.00749 | U |
| 218-01-9 | Chrysene | | 0.00187 | 0.00374 | 0.00749 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00187 | 0.00374 | 0.00749 | U |
| 206-44-0 | Fluoranthene | | 0.00187 | 0.00374 | 0.00749 | U |
| 86-73-7 | Fluorene | | 0.00187 | 0.00374 | 0.00749 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00187 | 0.00374 | 0.00749 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00187 | 0.00374 | 0.00749 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00187 | 0.00374 | 0.00749 | U |
| 91-20-3 | Naphthalene | | 0.00187 | 0.00374 | 0.00749 | U |
| 85-01-8 | Phenanthrene | | 0.00187 | 0.00374 | 0.00749 | U |
| 129-00-0 | Pyrene | | 0.00187 | 0.00374 | 0.00749 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.741 | 2.984 | 79.8 | 14 - 129 | |
| Terphenyl-d14 | 3.741 | 3.349 | 89.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-MW-053**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Ground Water | Laboratory ID: | 1104123-05 | File ID: | 008F0801.D |
| Sampled: | 04/10/11 14:30 | Prepared: | 04/15/11 12:03 | Analyzed: | 04/17/11 18:37 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D14023 Sequence: 1D10804 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.167 | 0.333 | 0.667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04902 | 0.03670 | 74.9 | 50 - 150 | |
| o-Terphenyl | 0.04902 | 0.03098 | 63.2 | 82 - 142 | * |

# ANALYSIS DATA SHEET

**IDW Drums**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1104159-06 | File ID: | 025F2501.D |
| Sampled: | 04/12/11 10:00 | Prepared: | 04/15/11 12:03 | Analyzed: | 04/18/11 06:38 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1D14023 Sequence: 1D10804 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.189 | 0.378 | 0.756 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05556 | 0.03990 | 71.8 | 50 - 150 | |
| o-Terphenyl | 0.05556 | 0.01008 | 18.1 | 82 - 142 | * |

# ANALYSIS DATA SHEET

**05-SS-029-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-06 | File ID: | 039F3901.D |
| Sampled: | 04/10/11 15:50 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 11:22 |
| Solids: | 92.35 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.8 | 45.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.449 | 2.280 | 66.1 | 50 - 150 | |
| o-Terphenyl | 3.449 | 2.169 | 62.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-051-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-01 | File ID: | 033F3301.D |
| Sampled: | 04/10/11 13:15 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 07:08 |
| Solids: | 84.25 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D16001 | Sequence: 1D11108 | Calibration: | 1104001 | Instrument: GL-GCFID2 |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.8 | 25.6 | 51.2 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.879 | 2.042 | 52.6 | 50 - 150 | |
| o-Terphenyl | 3.879 | 1.986 | 51.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-052-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-02 | File ID: | 036F3601.D |
| Sampled: | 04/10/11 13:40 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 09:15 |
| Solids: | 85.24 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.9 | 25.8 | 51.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.911 | 1.983 | 50.7 | 50 - 150 | |
| o-Terphenyl | 3.911 | 2.273 | 58.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-053-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-03 | File ID: | 037F3701.D |
| Sampled: | 04/10/11 13:55 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 09:57 |
| Solids: | 87.23 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 694 | 12.4 | 24.7 | 49.5 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.746 | 4.253 | 114 | 50 - 150 | |
| o-Terphenyl | 3.746 | 1.906 | 50.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-054-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-04 | File ID: | 038F3801.D |
| Sampled: | 04/10/11 15:15 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 10:39 |
| Solids: | 90.71 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D16001 | Sequence: 1D11108 | Calibration: | 1104001 | Instrument: GL-GCFID2 |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.0 | 23.9 | 47.9 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.626 | 2.404 | 66.3 | 50 - 150 | |
| o-Terphenyl | 3.626 | 2.243 | 61.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-088-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-09 | File ID: | 042F4201.D |
| Sampled: | 04/10/11 17:05 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 13:29 |
| Solids: | 89.59 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 34.0 | 12.1 | 24.2 | 48.5 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.672 | 2.003 | 54.6 | 50 - 150 | |
| o-Terphenyl | 3.672 | 2.010 | 54.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-089-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104123-08 | File ID: | 041F4101.D |
| Sampled: | 04/10/11 16:35 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 12:47 |
| Solids: | 93.65 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D16001 | Sequence: 1D11108 | Calibration: | 1104001 | Instrument: GL-GCFID2 |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 19.8 | 11.2 | 22.4 | 44.9 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.401 | 2.120 | 62.4 | 50 - 150 | |
| o-Terphenyl | 3.401 | 2.061 | 60.6 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-090-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104123-07 | File ID: | 040F4001.D |
| Sampled: | 04/10/11 16:15 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 12:04 |
| Solids: | 93.22 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.7 | 23.4 | 46.9 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.552 | 2.272 | 64.0 | 50 - 150 | |
| o-Terphenyl | 3.552 | 2.215 | 62.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-095-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104159-01 | File ID: | 043F4301.D |
| Sampled: | 04/12/11 08:00 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 14:11 |
| Solids: | 91.10 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 28.9 | 12.1 | 24.2 | 48.3 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.659 | 2.097 | 57.3 | 50 - 150 | |
| o-Terphenyl | 3.659 | 2.093 | 57.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-096-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104159-02 | File ID: | 044F4401.D |
| Sampled: | 04/12/11 08:35 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 14:54 |
| Solids: | 90.85 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 23.8 | 11.6 | 23.3 | 46.6 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.528 | 1.968 | 55.8 | 50 - 150 | |
| o-Terphenyl | 3.528 | 1.980 | 56.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-097-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104159-03 | File ID: | 046F4601.D |
| Sampled: | 04/12/11 09:20 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 16:18 |
| Solids: | 83.61 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 39.3 | 13.0 | 26.0 | 51.9 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.934 | 2.567 | 65.2 | 50 - 150 | |
| o-Terphenyl | 3.934 | 2.522 | 64.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-098-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104159-04 | File ID: | 047F4701.D |
| Sampled: | 04/12/11 09:25 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 17:01 |
| Solids: | 86.78 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 25.9 | 12.6 | 25.2 | 50.4 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.816 | 2.544 | 66.7 | 50 - 150 | |
| o-Terphenyl | 3.816 | 2.484 | 65.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-MW-053**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Ground Water | Laboratory ID: | 1104123-05 |
| Sampled: | 04/10/11 14:30 | Received: | 04/12/11 08:45 |
| % Solids: | 0.00 | | |

| CAS NO. | Analyte | Conc. (ug/L) | DL | LOD | LOQ | D.F. | Q | Method | Batch | Analyzed |
|---|---|---|---|---|---|---|---|---|---|---|
| 7439-92-1 | Lead | 127 | 7.50 | 15.0 | 15.0 | 5 | D | SW6010C | 1D19002 | 04/20/11 17:58 |

# APPENDIX C

## SUPPORT DOCUMENTATION

**SDG** CTOJM26_007

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| EDB | UG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/18/2011 | 04/19/2011 | 8 | 1 | 9 |
| OV | MG/KG | 05-SS-088-0406 | 1104123-09 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-029-0204 | 1104123-06 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-051-0204 | 1104123-01 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-052-0204 | 1104123-02 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-054-0204 | 1104123-04 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-089-0406 | 1104123-08 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-090-0204 | 1104123-07 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-095-0204 | 1104159-01 | NM | 04/12/2011 | 04/15/2011 | 04/15/2011 | 3 | 0 | 3 |
| OV | MG/KG | 05-SS-096-0204 | 1104159-02 | NM | 04/12/2011 | 04/15/2011 | 04/15/2011 | 3 | 0 | 3 |
| OV | MG/KG | 05-SS-097-0204 | 1104159-03 | NM | 04/12/2011 | 04/15/2011 | 04/15/2011 | 3 | 0 | 3 |
| OV | MG/KG | 05-SS-098-0204 | 1104159-04 | NM | 04/12/2011 | 04/15/2011 | 04/15/2011 | 3 | 0 | 3 |
| OV | MG/KG | 05-SS-053-0002 | 1104123-03 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | UG/L | Trip Blank #9474 | 1104159-05 | NM | 04/12/2011 | 04/25/2011 | 04/25/2011 | 13 | 0 | 13 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | UG/L | IDW Drums | 1104159-06RE1 | NM | 04/12/2011 | 04/26/2011 | 04/26/2011 | 14 | 0 | 14 |
| OV | UG/L | Trip Blank 9479 | 1104123-10 | NM | 04/10/2011 | 04/21/2011 | 04/21/2011 | 11 | 0 | 11 |
| OV | UG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/21/2011 | 04/21/2011 | 11 | 0 | 11 |
| SIM | MG/KG | 05-SS-098-0204 | 1104159-04 | SUR | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-098-0204 | 1104159-04 | NM | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-097-0204 | 1104159-03 | SUR | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-089-0406 | 1104123-08 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-097-0204 | 1104159-03 | NM | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-090-0204 | 1104123-07 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-096-0204 | 1104159-02 | NM | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-052-0204 | 1104123-02 | SUR | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-095-0204 | 1104159-01 | SUR | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-095-0204 | 1104159-01 | NM | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-090-0204 | 1104123-07 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-096-0204 | 1104159-02 | SUR | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-029-0204 | 1104123-06 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-089-0406 | 1104123-08 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-088-0406 | 1104123-09 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-088-0406 | 1104123-09 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-054-0204 | 1104123-04 | SUR | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-054-0204 | 1104123-04 | NM | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-053-0002 | 1104123-03 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-052-0204 | 1104123-02 | NM | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-051-0204 | 1104123-01 | SUR | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-053-0002 | 1104123-03 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-051-0204 | 1104123-01 | NM | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-029-0204 | 1104123-06 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | UG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/15/2011 | 04/18/2011 | 5 | 3 | 8 |
| SIM | UG/L | 05-MW-053 | 1104123-05 | SUR | 04/10/2011 | 04/15/2011 | 04/18/2011 | 5 | 3 | 8 |
| SIM | UG/L | IDW Drums | 1104159-06 | SUR | 04/12/2011 | 04/15/2011 | 04/24/2011 | 3 | 9 | 12 |
| SIM | UG/L | IDW Drums | 1104159-06 | NM | 04/12/2011 | 04/15/2011 | 04/24/2011 | 3 | 9 | 12 |
| TPH | MG/KG | 05-SS-098-0204 | 1104159-04 | NM | 04/12/2011 | 04/19/2011 | 04/20/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-029-0204 | 1104123-06 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-097-0204 | 1104159-03 | NM | 04/12/2011 | 04/19/2011 | 04/20/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-096-0204 | 1104159-02 | NM | 04/12/2011 | 04/19/2011 | 04/20/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-095-0204 | 1104159-01 | NM | 04/12/2011 | 04/19/2011 | 04/20/2011 | 7 | 1 | 8 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-090-0204 | 1104123-07 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-089-0406 | 1104123-08 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-088-0406 | 1104123-09 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-054-0204 | 1104123-04 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-053-0002 | 1104123-03 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-052-0204 | 1104123-02 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-051-0204 | 1104123-01 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/L | IDW Drums | 1104159-06 | NM | 04/12/2011 | 04/15/2011 | 04/18/2011 | 3 | 3 | 6 |
| TPH | MG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/15/2011 | 04/17/2011 | 5 | 2 | 7 |

**SDG** CTOJM26_007

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| M | UG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| EDB | UG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/18/2011 | 04/19/2011 | 8 | 1 | 9 |
| OV | MG/KG | 05-SS-088-0406 | 1104123-09 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-098-0204 | 1104159-04 | NM | 04/12/2011 | 04/15/2011 | 04/15/2011 | 3 | 0 | 3 |
| OV | MG/KG | 05-SS-097-0204 | 1104159-03 | NM | 04/12/2011 | 04/15/2011 | 04/15/2011 | 3 | 0 | 3 |
| OV | MG/KG | 05-SS-096-0204 | 1104159-02 | NM | 04/12/2011 | 04/15/2011 | 04/15/2011 | 3 | 0 | 3 |
| OV | MG/KG | 05-SS-095-0204 | 1104159-01 | NM | 04/12/2011 | 04/15/2011 | 04/15/2011 | 3 | 0 | 3 |
| OV | MG/KG | 05-SS-089-0406 | 1104123-08 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-054-0204 | 1104123-04 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-053-0002 | 1104123-03 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-052-0204 | 1104123-02 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-051-0204 | 1104123-01 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-029-0204 | 1104123-06 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-090-0204 | 1104123-07 | NM | 04/10/2011 | 04/14/2011 | 04/14/2011 | 4 | 0 | 4 |
| OV | UG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/21/2011 | 04/21/2011 | 11 | 0 | 11 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | UG/L | Trip Blank 9479 | 1104123-10 | NM | 04/10/2011 | 04/21/2011 | 04/21/2011 | 11 | 0 | 11 |
| OV | UG/L | IDW Drums | 1104159-06RE1 | NM | 04/12/2011 | 04/26/2011 | 04/26/2011 | 14 | 0 | 14 |
| OV | UG/L | Trip Blank #9474 | 1104159-05 | NM | 04/12/2011 | 04/25/2011 | 04/25/2011 | 13 | 0 | 13 |
| SIM | MG/KG | 05-SS-088-0406 | 1104123-09 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-029-0204 | 1104123-06 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-029-0204 | 1104123-06 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-051-0204 | 1104123-01 | NM | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-051-0204 | 1104123-01 | SUR | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-052-0204 | 1104123-02 | NM | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-052-0204 | 1104123-02 | SUR | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-053-0002 | 1104123-03 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-053-0002 | 1104123-03 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-054-0204 | 1104123-04 | NM | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-054-0204 | 1104123-04 | SUR | 04/10/2011 | 04/19/2011 | 04/23/2011 | 9 | 4 | 13 |
| SIM | MG/KG | 05-SS-089-0406 | 1104123-08 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-089-0406 | 1104123-08 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-090-0204 | 1104123-07 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | MG/KG | 05-SS-090-0204 | 1104123-07 | SUR | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-095-0204 | 1104159-01 | NM | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-095-0204 | 1104159-01 | SUR | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-096-0204 | 1104159-02 | NM | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-096-0204 | 1104159-02 | SUR | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-097-0204 | 1104159-03 | NM | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-097-0204 | 1104159-03 | SUR | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-098-0204 | 1104159-04 | NM | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-098-0204 | 1104159-04 | SUR | 04/12/2011 | 04/19/2011 | 04/24/2011 | 7 | 5 | 12 |
| SIM | MG/KG | 05-SS-088-0406 | 1104123-09 | NM | 04/10/2011 | 04/19/2011 | 04/24/2011 | 9 | 5 | 14 |
| SIM | UG/L | IDW Drums | 1104159-06 | NM | 04/12/2011 | 04/15/2011 | 04/24/2011 | 3 | 9 | 12 |
| SIM | UG/L | IDW Drums | 1104159-06 | SUR | 04/12/2011 | 04/15/2011 | 04/24/2011 | 3 | 9 | 12 |
| SIM | UG/L | 05-MW-053 | 1104123-05 | SUR | 04/10/2011 | 04/15/2011 | 04/18/2011 | 5 | 3 | 8 |
| SIM | UG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/15/2011 | 04/18/2011 | 5 | 3 | 8 |
| TPH | MG/KG | 05-SS-088-0406 | 1104123-09 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-098-0204 | 1104159-04 | NM | 04/12/2011 | 04/19/2011 | 04/20/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-097-0204 | 1104159-03 | NM | 04/12/2011 | 04/19/2011 | 04/20/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-096-0204 | 1104159-02 | NM | 04/12/2011 | 04/19/2011 | 04/20/2011 | 7 | 1 | 8 |
| TPH | MG/KG | 05-SS-095-0204 | 1104159-01 | NM | 04/12/2011 | 04/19/2011 | 04/20/2011 | 7 | 1 | 8 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SS-029-0204 | 1104123-06 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-089-0406 | 1104123-08 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-054-0204 | 1104123-04 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-053-0002 | 1104123-03 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-052-0204 | 1104123-02 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-051-0204 | 1104123-01 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/KG | 05-SS-090-0204 | 1104123-07 | NM | 04/10/2011 | 04/19/2011 | 04/20/2011 | 9 | 1 | 10 |
| TPH | MG/L | IDW Drums | 1104159-06 | NM | 04/12/2011 | 04/15/2011 | 04/18/2011 | 3 | 3 | 6 |
| TPH | MG/L | 05-MW-053 | 1104123-05 | NM | 04/10/2011 | 04/15/2011 | 04/17/2011 | 5 | 2 | 7 |

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER 2784 PAGE 1 OF 1

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Saufley Field Site 05 | PROJECT MANAGER Geoff Pope | PHONE NUMBER 850-335-9899 | LABORATORY NAME AND CONTACT: EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) M Brock | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850-294-2830 | ADDRESS 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER 8684 5094 5747 | | CITY, STATE Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG, AG, AG, AG, AG, CG
PRESERVATIVE USED: MeOH (soil), H2O, ice, ice, HCl, ice, HCl

| DATE YEAR 2011 | 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 | BTEX | MTBE (soil) | PAH (soil) | TRPH (soil) | TRPH (H2O) | PAH (H2O) | MTBE BTEX (H2O) | | COMMENTS 1104159 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4/12 | 0800 | 05-SS-095-0204 | SB095 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | | | -01 1m+30 |
| | 0835 | 05-SS-096-0204 | SB096 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | | | -02 |
| | 0920 | 05-SS-097-0204 | SB097 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | | | -03 |
| | 0925 | 05-SS-098-0204 | SB098 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | – | – | – | | | -04 |
| | – | Trip Blank # 94174 | – | – | – | QC | G | 2 | ✓ | – | – | ✓ | – | – | | | -05 20th |
| | 1000 | IDW Drums | IDW | – | – | W | C | 6 | – | – | – | ✓ | ✓ | ✓ | | | -06 6m |

1 cooler
Temp Blank

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY M Brock | DATE 4.12.11 | TIME 1030 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY 3.1°C | DATE 4-13-11 | TIME 08:30 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

13

CTOJM26_007 Summ Package

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2799 | PAGE 1 OF 1

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Sanfley Field Site 15 | Geoff Pope | 850 385 9899 | EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M Brock | | M. Brock | 850 294 2830 | 621 Mainstream Dr STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 8684-5094-5633 | | Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG, AG, AG, CG, CG, AG, AG, P
PRESERVATIVE USED: MeOH H2O, ice, ice, HCL, HCL, ice, HCL, HNO3

| | DATE YEAR 2011 | TIME | SAMPLE ID (1104123) | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, QC, ETC.) | COLLECTION METHOD GRAB (G) COMP (C) | No. OF CONTAINERS | BTEX + MTBE | PAH | TRPH | VOCs (H2O) | EDB (H2O) | PAH (H2O) | TRPH (H2O) | Total Pb (H2O) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -01 | 4/10 | 1315 | 05-SS-051-0204 | SB051 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | 1JO+2J+1M |
| -02 | | 1340 | 05-SS-052-0204 | SB052 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -03 | | 1355 | 05-SS-053-0002 | SB053 | 0 | 2 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | HOT! |
| -04 | | 1515 | 05-SS-054-0204 | SB054 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -05 | | 1430 | 05-MW-053 | SB053 | 40' bls | | GW | G | 9 | – | – | – | ✓ | ✓ | ✓ | ✓ | ✓ | |
| -06 | | 1550 | 05-SS-029-0204 | SB029 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | 1JO+2J+1M |
| -07 | | 1615 | 05-SS-090-0204 | SB090 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -08 | | 1635 | 05-SS-089-0406 | SB089 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -09 | | 1705 | 05-SS-088-0406 | SB088 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | |
| -10 | | – | Trip Blank 9479 | – | – | | QC | G | 2 | ✓ | – | – | | | | | | JJH Temp Blank in 2 coolers |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY: M Brock | 4.11.11 | 7AS | 1. RECEIVED BY | | |
| 2. RELINQUISHED BY | | | 2. RECEIVED BY | | |
| 3. RELINQUISHED BY | | | 3. RECEIVED BY: Reginald Talley Reginald Talley 3.1 °C | 4.12.11 | 0845 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
The surrogates Bromofluorobenzene, Dibromofluoromethane, and 1,2-Dichloroethane-d4 exceeded criteria with a positive bias in sample 1104123-03. No positive results were detected in the sample.

The continuing calibration verifications exceeded criteria in 1D11204-CCV1 with a negative bias for Acrolein and in 1D11710-CCV1 with a positive bias for Methyl t-Butyl Ether.

No additional anomalies or deviations are noted and the proper data qualifiers have

been applied.

**SW8270C:**
The surrogate Terphenyl-d14 exceeded criteria with a negative bias in sample 1104159-06.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW8011:**
The continuing calibration verifications 1D11037-CCV1, -CCV2, and –CCV3 exceeded criteria with a positive bias on column 2 for 1,2-Dibromoethane.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
The surrogate o-Terphenyl exceeded criteria with a negative bias in 1D14023-BLK1, -BS1, -MS2, 1104123-05, and 1104159-06. The surrogate 2-Fluorobiphenyl exceeded the retention time window in 1104123-01 and -02. The result bias due to the retention time shift was determined to be negligible for all affected samples.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**SW6010C:**
No anomalies or deviations are noted.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

**Analytical Report Terms and Qualifiers**

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.1 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.1 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.1 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*****: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J**: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N**: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE**" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Organic Calculations:

**GC/MS Volatiles**

$$\text{Final Concentration} = \frac{\text{On-column(ug/L or ug/Kg)} * \text{Expected Vol/Weight (mL or g)} * \text{Dilution}}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

***Note - Expected Vol/Weight value is found in "Final Vol" column of Preparation Batch Summary.***

**GC/MS Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/uL)} * \text{Final Vol (ml)} * \text{Dilution} *(1000\text{uL/mL})}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g
= ug/L or ug/kg

**GC or LC Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/mL)} * \text{Final Vol (mL)} * \text{Dilution}}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g
= ug/L or ug/kg

# HOLDING TIME SUMMARY
## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-051-0204 | 04/10/11 13:15 | 04/12/11 08:45 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 13:17 | 4.04 | 14.00 | |
| 05-SS-052-0204 | 04/10/11 13:40 | 04/12/11 08:45 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 13:42 | 4.04 | 14.00 | |
| 05-SS-053-0002 | 04/10/11 13:55 | 04/12/11 08:45 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 16:14 | 4.14 | 14.00 | |
| 05-SS-053-0002 | 04/10/11 13:55 | 04/12/11 08:45 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 19:17 | 5.27 | 14.00 | |
| 05-SS-054-0204 | 04/10/11 15:15 | 04/12/11 08:45 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 14:07 | 3.99 | 14.00 | |
| 05-MW-053 | 04/10/11 14:30 | 04/12/11 08:45 | 04/21/11 00:00 | N/A | 14.00 | 04/21/11 10:33 | 10.88 | 14.00 | |
| 05-SS-029-0204 | 04/10/11 15:50 | 04/12/11 08:45 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 14:32 | 3.99 | 14.00 | |
| 05-SS-090-0204 | 04/10/11 16:15 | 04/12/11 08:45 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 14:58 | 3.99 | 14.00 | |
| 05-SS-089-0406 | 04/10/11 16:35 | 04/12/11 08:45 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 15:23 | 3.99 | 14.00 | |
| 05-SS-088-0406 | 04/10/11 17:05 | 04/12/11 08:45 | 04/14/11 00:00 | N/A | 14.00 | 04/14/11 15:48 | 3.99 | 14.00 | |
| Trip Blank 9479 | 04/10/11 00:00 | 04/12/11 08:45 | 04/21/11 00:00 | N/A | 14.00 | 04/21/11 09:42 | 11.40 | 14.00 | |
| 05-SS-095-0204 | 04/12/11 08:00 | 04/13/11 08:30 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 12:44 | 3.24 | 14.00 | |
| 05-SS-096-0204 | 04/12/11 08:35 | 04/13/11 08:30 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 13:09 | 3.23 | 14.00 | |
| 05-SS-097-0204 | 04/12/11 09:20 | 04/13/11 08:30 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 13:33 | 3.22 | 14.00 | |
| 05-SS-098-0204 | 04/12/11 09:25 | 04/13/11 08:30 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 13:58 | 3.23 | 14.00 | |
| Trip Blank #9474 | 04/12/11 00:00 | 04/13/11 08:30 | 04/25/11 00:00 | N/A | 14.00 | 04/25/11 11:40 | 13.49 | 14.00 | |
| IDW Drums | 04/12/11 10:00 | 04/13/11 08:30 | 04/26/11 16:00 | N/A | 14.00 | 04/26/11 18:43 | 14.36 | 14.00 | |

# ANALYSIS DATA SHEET

**Trip Blank 9479**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104123-10 | File ID: | 0412310.D |
| Sampled: | 04/10/11 00:00 | Prepared: | 04/21/11 00:00 | Analyzed: | 04/21/11 09:42 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D21008 Sequence: 1D11204 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 0.312 | 0.250 | 0.500 | 1.00 | I |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 29.05 | 96.8 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 28.81 | 96.0 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.29 | 101 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.08 | 100 | 85 - 120 | |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | | Laboratory ID: | 1D14010-BLK1 | File ID: | 0414BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/14/11 09:35 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D14010 Sequence: 1D10507 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.02968 | 98.9 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03098 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.02901 | 96.7 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03042 | 101 | 85 - 115 | |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D15006 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-095-0204 | 1104159-01 | 04/15/11 00:00 | 4.44 | 5.00 |
| 05-SS-096-0204 | 1104159-02 | 04/15/11 00:00 | 4.90 | 5.00 |
| 05-SS-097-0204 | 1104159-03 | 04/15/11 00:00 | 4.67 | 5.00 |
| 05-SS-098-0204 | 1104159-04 | 04/15/11 00:00 | 5.45 | 5.00 |
| Blank | 1D15006-BLK1 | 04/15/11 00:00 | 5.00 | 5.00 |
| Blank | 1D15006-BLK2 | 04/15/11 00:00 | 5.00 | 5.00 |
| LCS | 1D15006-BS1 | 04/15/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | | Laboratory ID: | 1D15006-BLK1 | File ID: | 0415BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/15/11 11:11 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03133 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03083 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03044 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03114 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D15006-BLK2 | File ID: | 0415BL2.D |
| Sampled: | | Prepared: | | Analyzed: | 04/15/11 11:35 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.0625 | 0.125 | 0.250 | U |
| 100-41-4 | Ethylbenzene | | 0.0375 | 0.125 | 0.250 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.0625 | 0.125 | 0.250 | U |
| 108-88-3 | Toluene | | 0.0430 | 0.125 | 0.250 | U |
| 1330-20-7 | Xylenes (total) | | 0.188 | 0.375 | 0.750 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03066 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03126 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03050 | 102 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03026 | 101 | 85 - 115 | |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D21008 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-053 | 1104123-05 | 04/21/11 00:00 | 5.00 | 5.00 |
| Trip Blank 9479 | 1104123-10 | 04/21/11 00:00 | 5.00 | 5.00 |
| Blank | 1D21008-BLK1 | 04/21/11 00:00 | 5.00 | 5.00 |
| LCS | 1D21008-BS1 | 04/21/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D21008-BLK1 | File ID: | 0421BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/21/11 09:17 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1D21008 Sequence: 1D11204 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 107-02-8 | Acrolein | | 1.20 | 2.50 | 5.00 | Y, U |
| 107-13-1 | Acrylonitrile | | 2.50 | 5.00 | 10.0 | U |
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 75-27-4 | Bromodichloromethane | | 0.250 | 0.500 | 1.00 | U |
| 75-25-2 | Bromoform | | 0.250 | 0.500 | 1.00 | U |
| 74-83-9 | Bromomethane | | 0.500 | 1.00 | 2.00 | U |
| 56-23-5 | Carbon tetrachloride | | 0.250 | 0.500 | 1.00 | U |
| 108-90-7 | Chlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 75-00-3 | Chloroethane | | 0.500 | 1.00 | 2.00 | U |
| 67-66-3 | Chloroform | | 0.250 | 0.500 | 1.00 | U |
| 110-75-8 | 2-Chloroethyl vinyl ether | | 1.25 | 2.50 | 5.00 | U |
| 74-87-3 | Chloromethane | | 0.250 | 0.500 | 1.00 | U |
| 124-48-1 | Dibromochloromethane | | 0.250 | 0.500 | 1.00 | U |
| 106-93-4 | 1,2-Dibromoethane (EDB) | | 0.250 | 0.500 | 1.00 | U |
| 75-34-3 | 1,1-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 107-06-2 | 1,2-Dichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 75-35-4 | 1,1-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-59-2 | cis-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 156-60-5 | trans-1,2-Dichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 78-87-5 | 1,2-Dichloropropane | | 0.250 | 0.500 | 1.00 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | | 0.250 | 0.500 | 1.00 | U |
| NA | 1,3-Dichloropropene (total) | | 0.500 | 1.00 | 2.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | | 0.250 | 0.500 | 1.00 | U |
| 127-18-4 | Tetrachloroethene | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | | 0.250 | 0.500 | 1.00 | U |
| 79-00-5 | 1,1,2-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 71-55-6 | 1,1,1-Trichloroethane | | 0.250 | 0.500 | 1.00 | U |
| 79-01-6 | Trichloroethene | | 0.250 | 0.500 | 1.00 | U |
| 75-01-4 | Vinyl chloride | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.51 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 29.97 | 99.9 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.58 | 102 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.31 | 104 | 85 - 120 | |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D25007 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| Trip Blank #9474 | 1104159-05 | 04/25/11 00:00 | 5.00 | 5.00 |
| Blank | 1D25007-BLK1 | 04/25/11 11:14 | 5.00 | 5.00 |
| LCS | 1D25007-BS1 | 04/25/11 09:59 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D25007-BLK1 | File ID: | 0425BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/25/11 11:14 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1D25007 Sequence: 1D11614 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.25 | 101 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 29.47 | 98.2 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 29.33 | 97.8 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.74 | 106 | 85 - 120 | |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D26026 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| IDW Drums | 1104159-06RE1 | 04/26/11 16:00 | 5.00 | 5.00 |
| Blank | 1D26026-BLK1 | 04/26/11 16:00 | 5.00 | 5.00 |
| LCS | 1D26026-BS1 | 04/26/11 16:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | | Laboratory ID: | 1D26026-BLK1 | File ID: | 0425BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/26/11 18:17 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1D26026 Sequence: 1D11710 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | X, U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.66 | 102 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 30.41 | 101 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.93 | 103 | 70 - 120 | |
| Toluene-d8 | 30.00 | 29.16 | 97.2 | 85 - 120 | |

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08024 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08024-TUN1 | 0208TUN1.D | 02/08/11 16:12 |
| Cal Standard | 1C08024-CAL1 | 0208CAL1.D | 02/08/11 16:35 |
| Cal Standard | 1C08024-CAL2 | 0208CAL2.D | 02/08/11 16:59 |
| Cal Standard | 1C08024-CAL3 | 0208CAL3.D | 02/08/11 17:23 |
| Cal Standard | 1C08024-CAL4 | 0208CAL4.D | 02/08/11 17:47 |
| Cal Standard | 1C08024-CAL5 | 0208CAL5.D | 02/08/11 18:11 |
| Cal Standard | 1C08024-CAL7 | 0208CAL7.D | 02/08/11 18:59 |
| Cal Standard | 1C08024-CAL8 | 0208CAL8.D | 02/08/11 19:23 |
| MS Tune | 1C08024-TUN2 | 0208TUN2.D | 02/09/11 06:45 |
| Cal Standard | 1C08024-CAL6 | 208CAL6A.D | 02/09/11 07:13 |
| Initial Cal Check | 1C08024-ICV1 | 208ICV1A.D | 02/09/11 07:37 |
| MS Tune | 1C08024-TUN3 | 0208TUN3.D | 02/09/11 15:56 |
| Cal Standard | 1C08024-CALH | SEQ-CALH.D | 02/09/11 16:20 |
| Cal Standard | 1C08024-CALI | SEQ-CALI.D | 02/09/11 16:45 |
| Cal Standard | 1C08024-CALJ | SEQ-CALJ.D | 02/09/11 17:09 |
| Cal Standard | 1C08024-CALK | SEQ-CALK.D | 02/09/11 17:33 |
| Cal Standard | 1C08024-CALL | SEQ-CALL.D | 02/09/11 17:56 |
| Cal Standard | 1C08024-CALM | SEQ-CALM.D | 02/09/11 18:20 |
| Cal Standard | 1C08024-CALN | SEQ-CALN.D | 02/09/11 18:44 |
| Cal Standard | 1C08024-CALO | SEQ-CALO.D | 02/09/11 19:08 |
| MS Tune | 1C08024-TUN4 | 0211TUN4.D | 02/11/11 14:35 |
| MS Tune | 1C08024-TUN5 | 0317TUN5.D | 03/17/11 09:51 |
| Cal Standard | 1C08024-CAL9 | 0317CAL1.D | 03/17/11 12:18 |
| Cal Standard | 1C08024-CALA | 0317CAL2.D | 03/17/11 12:43 |
| Cal Standard | 1C08024-CALB | 0317CAL3.D | 03/17/11 13:07 |
| Cal Standard | 1C08024-CALC | 0317CAL4.D | 03/17/11 13:32 |
| Cal Standard | 1C08024-CALD | 0317CAL5.D | 03/17/11 13:57 |
| Cal Standard | 1C08024-CALE | 0317CAL6.D | 03/17/11 14:21 |
| Cal Standard | 1C08024-CALF | 0317CAL7.D | 03/17/11 14:46 |
| Cal Standard | 1C08024-CALG | 0317CAL8.D | 03/17/11 15:11 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN1.D | Injection Date: | 02/08/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 16:12 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 21.5 | PASS |
| 75 | 30 - 60% of 95 | 39.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.17 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 84.4 | PASS |
| 175 | 5 - 9% of 174 | 7.21 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN2.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 06:45 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 23.4 | PASS |
| 75 | 30 - 60% of 95 | 41.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.69 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 82.1 | PASS |
| 175 | 5 - 9% of 174 | 7.04 | PASS |
| 176 | 95 - 101% of 174 | 95 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN3.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 15:56 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN3 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.4 | PASS |
| 75 | 30 - 60% of 95 | 43.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.71 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 63.8 | PASS |
| 175 | 5 - 9% of 174 | 7.5 | PASS |
| 176 | 95 - 101% of 174 | 97.4 | PASS |
| 177 | 5 - 9% of 176 | 6.46 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0211TUN4.D | Injection Date: | 02/11/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 14:35 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN4 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.3 | PASS |
| 75 | 30 - 60% of 95 | 40 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.39 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 86.4 | PASS |
| 175 | 5 - 9% of 174 | 6.88 | PASS |
| 176 | 95 - 101% of 174 | 95.8 | PASS |
| 177 | 5 - 9% of 176 | 6.12 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TUN5.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 09:51 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN5 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.1 | PASS |
| 75 | 30 - 60% of 95 | 46.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.79 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 69.4 | PASS |
| 175 | 5 - 9% of 174 | 7.65 | PASS |
| 176 | 95 - 101% of 174 | 95.3 | PASS |
| 177 | 5 - 9% of 176 | 6.71 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1081001 | | Instrument: | MS-VOA6 | |
| Matrix: | Water | | Calibration Dates: | 2/8/11 16:35 | 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 9.260554E-02 | 28.00847 | 3.792143 | 0.2505724 | | 0.9930411 | 0.99 | |
| Acrolein | 3.068373E-02 | 14.17936 | 3.687375 | 0.266829 | | | 15 | |
| Acrylonitrile | 8.885261E-02 | 18.29246 | 4.637625 | 0.1611173 | 0.9961602 | | 0.995 | |
| Benzene | 1.113159 | 4.608946 | 7.67675 | 4.449891E-02 | | | 15 | |
| Bromobenzene | 0.7164301 | 3.444919 | 12.40125 | 2.882236E-02 | | | 15 | |
| Bromochloromethane | 0.1470133 | 2.818947 | 6.77675 | 6.962075E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7667359 | 3.84088 | 7.868625 | 0.0369654 | | | 15 | |
| Bromodichloromethane | 0.3261603 | 6.110637 | 8.6565 | 0.0395075 | | | 15 | |
| Bromoform | 0.3300278 | 14.56769 | 11.81133 | 3.114238E-02 | | | SPCC (0.1) | |
| Bromomethane | 9.416029E-02 | 13.49252 | 2.841429 | 0.3399494 | | | 15 | |
| Bromofluorobenzene | 0.7951301 | 2.708642 | 12.22875 | 0.0251581 | | | 15 | |
| n-Butylbenzene | 2.759967 | 3.753642 | 13.82862 | 1.990092E-02 | | | 15 | |
| 2-Butanone | 0.1620167 | 9.544266 | 6.227 | 6.194136E-02 | | | 15 | |
| sec-Butylbenzene | 3.285152 | 4.35073 | 13.29013 | 3.345705E-02 | | | 15 | |
| tert-Butylbenzene | 2.145432 | 3.707538 | 13.05663 | 2.013395E-02 | | | 15 | |
| Carbon disulfide | 0.7939658 | 17.02013 | 4.8035 | 0.1982975 | 0.9975385 | | 0.995 | |
| Carbon tetrachloride | 0.3144458 | 8.98804 | 7.644625 | 5.435293E-02 | | | 15 | |
| Chlorobenzene | 1.859646 | 6.752518 | 11.08463 | 2.703025E-02 | | | SPCC (0.3) | |
| Chloroethane | 8.354599E-02 | 6.438411 | 2.97925 | 0.3520969 | | | 15 | |
| Chloroform | 0.4852062 | 3.430147 | 6.7485 | 5.313365E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.17477 | 3.894887 | 9.0105 | 4.037457E-02 | | | 15 | |
| Chloromethane | 0.3749535 | 3.973692 | 2.239125 | 0.4681154 | | | SPCC (0.1) | |
| 1-Chlorohexane | 2.070736 | 5.11712 | 11.051 | 3.853776E-02 | | | 15 | |
| 2-Chlorotoluene | 2.109323 | 4.700997 | 12.6225 | 3.341376E-02 | | | 15 | |
| 4-Chlorotoluene | 2.329282 | 4.243641 | 12.68525 | 2.421974E-02 | | | 15 | |
| Cyclohexane | 0.685955 | 5.186082 | 7.5735 | 5.633159E-02 | | | 15 | |
| Dibromochloromethane | 0.5441809 | 14.16857 | 10.3225 | 3.125264E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1110578 | 4.56858 | 14.43113 | 0.0227997 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5250303 | 8.57485 | 10.53375 | 2.690444E-02 | | | 15 | |
| Dibromomethane | 0.172495 | 3.274856 | 8.595125 | 3.800596E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.192622 | 3.865282 | 13.789 | 1.366507E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.301676 | 2.74033 | 13.3795 | 3.011168E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.315839 | 3.393764 | 13.47213 | 2.224884E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.2743014 | 10.74781 | 2.016625 | 0.5619011 | | | 15 | |
| 1,1-Dichloroethane | 0.586753 | 4.750245 | 5.793375 | 7.525912E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.2934489 | 4.123627 | 7.505875 | 5.038248E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2034482 | 14.48541 | 4.277667 | 0.1728932 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3168749 | 2.657418 | 6.4965 | 8.574096E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.283059 | 5.687211 | 5.419625 | 8.226152E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2999669 | 3.809693 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.3682027 | 2.627754 | 8.4795 | 4.454179E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8250139 | 6.792829 | 10.06175 | 0.0225482 | | | 15 | |
| 2,2-Dichloropropane | 0.3408366 | 5.440234 | 6.602125 | 6.320189E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.386876 | 5.080917 | 7.524375 | 0.0579442 | | | 15 | |
| cis-1,3-Dichloropropene | 0.441167 | 3.859299 | 9.22575 | 3.273881E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7537714 | 6.572131 | 9.69775 | 2.998173E-02 | | | 15 | |
| Diisopropyl Ether | 1.648527 | 3.427531 | 6.164375 | 8.144213E-02 | | | 15 | |
| Ethylbenzene | 3.20803 | 9.080474 | 11.2305 | 3.248409E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 1.014941 | 4.802987 | 6.624375 | 5.856448E-02 | | | 15 | |
| Ethyl Methacrylate | 0.8111924 | 7.03362 | 9.88475 | 3.023834E-02 | | | 15 | |
| Hexachlorobutadiene | 0.4736085 | 5.501745 | 15.78825 | 2.462656E-02 | | | 15 | |
| 2-Hexanone | 0.5814636 | 8.204247 | 9.98775 | 2.484454E-02 | | | 15 | |
| Iodomethane | 0.3021595 | 14.1237 | 4.468714 | 0.194976 | | | 15 | |
| Isopropylbenzene | 2.472317 | 8.225239 | 12.12925 | 2.846195E-02 | | | 15 | |
| p-Isopropyltoluene | 2.330942 | 4.564871 | 13.4265 | 0.02919 | | | 15 | |
| Methylene chloride | 0.3823591 | 43.34252 | 4.754375 | 0.1602236 | 0.9983757 | | 0.995 | |
| Methyl Acetate | 0.2345594 | 13.01771 | 4.628714 | 0.1631094 | | | 15 | |
| Methylcyclohexane | 0.5128412 | 4.32501 | 8.80775 | 0.0356778 | | | 15 | |
| Naphthalene | 1.602647 | 6.275391 | 15.66025 | 1.983775E-02 | | | 15 | |
| Methyl Methacrylate | 0.471708 | 2.883842 | 7.5735 | 5.633159E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.3518691 | 8.076643 | 9.140625 | 1.978248E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.6002451 | 4.891206 | 5.423375 | 0.1227064 | | | 15 | |
| n-Propylbenzene | 3.803681 | 4.930978 | 12.5375 | 2.980661E-02 | | | 15 | |
| Styrene | 1.92732 | 6.721793 | 11.704 | 2.493567E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1081001 | Instrument: | MS-VOA6 | |
| Matrix: | Water | Calibration Dates: | 2/8/11_16:35 | 3/17/11_15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6908364 | 4.258784 | 12.05575 | 3.119017E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6333042 | 8.281663 | 11.1275 | 3.464365E-02 | | | 15 | |
| tert-Butyl alcohol | 2.671035E-02 | 9.966665 | 4.427375 | 0.2216083 | | | 15 | |
| Tetrachloroethene | 0.6244481 | 8.506563 | 10.43312 | 3.100488E-02 | | | 15 | |
| Toluene | 1.598242 | 4.627079 | 9.70025 | 4.291451E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.7016011 | 4.889794 | 15.94525 | 2.154844E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.7933826 | 3.727781 | 15.508 | 1.845566E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.468124 | 6.206816 | 9.8525 | 3.322686E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3447116 | 5.271122 | 7.3065 | 4.409785E-02 | | | 15 | |
| Tetrahydrofuran | 0.125175 | 32.67256 | 6.962375 | 9.085995E-02 | 0.9977438 | | 0.995 | |
| Trichloroethene | 0.308656 | 4.617016 | 8.43125 | 5.007405E-02 | | | 15 | |
| Trichlorofluoromethane | 0.4287223 | 6.644425 | 3.48675 | 0.268437 | | | 15 | |
| 1,2,3-Trichloropropane | 0.141114 | 8.142237 | 12.1785 | 2.715286E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.27177 | 3.75346 | 12.7145 | 2.609472E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 2.273427 | 4.81283 | 13.08825 | 1.976355E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2574515 | 8.290995 | 4.35 | 0.1908188 | | | 15 | |
| Vinyl chloride | 0.1888258 | 14.37893 | 2.38775 | 0.3384152 | | | CCC (20) | |
| m,p-Xylene | 2.321142 | 4.033096 | 11.34387 | 3.895987E-02 | | | 15 | |
| o-Xylene | 2.395421 | 7.925602 | 11.73375 | 4.033886E-02 | | | 15 | |
| Vinyl acetate | 0.44353 | 3.427564 | 5.86575 | 0.0758661 | | | 15 | |
| Xylenes (total) | 2.345902 | 4.444014 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.2924952 | 1.275439 | 6.909375 | 4.408995E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 5.404713E-02 | 3.185261 | 7.40225 | 6.524669E-02 | | | 15 | |
| Toluene-d8 | 2.103453 | 1.736151 | 9.61275 | 2.403928E-02 | | | 15 | |
| tert-Amyl alcohol | 2.611649E-02 | 4.492563 | 7.122 | 5.407818E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.8849963 | 4.245319 | 8.745 | 4.184207E-02 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 208ICV1A.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1C08024 | Injection Date: | 02/09/11 |
| Lab Sample ID: | 1C08024-ICV1 | Injection Time: | 07:37 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 104.0 | 1.113159 | 1.157594 | | 4.0 | 20 |
| Ethylbenzene | A | 100.0 | 104.9 | 3.20803 | 3.364976 | | 4.9 | 20 |
| Methyl t-Butyl Ether | A | 200.0 | 214.0 | 0.6002451 | 0.6421448 | | 7.0 | 20 |
| Toluene | A | 100.0 | 104.5 | 1.598242 | 1.670356 | | 4.5 | 20 |
| Xylenes (total) | A | 300.0 | 315.0 | 2.345902 | 2.462529 | | 5.0 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.76 | 0.7951301 | 0.8154046 | | 2.5 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.19 | 0.2924952 | 0.2943467 | | 0.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 32.03 | 5.404713E-02 | 5.770697E-02 | | 6.8 | 20 |
| Toluene-d8 | A | 30.00 | 30.25 | 2.103453 | 2.120858 | | 0.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10507 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10507-TUN1 | 0414TUN1.D | 04/14/11 07:22 |
| Calibration Check | 1D10507-CCV1 | 0414CCV1.D | 04/14/11 07:47 |
| LCS | 1D14010-BS1 | 0414LS1.D | 04/14/11 08:22 |
| Blank | 1D14010-BLK1 | 0414BL1.D | 04/14/11 09:35 |
| 05-SS-051-0204 | 1104123-01 | 0412301.D | 04/14/11 13:17 |
| 05-SS-052-0204 | 1104123-02 | 0412302.D | 04/14/11 13:42 |
| 05-SS-054-0204 | 1104123-04 | 0412304.D | 04/14/11 14:07 |
| 05-SS-029-0204 | 1104123-06 | 0412306.D | 04/14/11 14:32 |
| 05-SS-090-0204 | 1104123-07 | 0412307.D | 04/14/11 14:58 |
| 05-SS-089-0406 | 1104123-08 | 0412308.D | 04/14/11 15:23 |
| 05-SS-088-0406 | 1104123-09 | 0412309.D | 04/14/11 15:48 |
| 05-SS-053-0002 | 1104123-03 | 0412303.D | 04/14/11 16:14 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0414TUN1.D | Injection Date: | 04/14/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 07:22 |
| Sequence: | 1D10507 | Lab Sample ID: | 1D10507-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 20.3 | PASS |
| 75 | 30 - 60% of 95 | 41.1 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 5.91 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 98.5 | PASS |
| 175 | 5 - 9% of 174 | 7.3 | PASS |
| 176 | 95 - 101% of 174 | 97 | PASS |
| 177 | 5 - 9% of 176 | 6.01 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0414CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D10507 | Injection Date: | 04/14/11 |
| Lab Sample ID: | 1D10507-CCV1 | Injection Time: | 07:47 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 87.21 | 1.113159 | 0.9707839 | | -12.8 | 20 |
| Ethylbenzene | A | 100.0 | 102.6 | 3.20803 | 3.293292 | | 2.7 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 95.36 | 0.6002451 | 0.5724094 | | -4.6 | 20 |
| Toluene | A | 100.0 | 96.76 | 1.598242 | 1.546467 | | -3.2 | 20 |
| Xylenes (total) | A | 300.0 | 307.6 | 2.345902 | 2.405509 | | 2.5 | 20 |
| Bromofluorobenzene | A | 30.00 | 34.14 | 0.7951301 | 0.9049523 | | 13.8 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.79 | 0.2924952 | 0.3002403 | | 2.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.48 | 5.404713E-02 | 5.491416E-02 | | 1.6 | 20 |
| Toluene-d8 | A | 30.00 | 33.89 | 2.103453 | 2.376196 | | 13.0 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10601 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10601-TUN1 | 0415TUN1.D | 04/15/11 08:58 |
| Calibration Check | 1D10601-CCV1 | 0415CCV1.D | 04/15/11 09:22 |
| LCS | 1D15006-BS1 | 0415LS1.D | 04/15/11 09:57 |
| Blank | 1D15006-BLK1 | 0415BL1.D | 04/15/11 11:11 |
| Blank | 1D15006-BLK2 | 0415BL2.D | 04/15/11 11:35 |
| 05-SS-095-0204 | 1104159-01 | 0415901.D | 04/15/11 12:44 |
| 05-SS-096-0204 | 1104159-02 | 0415902.D | 04/15/11 13:09 |
| 05-SS-097-0204 | 1104159-03 | 0415903.D | 04/15/11 13:33 |
| 05-SS-098-0204 | 1104159-04 | 0415904.D | 04/15/11 13:58 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0415TUN1.D | Injection Date: | 04/15/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 08:58 |
| Sequence: | 1D10601 | Lab Sample ID: | 1D10601-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 25.9 | PASS |
| 75 | 30 - 60% of 95 | 47.3 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.63 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 77.4 | PASS |
| 175 | 5 - 9% of 174 | 7.59 | PASS |
| 176 | 95 - 101% of 174 | 97.3 | PASS |
| 177 | 5 - 9% of 176 | 6.67 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0415CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D10601 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10601-CCV1 | Injection Time: | 09:22 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 92.44 | 1.113159 | 1.029014 | | -7.6 | 20 |
| Ethylbenzene | A | 100.0 | 109.7 | 3.20803 | 3.519619 | | 9.7 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 101.5 | 0.6002451 | 0.6092116 | | 1.5 | 20 |
| Toluene | A | 100.0 | 104.2 | 1.598242 | 1.664939 | | 4.2 | 20 |
| Xylenes (total) | A | 300.0 | 327.4 | 2.345902 | 2.560825 | | 9.2 | 20 |
| Bromofluorobenzene | A | 30.00 | 35.12 | 0.7951301 | 0.9307693 | | 17.1 | 20 |
| Dibromofluoromethane | A | 30.00 | 32.12 | 0.2924952 | 0.3131836 | | 7.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.68 | 5.404713E-02 | 5.528222E-02 | | 2.3 | 20 |
| Toluene-d8 | A | 30.00 | 35.08 | 2.103453 | 2.459291 | | 16.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10810 | Instrument: | MS-VOA5 |
| Calibration: | 1110001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10810-TUN1 | 0415TU1.D | 04/15/11 08:29 |
| Cal Standard | 1D10810-CAL1 | 0415CAL1.D | 04/15/11 09:53 |
| Cal Standard | 1D10810-CAL2 | 0415CAL2.D | 04/15/11 10:18 |
| Cal Standard | 1D10810-CAL3 | 0415CAL3.D | 04/15/11 10:43 |
| Cal Standard | 1D10810-CAL4 | 0415CAL4.D | 04/15/11 11:07 |
| Cal Standard | 1D10810-CAL5 | 0415CAL5.D | 04/15/11 11:32 |
| Cal Standard | 1D10810-CAL6 | 0415CAL6.D | 04/15/11 11:57 |
| Cal Standard | 1D10810-CAL7 | 0415CAL7.D | 04/15/11 12:22 |
| Cal Standard | 1D10810-CAL8 | 0415CAL8.D | 04/15/11 12:47 |
| Cal Standard | 1D10810-CAL9 | 0415CAL9.D | 04/15/11 13:12 |
| Initial Cal Check | 1D10810-ICV2 | 0415ICV2.D | 04/15/11 14:01 |
| Cal Standard | 1D10810-CALA | 0415CALA.D | 04/15/11 14:26 |
| Cal Standard | 1D10810-CALB | 0415CALB.D | 04/15/11 14:51 |
| Cal Standard | 1D10810-CALC | 0415CALC.D | 04/15/11 15:16 |
| Cal Standard | 1D10810-CALD | 0415CALD.D | 04/15/11 15:41 |
| Cal Standard | 1D10810-CALE | 0415CALE.D | 04/15/11 16:05 |
| Cal Standard | 1D10810-CALF | 0415CALF.D | 04/15/11 16:30 |
| Cal Standard | 1D10810-CALG | 0415CALG.D | 04/15/11 16:55 |
| Cal Standard | 1D10810-CALH | 0415CALH.D | 04/15/11 17:20 |
| Cal Standard | 1D10810-CALI | 0415CALI.D | 04/15/11 17:45 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0415TU1.D | Injection Date: | 04/15/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 08:29 |
| Sequence: | 1D10810 | Lab Sample ID: | 1D10810-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 18.4 | PASS |
| 75 | 30 - 60% of 95 | 38.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.52 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 101 | PASS |
| 175 | 5 - 9% of 174 | 7.11 | PASS |
| 176 | 95 - 101% of 174 | 95.6 | PASS |
| 177 | 5 - 9% of 176 | 5.75 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.095435 | 8.130072 | 3.761286 | 9.346288E-02 | | | 15 | |
| Acrolein | 5.338917E-02 | 25.4234 | 3.639333 | 0.1077746 | 0.9990652 | | 0.995 | |
| Acrylonitrile | 9.529337E-02 | 7.569294 | 4.589333 | 0.1474434 | | | 15 | |
| Benzene | 0.8165687 | 6.399931 | 7.650444 | 5.168866E-02 | | | 15 | |
| Bromobenzene | 0.622891 | 4.364366 | 12.40278 | 5.143733E-02 | | | 15 | |
| Bromochloromethane | 0.1322805 | 12.97677 | 6.738889 | 0.0928818 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.6611555 | 6.555788 | 7.841111 | 7.572897E-02 | | | 15 | |
| Bromodichloromethane | 0.3200121 | 9.249059 | 8.636667 | 6.813749E-02 | | | 15 | |
| Bromoform | 0.3605704 | 7.045665 | 11.81067 | 5.905082E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2069788 | 16.64528 | 2.818556 | 0.1637358 | 0.9991868 | | 0.995 | |
| Bromofluorobenzene | 0.8430908 | 5.464727 | 12.24611 | 1.755882E-02 | | | 15 | |
| n-Butylbenzene | 1.504611 | 6.561854 | 13.83644 | 3.032147E-02 | | | 15 | |
| 2-Butanone | 0.1381845 | 9.827188 | 6.202444 | 5.654298E-02 | | | 15 | |
| sec-Butylbenzene | 1.956089 | 7.131853 | 13.29478 | 2.976972E-02 | | | 15 | |
| tert-Butylbenzene | 1.609584 | 9.357792 | 13.06044 | 5.049762E-02 | | | 15 | |
| Carbon disulfide | 0.6773833 | 4.033366 | 4.763333 | 4.957716E-02 | | | 15 | |
| Carbon tetrachloride | 0.2397952 | 7.491069 | 7.617778 | 6.986726E-02 | | | 15 | |
| Chlorobenzene | 1.27837 | 6.608143 | 11.08278 | 5.423621E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.2523708 | 10.49478 | 2.951 | 0.1958913 | | | 15 | |
| Chloroform | 0.4294733 | 10.46046 | 6.715889 | 8.754408E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1717231 | 5.52504 | 8.994556 | 6.848219E-02 | | | 15 | |
| Chloromethane | 0.4745789 | 7.851537 | 2.228667 | 0.1926709 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.344992 | 11.02804 | 11.049 | 3.869327E-02 | | | 15 | |
| 2-Chlorotoluene | 1.535306 | 9.158972 | 12.625 | 3.281746E-02 | | | 15 | |
| 4-Chlorotoluene | 1.734834 | 5.262659 | 12.68844 | 4.818632E-02 | | | 15 | |
| Cyclohexane | 0.4138601 | 6.775805 | 7.549889 | 5.761858E-02 | | | 15 | |
| Dibromochloromethane | 0.5303833 | 3.2862 | 10.31456 | 6.028785E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1125661 | 12.02491 | 14.44125 | 3.902792E-02 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5576892 | 9.147644 | 10.52789 | 5.679238E-02 | | | 15 | |
| Dibromomethane | 0.1598632 | 6.798654 | 8.573222 | 6.249779E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 0.9737531 | 6.602409 | 13.79711 | 3.249335E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.069325 | 10.20858 | 13.38444 | 4.478999E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.125829 | 14.93571 | 13.47644 | 4.420105E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.2985279 | 5.170388 | 2.017222 | 0.1785951 | 0.9997339 | | 0.995 | |
| 1,1-Dichloroethane | 0.4614852 | 7.557788 | 5.750445 | 9.968297E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.3353382 | 6.162455 | 7.478667 | 8.089861E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2191262 | 13.53056 | 4.228111 | 0.1783801 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2631228 | 9.248231 | 6.459889 | 8.951479E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2436546 | 12.59655 | 5.375111 | 0.1345106 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2533887 | 9.456715 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2855651 | 8.528436 | 8.460444 | 7.290993E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8114537 | 6.040153 | 10.05411 | 0.0399961 | | | 15 | |
| 2,2-Dichloropropane | 0.3095193 | 8.274472 | 6.569333 | 9.334919E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.3108414 | 6.366392 | 7.497444 | 8.152097E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3753906 | 7.176617 | 9.211445 | 6.630273E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7331598 | 6.458765 | 9.686222 | 5.472616E-02 | | | 15 | |
| 1,3-Dichloropropene (total) | 0.3472984 | 7.996073 | 9.686222 | 5.472616E-02 | | | 15 | |
| Diisopropyl Ether | 1.080593 | 3.893299 | 6.121667 | 6.412666E-02 | | | 15 | |
| Ethylbenzene | 2.034033 | 6.673525 | 11.22944 | 0.0629414 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.8248362 | 5.044401 | 6.587778 | 7.160754E-02 | | | 15 | |
| Ethyl Methacrylate | 0.712546 | 5.877163 | 9.872444 | 5.863743E-02 | | | 15 | |
| Hexachlorobutadiene | 0.2336594 | 14.11394 | 15.80222 | 3.541708E-02 | | | 15 | |
| 2-Hexanone | 0.4812427 | 9.22694 | 9.992778 | 3.236776E-02 | | | 15 | |
| Iodomethane | 0.2291179 | 30.40252 | 4.4235 | 0.1630534 | 0.9990179 | | 0.995 | |
| Isopropylbenzene | 1.559553 | 8.952109 | 12.13022 | 3.579421E-02 | | | 15 | |
| p-Isopropyltoluene | 1.67706 | 6.663178 | 13.43278 | 2.871329E-02 | | | 15 | |
| Methylene chloride | 0.2560903 | 7.621563 | 4.710375 | 0.1147551 | | | 15 | |
| Methyl Acetate | 0.243392 | 26.37392 | 4.575 | 9.409387E-02 | 0.999715 | | 0.995 | |
| Methylcyclohexane | 0.3004004 | 8.944592 | 8.791 | 4.837696E-02 | | | 15 | |
| Naphthalene | 1.327067 | 5.143918 | 15.67311 | 3.798954E-02 | | | 15 | |
| Methyl Methacrylate | 0.2826983 | 13.92008 | 7.548778 | 7.251518E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.2783504 | 3.582551 | 9.140111 | 2.964067E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.5601073 | 13.42515 | 5.375111 | 7.721725E-02 | | | 15 | |
| n-Propylbenzene | 2.48505 | 6.85256 | 12.53956 | 5.596903E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Styrene | 1.314151 | 5.413242 | 11.70344 | 5.177519E-02 | | | 15 | |
| 1,1,2,2-Tetrachloroethane | 0.7120744 | 7.923079 | 12.05467 | 5.038292E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.4766101 | 6.262437 | 11.12456 | 4.672365E-02 | | | 15 | |
| tert-Butyl alcohol | 2.184747E-02 | 10.65008 | 4.374778 | 0.1799545 | | | 15 | |
| Tetrachloroethene | 0.4624975 | 10.6729 | 10.424 | 5.774833E-02 | | | 15 | |
| Toluene | 1.118865 | 6.198212 | 9.688333 | 5.751295E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.510204 | 11.15195 | 15.95856 | 3.955662E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.5978181 | 13.4198 | 15.521 | 2.557265E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.4520995 | 10.62213 | 9.842667 | 6.054729E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3137102 | 6.314808 | 7.277333 | 7.972291E-02 | | | 15 | |
| Tetrahydrofuran | 8.753059E-02 | 24.39609 | 6.928 | 8.088625E-02 | 0.9995802 | | 0.995 | |
| Trichloroethene | 0.2384711 | 6.483154 | 8.412333 | 8.104842E-02 | | | 15 | |
| Trichlorofluoromethane | 0.4040041 | 4.421798 | 3.443333 | 0.0711888 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1604519 | 12.94579 | 12.18167 | 0.049631 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.631689 | 7.556347 | 12.71789 | 0.0493266 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.658949 | 7.474238 | 13.09133 | 5.295763E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2072873 | 8.432636 | 4.302556 | 0.1663512 | | | 15 | |
| Vinyl chloride | 0.3152422 | 29.09972 | 2.374222 | 0.1915386 | | 0.9981236 | CCC (20) | * |
| m,p-Xylene | 1.557766 | 9.078421 | 11.34 | 6.848237E-02 | | | 15 | |
| o-Xylene | 1.652495 | 8.873298 | 11.73289 | 5.401407E-02 | | | 15 | |
| Vinyl acetate | 0.3762815 | 6.768409 | 5.822778 | 0.1039803 | | | 15 | |
| Xylenes (total) | 1.589343 | 8.838143 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.2932159 | 4.427291 | 6.893333 | 0.0409069 | | | 15 | |
| 1,2-Dichloroethane-d4 | 0.059471 | 4.368149 | 7.391111 | 4.109608E-02 | | | 15 | |
| Toluene-d8 | 2.056027 | 5.771716 | 9.617222 | 3.111463E-02 | | | 15 | |
| tert-Amyl alcohol | 1.751761E-02 | 4.453294 | 7.088 | 8.142149E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.6737656 | 4.880926 | 8.727444 | 6.940179E-02 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1110001 |
| Lab File ID: | 0415ICV2.D | Calibration Date: | 04/15/11 09:53 |
| Sequence: | 1D10810 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10810-ICV2 | Injection Time: | 14:01 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acrolein | L | 500.2 | 546.3 | 5.338917E-02 | 4.913908E-02 | | 9.2 | 20 |
| Acrylonitrile | A | 499.8 | 529.1 | 9.529337E-02 | 0.1008466 | | 5.8 | 20 |
| Benzene | A | 100.0 | 101.0 | 0.8165687 | 0.824451 | | 1.0 | 20 |
| Bromodichloromethane | A | 100.0 | 107.1 | 0.3200121 | 0.3427536 | | 7.1 | 20 |
| Bromoform | A | 100.0 | 108.2 | 0.3605704 | 0.3900612 | 0.1 | 8.2 | 20 |
| Bromomethane | L | 100.0 | 96.76 | 0.2069788 | 0.2391732 | | -3.2 | 20 |
| Carbon tetrachloride | A | 100.0 | 107.2 | 0.2397952 | 0.2570399 | | 7.2 | 20 |
| Chlorobenzene | A | 100.0 | 101.7 | 1.27837 | 1.300708 | 0.3 | 1.7 | 20 |
| Chloroethane | A | 100.0 | 93.79 | 0.2523708 | 0.2366934 | | -6.2 | 20 |
| Chloroform | A | 100.0 | 98.98 | 0.4294733 | 0.4250874 | | -1.0 | 20 |
| 2-Chloroethyl vinyl ether | A | 199.5 | 231.7 | 0.1717231 | 0.1989243 | | 15.8 | 20 |
| Chloromethane | A | 100.0 | 109.4 | 0.4745789 | 0.5191108 | 0.1 | 9.4 | 20 |
| Dibromochloromethane | A | 100.0 | 106.8 | 0.5303833 | 0.5662585 | | 6.8 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 99.56 | 0.5576892 | 0.5552454 | | -0.4 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 102.7 | 0.4614852 | 0.4740397 | 0.1 | 2.7 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 104.8 | 0.3353382 | 0.351463 | | 4.8 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 99.74 | 0.2191262 | 0.2185616 | | -0.3 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 98.50 | 0.2631228 | 0.2591797 | | -1.5 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 99.02 | 0.2436546 | 0.241263 | | -1.0 | 20 |
| 1,2-Dichloropropane | A | 100.0 | 100.1 | 0.2855651 | 0.2858466 | | 0.1 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 100.3 | 0.3753906 | 0.3764082 | | 0.3 | 20 |
| trans-1,3-Dichloropropene | A | 100.0 | 117.0 | 0.7331598 | 0.8574418 | | 17.0 | 20 |
| 1,3-Dichloropropene (total) | A | 200.0 | 217.2 | 0.3472984 | 0.378569 | | 9.0 | 20 |
| Ethylbenzene | A | 100.0 | 99.98 | 2.034033 | 2.033602 | | -0.02 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 107.3 | 0.5601073 | 0.6009371 | | 7.3 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 99.25 | 0.7120744 | 0.7067488 | 0.3 | -0.7 | 20 |
| Tetrachloroethene | A | 100.0 | 105.7 | 0.4624975 | 0.488637 | | 5.7 | 20 |
| Toluene | A | 100.0 | 100.4 | 1.118865 | 1.123341 | | 0.4 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 94.82 | 0.5978181 | 0.5668317 | | -5.2 | 20 |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1110001 |
| Lab File ID: | 0415ICV2.D | Calibration Date: | 04/15/11 09:53 |
| Sequence: | 1D10810 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10810-ICV2 | Injection Time: | 14:01 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,1,2-Trichloroethane | A | 100.0 | 93.72 | 0.4520995 | 0.4236851 | | -6.3 | 20 |
| 1,1,1-Trichloroethane | A | 100.0 | 101.5 | 0.3137102 | 0.3183372 | | 1.5 | 20 |
| Trichloroethene | A | 100.0 | 104.8 | 0.2384711 | 0.2498765 | | 4.8 | 20 |
| Vinyl chloride | Q | 100.0 | 102.4 | 0.3152422 | 0.2413318 | | 2.4 | 20 |
| Xylenes (total) | A | 300.0 | 298.9 | 1.589343 | 1.583136 | | -0.4 | 20 |
| Bromofluorobenzene | A | 30.00 | 29.40 | 0.8430908 | 0.8261078 | | -2.0 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.09 | 0.2932159 | 0.3038724 | | 3.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 31.37 | 0.059471 | 6.218618E-02 | | 4.6 | 20 |
| Toluene-d8 | A | 30.00 | 29.51 | 2.056027 | 2.022546 | | -1.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11204 | Instrument: | MS-VOA5 |
| Calibration: | 1110001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11204-TUN1 | 0421TU1.D | 04/21/11 07:13 |
| Calibration Check | 1D11204-CCV1 | 0421CC1.D | 04/21/11 07:38 |
| LCS | 1D21008-BS1 | 0421LS1.D | 04/21/11 08:03 |
| Blank | 1D21008-BLK1 | 0421BL1.D | 04/21/11 09:17 |
| Trip Blank 9479 | 1104123-10 | 0412310.D | 04/21/11 09:42 |
| 05-MW-053 | 1104123-05 | 0412305.D | 04/21/11 10:33 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0421TU1.D | Injection Date: | 04/21/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 07:13 |
| Sequence: | 1D11204 | Lab Sample ID: | 1D11204-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 25.5 | PASS |
| 75 | 30 - 60% of 95 | 43.4 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.08 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 61.8 | PASS |
| 175 | 5 - 9% of 174 | 7.1 | PASS |
| 176 | 95 - 101% of 174 | 99.1 | PASS |
| 177 | 5 - 9% of 176 | 7.11 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1110001 |
| Lab File ID: | 0421CC1.D | Calibration Date: | 04/15/11 09:53 |
| Sequence: | 1D11204 | Injection Date: | 04/21/11 |
| Lab Sample ID: | 1D11204-CCV1 | Injection Time: | 07:38 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acrolein | L | 500.2 | 292.4 | 5.338917E-02 | 2.645677E-02 | | -41.5 | 20 * |
| Acrylonitrile | A | 499.8 | 537.5 | 9.529337E-02 | 0.1024433 | | 7.5 | 20 |
| Benzene | A | 100.0 | 118.5 | 0.8165687 | 0.9678799 | | 18.5 | 20 |
| Bromodichloromethane | A | 100.0 | 105.6 | 0.3200121 | 0.3379455 | | 5.6 | 20 |
| Bromoform | A | 100.0 | 95.84 | 0.3605704 | 0.3455911 | 0.1 | -4.2 | 20 |
| Bromomethane | L | 100.0 | 110.6 | 0.2069788 | 0.2740053 | | 10.6 | 20 |
| Carbon tetrachloride | A | 100.0 | 106.8 | 0.2397952 | 0.2560077 | | 6.8 | 20 |
| Chlorobenzene | A | 100.0 | 101.0 | 1.27837 | 1.290638 | 0.3 | 1.0 | 20 |
| Chloroethane | A | 100.0 | 108.6 | 0.2523708 | 0.2740279 | | 8.6 | 20 |
| Chloroform | A | 100.0 | 104.1 | 0.4294733 | 0.4472136 | | 4.1 | 20 |
| 2-Chloroethyl vinyl ether | A | 199.5 | 212.0 | 0.1717231 | 0.1820279 | | 6.0 | 20 |
| Chloromethane | A | 100.0 | 112.8 | 0.4745789 | 0.535112 | 0.1 | 12.8 | 20 |
| Dibromochloromethane | A | 100.0 | 103.3 | 0.5303833 | 0.5478375 | | 3.3 | 20 |
| 1,2-Dibromoethane (EDB) | A | 100.0 | 98.14 | 0.5576892 | 0.5473166 | | -1.9 | 20 |
| 1,1-Dichloroethane | A | 100.0 | 116.9 | 0.4614852 | 0.5394858 | 0.1 | 16.9 | 20 |
| 1,2-Dichloroethane | A | 100.0 | 107.4 | 0.3353382 | 0.3602694 | | 7.4 | 20 |
| 1,1-Dichloroethene | A | 100.0 | 109.0 | 0.2191262 | 0.2388119 | | 9.0 | 20 |
| cis-1,2-Dichloroethene | A | 100.0 | 109.8 | 0.2631228 | 0.2888124 | | 9.8 | 20 |
| trans-1,2-Dichloroethene | A | 100.0 | 109.5 | 0.2436546 | 0.2667065 | | 9.5 | 20 |
| 1,2-Dichloropropane | A | 100.0 | 117.4 | 0.2855651 | 0.3353327 | | 17.4 | 20 |
| cis-1,3-Dichloropropene | A | 100.0 | 108.9 | 0.3753906 | 0.4089492 | | 8.9 | 20 |
| trans-1,3-Dichloropropene | A | 100.0 | 107.4 | 0.7331598 | 0.7873824 | | 7.4 | 20 |
| 1,3-Dichloropropene (total) | A | 200.0 | 216.3 | 0.3472984 | 0.3842272 | | 10.6 | 20 |
| Ethylbenzene | A | 100.0 | 101.8 | 2.034033 | 2.070601 | | 1.8 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 113.0 | 0.5601073 | 0.6332343 | | 13.1 | 20 |
| 1,1,2,2-Tetrachloroethane | A | 100.0 | 102.6 | 0.7120744 | 0.7309884 | 0.3 | 2.7 | 20 |
| Tetrachloroethene | A | 100.0 | 104.7 | 0.4624975 | 0.4842011 | | 4.7 | 20 |
| Toluene | A | 100.0 | 102.8 | 1.118865 | 1.150175 | | 2.8 | 20 |
| 1,2,4-Trichlorobenzene | A | 100.0 | 93.83 | 0.5978181 | 0.5609417 | | -6.2 | 20 |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1110001 |
| Lab File ID: | 0421CC1.D | Calibration Date: | 04/15/11 09:53 |
| Sequence: | 1D11204 | Injection Date: | 04/21/11 |
| Lab Sample ID: | 1D11204-CCV1 | Injection Time: | 07:38 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,1,2-Trichloroethane | A | 100.0 | 96.17 | 0.4520995 | 0.4347895 | | -3.8 | 20 |
| 1,1,1-Trichloroethane | A | 100.0 | 103.9 | 0.3137102 | 0.325831 | | 3.9 | 20 |
| Trichloroethene | A | 100.0 | 114.4 | 0.2384711 | 0.2727719 | | 14.4 | 20 |
| Vinyl chloride | Q | 100.0 | 88.44 | 0.3152422 | 0.2162694 | | -11.6 | 20 |
| Xylenes (total) | A | 300.0 | 303.1 | 1.589343 | 1.605166 | | 1.0 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.09 | 0.8430908 | 0.7894478 | | -6.4 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.82 | 0.2932159 | 0.310999 | | 6.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 31.65 | 0.059471 | 6.274079E-02 | | 5.5 | 20 |
| Toluene-d8 | A | 30.00 | 28.62 | 2.056027 | 1.96131 | | -4.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11614 | Instrument: | MS-VOA5 |
| Calibration: | 1110001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11614-TUN1 | 0425TU1.D | 04/25/11 08:58 |
| Calibration Check | 1D11614-CCV1 | 0425CC1.D | 04/25/11 09:23 |
| LCS | 1D25007-BS1 | 0425LS1.D | 04/25/11 09:59 |
| Blank | 1D25007-BLK1 | 0425BL1.D | 04/25/11 11:14 |
| Trip Blank #9474 | 1104159-05 | 0415905.D | 04/25/11 11:40 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0425TU1.D | Injection Date: | 04/25/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 08:58 |
| Sequence: | 1D11614 | Lab Sample ID: | 1D11614-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 20.2 | PASS |
| 75 | 30 - 60% of 95 | 37.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 5.86 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 92.4 | PASS |
| 175 | 5 - 9% of 174 | 6.74 | PASS |
| 176 | 95 - 101% of 174 | 96.9 | PASS |
| 177 | 5 - 9% of 176 | 6.57 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1110001 |
| Lab File ID: | 0425CC1.D | Calibration Date: | 04/15/11 09:53 |
| Sequence: | 1D11614 | Injection Date: | 04/25/11 |
| Lab Sample ID: | 1D11614-CCV1 | Injection Time: | 09:23 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 112.4 | 0.8165687 | 0.9180843 | | 12.4 | 20 |
| Ethylbenzene | A | 100.0 | 98.81 | 2.034033 | 2.009856 | | -1.2 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 114.6 | 0.5601073 | 0.6416866 | | 14.6 | 20 |
| Toluene | A | 100.0 | 96.20 | 1.118865 | 1.0764 | | -3.8 | 20 |
| Xylenes (total) | A | 300.0 | 298.2 | 1.589343 | 1.579057 | | -0.6 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.33 | 0.8430908 | 0.7962712 | | -5.6 | 20 |
| Dibromofluoromethane | A | 30.00 | 32.67 | 0.2932159 | 0.3192808 | | 8.9 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 32.25 | 0.059471 | 0.0639251 | | 7.5 | 20 |
| Toluene-d8 | A | 30.00 | 28.67 | 2.056027 | 1.964953 | | -4.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11710 | Instrument: | MS-VOA5 |
| Calibration: | 1110001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11710-TUN1 | 0426TU1.D | 04/26/11 15:57 |
| Calibration Check | 1D11710-CCV1 | 0426CC1.D | 04/26/11 16:23 |
| LCS | 1D26026-BS1 | 0426LS1.D | 04/26/11 16:58 |
| Blank | 1D26026-BLK1 | 0425BL1.D | 04/26/11 18:17 |
| IDW Drums | 1104159-06RE1 | 0415906R.D | 04/26/11 18:43 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0426TU1.D | Injection Date: | 04/26/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 15:57 |
| Sequence: | 1D11710 | Lab Sample ID: | 1D11710-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.9 | PASS |
| 75 | 30 - 60% of 95 | 43.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.04 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 79.5 | PASS |
| 175 | 5 - 9% of 174 | 6.64 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 6.87 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1110001 |
| Lab File ID: | 0426CC1.D | Calibration Date: | 04/15/11 09:53 |
| Sequence: | 1D11710 | Injection Date: | 04/26/11 |
| Lab Sample ID: | 1D11710-CCV1 | Injection Time: | 16:23 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 110.0 | 0.8165687 | 0.8986576 | | 10.1 | 20 |
| Ethylbenzene | A | 100.0 | 97.29 | 2.034033 | 1.978943 | | -2.7 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 122.7 | 0.5601073 | 0.6872948 | | 22.7 | 20 * |
| Toluene | A | 100.0 | 95.28 | 1.118865 | 1.066115 | | -4.7 | 20 |
| Xylenes (total) | A | 300.0 | 297.6 | 1.589343 | 1.57549 | | -0.9 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.38 | 0.8430908 | 0.797463 | | -5.4 | 20 |
| Dibromofluoromethane | A | 30.00 | 32.28 | 0.2932159 | 0.3154514 | | 7.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 32.37 | 0.059471 | 6.417015E-02 | | 7.9 | 20 |
| Toluene-d8 | A | 30.00 | 27.99 | 2.056027 | 1.918613 | | -6.7 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# HOLDING TIME SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-MW-053 | 04/10/11 14:30 | 04/12/11 08:45 | 04/18/11 09:50 | N/A | 14.00 | 04/19/11 20:04 | 9.27 | 14.00 | |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_007

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Water **Instrument:** GL-ECD2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| 1,2-Dibromoethane | 0.0100 | 0.0300 | ug/L | SW8011 |

# PREPARATION BATCH SUMMARY

## SW8011

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D18006 Batch Matrix: Water Preparation: EDB

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-053 | 1104123-05 | 04/18/11 09:50 | 38.02 | 35.00 |
| Blank | 1D18006-BLK1 | 04/18/11 09:50 | 35.00 | 35.00 |
| LCS | 1D18006-BS1 | 04/18/11 09:50 | 35.00 | 35.00 |
| LCS Dup | 1D18006-BSD1 | 04/18/11 09:50 | 35.00 | 35.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D18006-BLK1 | File ID: | 003R0101.D |
| Sampled: | | Prepared: | 04/18/11 09:50 | Analyzed: | 04/19/11 14:43 |
| Solids: | | Preparation: | EDB | Dilution: | |

Batch: 1D18006 Sequence: 1D11037 Calibration: 0344003 Instrument: GL-ECD2

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 106-93-4 | 1,2-Dibromoethane | | 0.0100 | 0.0200 | 0.0300 | U |

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 0L34409 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 0L34409-CAL1 | 002R0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL1 | 002F0101.D | 12/09/10 14:14 |
| Cal Standard | 0L34409-CAL2 | 003F0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL2 | 003R0101.D | 12/09/10 14:35 |
| Cal Standard | 0L34409-CAL3 | 004F0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL3 | 004R0101.D | 12/09/10 14:56 |
| Cal Standard | 0L34409-CAL4 | 005R0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL4 | 005F0101.D | 12/09/10 15:17 |
| Cal Standard | 0L34409-CAL5 | 006R0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL5 | 006F0101.D | 12/09/10 15:38 |
| Cal Standard | 0L34409-CAL6 | 007F0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL6 | 007R0101.D | 12/09/10 16:00 |
| Cal Standard | 0L34409-CAL7 | 008F0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL7 | 008R0101.D | 12/09/10 16:21 |
| Cal Standard | 0L34409-CAL8 | 009F0101.D | 12/09/10 16:42 |
| Cal Standard | 0L34409-CAL8 | 009R0101.D | 12/09/10 16:42 |
| Initial Cal Check | 0L34409-ICV1 | 010R0101.D | 12/09/10 17:04 |
| Initial Cal Check | 0L34409-ICV1 | 010F0101.D | 12/09/10 17:04 |

# ANALYSIS SEQUENCE SUMMARY
## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11037 | Instrument: | GL-ECD2 |
| Calibration: | 0344003 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D11037-CCV1 | 001R0101.D | 04/19/11 14:06 |
| Calibration Check | 1D11037-CCV1 | 001F0101.D | 04/19/11 14:06 |
| Blank | 1D18006-BLK1 | 003R0101.D | 04/19/11 14:43 |
| LCS | 1D18006-BS1 | 004R0101.D | 04/19/11 15:05 |
| LCS | 1D18006-BS1 | 004F0101.D | 04/19/11 15:05 |
| LCS Dup | 1D18006-BSD1 | 005R0101.D | 04/19/11 15:26 |
| LCS Dup | 1D18006-BSD1 | 005F0101.D | 04/19/11 15:26 |
| Calibration Check | 1D11037-CCV2 | 009R0101.D | 04/19/11 16:52 |
| Calibration Check | 1D11037-CCV2 | 009F0101.D | 04/19/11 16:52 |
| 05-MW-053 | 1104123-05 | 018R0101.D | 04/19/11 20:04 |
| Calibration Check | 1D11037-CCV3 | 019R0101.D | 04/19/11 20:25 |
| Calibration Check | 1D11037-CCV3 | 019F0101.D | 04/19/11 20:25 |

# INITIAL CALIBRATION DATA (Continued)

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 0344003 | Instrument: | GL-ECD2 |
| Matrix: | Water | Calibration Dates: | 12/9/10_14:14 12/9/10_16:42 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromoethane | 17489.79 | 18.96825 | 1.543 | 1.749237E-02 | | 0.9996372 | CCC () | * |
| 1,2-Dibromoethane [2C] | 37183.36 | 15.05167 | 0.583 | 2.248094E-02 | | 0.9995717 | CCC () | * |
| 1,2-Dibromo-3-chloropropane | 35650.07 | 32.01128 | 6.973 | 2.748517E-02 | | 0.9987968 | CCC () | * |
| 1,2-Dibromo-3-chloropropane [2C] | 100449.9 | 35.64558 | 4.139286 | 5.910871E-02 | | 0.9986728 | CCC () | * |

# INITIAL CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 010F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 0L34409 | Injection Date: | 12/09/10 |
| Lab Sample ID: | 0L34409-ICV1 | Injection Time: | 17:04 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4746 | 17489.79 | 14620 | | -5.1 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.4584 | 37183.36 | 30824 | | -8.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 001F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D11037 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11037-CCV1 | Injection Time: | 14:06 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5429 | 17489.79 | 16568 | | 8.6 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.7292 | 37183.36 | 45266 | | 45.8 | 20 * |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 009F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D11037 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11037-CCV2 | Injection Time: | 16:52 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.5300 | 17489.79 | 16202 | | 6.0 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.6981 | 37183.36 | 43694 | | 39.6 | 20 * |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## SW8011

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-ECD2 | Calibration: | 0344003 |
| Lab File ID: | 019F0101.D | Calibration Date: | 12/09/10 14:14 |
| Sequence: | 1D11037 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11037-CCV3 | Injection Time: | 20:25 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| 1,2-Dibromoethane | Q | 0.5000 | 0.4860 | 17489.79 | 14948 | | -2.8 | 20 |
| 1,2-Dibromoethane [2C] | Q | 0.5000 | 0.6817 | 37183.36 | 42856 | | 36.3 | 20 * |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# HOLDING TIME SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-051-0204 | 04/10/11 13:15 | 04/12/11 08:45 | 04/19/11 17:45 | 9.23 | 14.00 | 04/23/11 23:00 | 4.22 | 40.00 | |
| 05-SS-052-0204 | 04/10/11 13:40 | 04/12/11 08:45 | 04/19/11 17:45 | 9.21 | 14.00 | 04/23/11 23:25 | 4.24 | 40.00 | |
| 05-SS-053-0002 | 04/10/11 13:55 | 04/12/11 08:45 | 04/19/11 17:45 | 9.20 | 14.00 | 04/24/11 15:55 | 4.92 | 40.00 | |
| 05-SS-054-0204 | 04/10/11 15:15 | 04/12/11 08:45 | 04/19/11 17:45 | 9.15 | 14.00 | 04/23/11 23:51 | 4.25 | 40.00 | |
| 05-MW-053 | 04/10/11 14:30 | 04/12/11 08:45 | 04/15/11 14:35 | 5.05 | 7.00 | 04/18/11 12:32 | 2.91 | 40.00 | |
| 05-SS-029-0204 | 04/10/11 15:50 | 04/12/11 08:45 | 04/19/11 17:45 | 9.12 | 14.00 | 04/24/11 12:36 | 4.79 | 40.00 | |
| 05-SS-090-0204 | 04/10/11 16:15 | 04/12/11 08:45 | 04/19/11 17:45 | 9.10 | 14.00 | 04/24/11 14:16 | 4.85 | 40.00 | |
| 05-SS-089-0406 | 04/10/11 16:35 | 04/12/11 08:45 | 04/19/11 17:45 | 9.09 | 14.00 | 04/24/11 13:01 | 4.80 | 40.00 | |
| 05-SS-088-0406 | 04/10/11 17:05 | 04/12/11 08:45 | 04/19/11 17:45 | 9.07 | 14.00 | 04/24/11 14:40 | 4.87 | 40.00 | |
| 05-SS-095-0204 | 04/12/11 08:00 | 04/13/11 08:30 | 04/19/11 17:45 | 7.45 | 14.00 | 04/24/11 13:26 | 4.82 | 40.00 | |
| 05-SS-096-0204 | 04/12/11 08:35 | 04/13/11 08:30 | 04/19/11 17:45 | 7.42 | 14.00 | 04/24/11 13:51 | 4.84 | 40.00 | |
| 05-SS-097-0204 | 04/12/11 09:20 | 04/13/11 08:30 | 04/19/11 17:45 | 7.39 | 14.00 | 04/24/11 15:05 | 4.89 | 40.00 | |
| 05-SS-098-0204 | 04/12/11 09:25 | 04/13/11 08:30 | 04/19/11 17:45 | 7.39 | 14.00 | 04/24/11 15:30 | 4.91 | 40.00 | |
| IDW Drums | 04/12/11 10:00 | 04/13/11 08:30 | 04/15/11 14:35 | 3.19 | 7.00 | 04/24/11 11:24 | 8.87 | 40.00 | |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D14024 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-053 | 1104123-05 | 04/15/11 14:35 | 1,040.00 | 1.00 |
| IDW Drums | 1104159-06 | 04/15/11 14:35 | 1,080.00 | 1.00 |
| Blank | 1D14024-BLK1 | 04/15/11 14:35 | 1,000.00 | 1.00 |
| LCS | 1D14024-BS1 | 04/15/11 14:35 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D14024-BLK1 | File ID: | D14024B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/18/11 12:03 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1D14024 Sequence: 1D10908 Calibration: 1061004 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.0500 | 0.100 | 0.200 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 42.05 | 84.1 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 39.46 | 78.9 | 34 - 167 | |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D18014 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-051-0204 | 1104123-01 | 04/19/11 17:45 | 15.30 | 1.00 |
| 05-SS-052-0204 | 1104123-02 | 04/19/11 17:45 | 15.40 | 1.00 |
| 05-SS-053-0002 | 1104123-03 | 04/19/11 17:45 | 15.00 | 1.00 |
| 05-SS-054-0204 | 1104123-04 | 04/19/11 17:45 | 15.00 | 1.00 |
| 05-SS-029-0204 | 1104123-06 | 04/19/11 17:45 | 15.80 | 1.00 |
| 05-SS-090-0204 | 1104123-07 | 04/19/11 17:45 | 15.50 | 1.00 |
| 05-SS-089-0406 | 1104123-08 | 04/19/11 17:45 | 15.30 | 1.00 |
| 05-SS-088-0406 | 1104123-09 | 04/19/11 17:45 | 15.50 | 1.00 |
| 05-SS-095-0204 | 1104159-01 | 04/19/11 17:45 | 15.10 | 1.00 |
| 05-SS-096-0204 | 1104159-02 | 04/19/11 17:45 | 15.20 | 1.00 |
| 05-SS-097-0204 | 1104159-03 | 04/19/11 17:45 | 15.60 | 1.00 |
| 05-SS-098-0204 | 1104159-04 | 04/19/11 17:45 | 15.40 | 1.00 |
| Blank | 1D18014-BLK1 | 04/19/11 17:45 | 15.00 | 1.00 |
| LCS | 1D18014-BS1 | 04/19/11 17:45 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D18014-BLK1 | File ID: | D18014B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/23/11 14:20 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D18014 Sequence: 1D11503 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.373 | 71.2 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 2.977 | 89.3 | 14 - 129 | |

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C06115 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C06115-TUN1 | SEQ-TUN1.D | 02/28/11 19:40 |
| Cal Standard | 1C06115-CAL1 | SEQ-CAL1.D | 02/28/11 19:58 |
| Cal Standard | 1C06115-CAL2 | SEQ-CAL2.D | 02/28/11 20:24 |
| Cal Standard | 1C06115-CAL3 | SEQ-CAL3.D | 02/28/11 20:50 |
| Cal Standard | 1C06115-CAL4 | SEQ-CAL4.D | 02/28/11 21:16 |
| Cal Standard | 1C06115-CAL5 | SEQ-CAL5.D | 02/28/11 21:42 |
| Cal Standard | 1C06115-CAL6 | SEQ-CAL6.D | 02/28/11 22:08 |
| Cal Standard | 1C06115-CAL7 | SEQ-CAL7.D | 02/28/11 22:35 |
| Cal Standard | 1C06115-CAL8 | SEQ-CAL8.D | 02/28/11 23:01 |
| MS Tune | 1C06115-TUN2 | SEQ-TUN1.D | 03/01/11 12:01 |
| Initial Cal Check | 1C06115-ICV1 | SEQ-ICV1.D | 03/01/11 12:19 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 02/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 19:40 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 54 | PASS |
| 68 | Less than 2% of 69 | 1.39 | PASS |
| 69 | Less than 200% of 198 | 52.7 | PASS |
| 70 | Less than 2% of 69 | 0.407 | PASS |
| 127 | 40 - 60% of 198 | 57.4 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.79 | PASS |
| 275 | 10 - 30% of 198 | 25.3 | PASS |
| 365 | 1 - 200% of 198 | 3.37 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 20.3 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/01/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:01 |
| Sequence: | 1C06115 | Lab Sample ID: | 1C06115-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.55 | PASS |
| 69 | Less than 200% of 198 | 50.4 | PASS |
| 70 | Less than 2% of 69 | 0.486 | PASS |
| 127 | 40 - 60% of 198 | 56.1 | PASS |
| 197 | Less than 1% of 198 | 1 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.03 | PASS |
| 275 | 10 - 30% of 198 | 25.6 | PASS |
| 365 | 1 - 200% of 198 | 3.45 | PASS |
| 441 | 0.001 - 100% of 443 | 82.1 | PASS |
| 442 | 40 - 200% of 198 | 103 | PASS |
| 443 | 17 - 23% of 442 | 19.8 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1061004 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 2/28/11 19:58 2/28/11 23:01 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8277096 | 5.964029 | 9.633875 | 8.915397E-02 | | | CCC (30) | |
| Acenaphthylene | 1.235702 | 11.26304 | 9.425 | 6.665902E-02 | | | 15 | |
| Anthracene | 1.13295 | 3.786272 | 11.52837 | 6.266625E-02 | | | 15 | |
| Benzo(a)anthracene | 0.8691476 | 15.11626 | 14.71213 | 5.462316E-02 | 0.9952477 | | 0.995 | |
| Benzo(a)pyrene | 1.056815 | 4.183578 | 16.4705 | 5.396188E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.338014 | 9.966544 | 16.07662 | 5.173099E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.9482109 | 13.88728 | 18.45625 | 7.723512E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.2951 | 6.235241 | 16.108 | 5.845528E-02 | | | 15 | |
| Chrysene | 0.8791148 | 11.31297 | 14.76 | 4.591394E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.8237431 | 7.540873 | 18.024 | 5.675539E-02 | | | 15 | |
| Fluoranthene | 1.197097 | 5.749219 | 12.9345 | 5.235663E-02 | | | CCC (30) | |
| Fluorene | 0.7884623 | 4.944379 | 10.27338 | 6.435991E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8894126 | 7.367129 | 8.767375 | 5.071162E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 1.067942 | 5.744412 | 18.02163 | 5.897508E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8735331 | 12.15937 | 8.4405 | 5.284201E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8753044 | 13.10583 | 8.321125 | 5.827663E-02 | | | 15 | |
| Naphthalene | 1.363682 | 13.39317 | 7.482125 | 3.967633E-02 | | | 15 | |
| Phenanthrene | 1.17432 | 1.744274 | 11.461 | 5.511778E-02 | | | 15 | |
| Pyrene | 1.206692 | 5.463181 | 13.21437 | 5.315315E-02 | | | 15 | |
| Terphenyl-d14 | 0.7416898 | 8.59253 | 13.40512 | 3.369558E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1674143 | 4.178063 | 10.5764 | 9.131494E-02 | | | 15 | |
| 1,4-Dichlorobenzene-d4 | | | | | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1C06115 | Injection Date: | 03/01/11 |
| Lab Sample ID: | 1C06115-ICV1 | Injection Time: | 12:19 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.234 | 0.8277096 | 0.8665216 | | 4.7 | 20 |
| Acenaphthylene | A | 5.000 | 5.787 | 1.235702 | 1.430186 | | 15.7 | 20 |
| Anthracene | A | 5.000 | 5.426 | 1.13295 | 1.229415 | | 8.5 | 20 |
| Benzo(a)anthracene | L | 5.000 | 4.970 | 0.8691476 | 0.9136814 | | -0.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.399 | 1.056815 | 1.141205 | | 8.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.866 | 1.338014 | 1.302123 | | -2.7 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.830 | 0.9482109 | 0.9159273 | | -3.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.796 | 1.2951 | 1.501354 | | 15.9 | 20 |
| Chrysene | A | 5.000 | 5.406 | 0.8791148 | 0.9505258 | | 8.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.789 | 0.8237431 | 0.7889492 | | -4.2 | 20 |
| Fluoranthene | A | 5.000 | 5.284 | 1.197097 | 1.265188 | | 5.7 | 20 |
| Fluorene | A | 5.000 | 5.335 | 0.7884623 | 0.8413243 | | 6.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.885 | 1.067942 | 1.043478 | | -2.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.030 | 0.8735331 | 0.8786867 | | 0.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.052 | 0.8753044 | 0.88448 | | 1.0 | 20 |
| Naphthalene | A | 5.000 | 5.217 | 1.363682 | 1.422778 | | 4.3 | 20 |
| Phenanthrene | A | 5.000 | 5.384 | 1.17432 | 1.264507 | | 7.7 | 20 |
| Pyrene | A | 5.000 | 5.486 | 1.206692 | 1.324032 | | 9.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.477 | 0.8894126 | 0.974327 | | 9.5 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.816 | 0.7416898 | 0.8626973 | | 16.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10908 | Instrument: | MS-BNA4 |
| Calibration: | 1061004 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10908-TUN1 | SEQ-TUN1.D | 04/18/11 10:18 |
| Calibration Check | 1D10908-CCV1 | SEQ-CCV1.D | 04/18/11 10:37 |
| LCS | 1D14024-BS1 | D14024L1.D | 04/18/11 11:35 |
| Blank | 1D14024-BLK1 | D14024B1.D | 04/18/11 12:03 |
| 05-MW-053 | 1104123-05 | 0412305.D | 04/18/11 12:32 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/18/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 10:18 |
| Sequence: | 1D10908 | Lab Sample ID: | 1D10908-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 51.9 | PASS |
| 68 | Less than 2% of 69 | 1.4 | PASS |
| 69 | Less than 200% of 198 | 52.9 | PASS |
| 70 | Less than 2% of 69 | 0.465 | PASS |
| 127 | 40 - 60% of 198 | 57.6 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.7 | PASS |
| 275 | 10 - 30% of 198 | 26.6 | PASS |
| 365 | 1 - 200% of 198 | 3.8 | PASS |
| 441 | 0.001 - 100% of 443 | 81.7 | PASS |
| 442 | 40 - 200% of 198 | 132 | PASS |
| 443 | 17 - 23% of 442 | 19.9 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1061004 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 02/28/11 19:58 |
| Sequence: | 1D10908 | Injection Date: | 04/18/11 |
| Lab Sample ID: | 1D10908-CCV1 | Injection Time: | 10:37 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.068 | 0.8277096 | 0.838891 | | 1.4 | 20 |
| Acenaphthylene | A | 5.000 | 5.316 | 1.235702 | 1.313912 | | 6.3 | 20 |
| Anthracene | A | 5.000 | 5.319 | 1.13295 | 1.20519 | | 6.4 | 20 |
| Benzo(a)anthracene | L | 5.000 | 5.263 | 0.8691476 | 0.9697452 | | 5.3 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.298 | 1.056815 | 1.119863 | | 6.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.693 | 1.338014 | 1.255809 | | -6.1 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.179 | 0.9482109 | 0.9821099 | | 3.6 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.708 | 1.2951 | 1.478533 | | 14.2 | 20 |
| Chrysene | A | 5.000 | 5.158 | 0.8791148 | 0.9068655 | | 3.2 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.411 | 0.8237431 | 0.8914152 | | 8.2 | 20 |
| Fluoranthene | A | 5.000 | 5.205 | 1.197097 | 1.246265 | | 4.1 | 20 |
| Fluorene | A | 5.000 | 5.322 | 0.7884623 | 0.8392418 | | 6.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.299 | 1.067942 | 1.131775 | | 6.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.956 | 0.8735331 | 0.8659112 | | -0.9 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.904 | 0.8753044 | 0.8585526 | | -1.9 | 20 |
| Naphthalene | A | 5.000 | 4.695 | 1.363682 | 1.28041 | | -6.1 | 20 |
| Phenanthrene | A | 5.000 | 5.192 | 1.17432 | 1.219405 | | 3.8 | 20 |
| Pyrene | A | 5.000 | 5.264 | 1.206692 | 1.2704 | | 5.3 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.920 | 0.8894126 | 0.8752559 | | -1.6 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.214 | 0.7416898 | 0.7734839 | | 4.3 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11106 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11106-TUN1 | SEQ-TUN2.D | 04/19/11 14:38 |
| Cal Standard | 1D11106-CAL1 | SEQ-CAL1.D | 04/19/11 14:56 |
| Cal Standard | 1D11106-CAL2 | SEQ-CAL2.D | 04/19/11 15:22 |
| Cal Standard | 1D11106-CAL3 | SEQ-CAL3.D | 04/19/11 15:49 |
| Cal Standard | 1D11106-CAL4 | SEQ-CAL4.D | 04/19/11 16:15 |
| Cal Standard | 1D11106-CAL5 | SEQ-CAL5.D | 04/19/11 16:41 |
| Cal Standard | 1D11106-CAL6 | SEQ-CAL6.D | 04/19/11 17:07 |
| Cal Standard | 1D11106-CAL7 | SEQ-CAL7.D | 04/19/11 17:33 |
| Cal Standard | 1D11106-CAL8 | SEQ-CAL8.D | 04/19/11 18:00 |
| Cal Standard | 1D11106-CAL9 | SEQ-CAL9.D | 04/19/11 18:26 |
| Initial Cal Check | 1D11106-ICV1 | SEQ-ICV1.D | 04/19/11 18:52 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/19/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 14:38 |
| Sequence: | 1D11106 | Lab Sample ID: | 1D11106-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 55.9 | PASS |
| 68 | Less than 2% of 69 | 1.42 | PASS |
| 69 | Less than 200% of 198 | 55.6 | PASS |
| 70 | Less than 2% of 69 | 0.506 | PASS |
| 127 | 40 - 60% of 198 | 58.8 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.61 | PASS |
| 275 | 10 - 30% of 198 | 25.1 | PASS |
| 365 | 1 - 200% of 198 | 3.39 | PASS |
| 441 | 0.001 - 100% of 443 | 81.4 | PASS |
| 442 | 40 - 200% of 198 | 116 | PASS |
| 443 | 17 - 23% of 442 | 20 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11 14:56 4/19/11 18:26 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8172941 | 6.002518 | 7.944333 | 0.1047021 | | | CCC (30) | |
| Acenaphthylene | 1.207785 | 7.808994 | 7.734889 | 0.1182522 | | | 15 | |
| Anthracene | 1.161613 | 5.505861 | 9.805778 | 0.100823 | | | 15 | |
| Benzo(a)anthracene | 0.7794695 | 6.254565 | 12.93533 | 6.502969E-02 | | | 15 | |
| Benzo(a)pyrene | 1.060401 | 3.200109 | 14.769 | 4.143849E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.376623 | 14.1471 | 14.326 | 7.995191E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.8408092 | 6.210629 | 16.70156 | 7.861425E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.327054 | 4.862521 | 14.36322 | 0.079314 | | | 15 | |
| Chrysene | 0.7510425 | 7.301878 | 12.98111 | 7.297783E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.7885715 | 9.963425 | 16.36178 | 4.777576E-02 | | | 15 | |
| Fluoranthene | 1.110642 | 2.363902 | 11.19311 | 0.0831072 | | | CCC (30) | |
| Fluorene | 0.806718 | 3.496377 | 8.576445 | 9.781169E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8530656 | 6.095572 | 7.112 | 8.858856E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 0.9694231 | 7.8043 | 16.34633 | 6.789173E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8159287 | 7.985947 | 6.773 | 9.488666E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8312967 | 6.802917 | 6.660333 | 0.1047284 | | | 15 | |
| Naphthalene | 1.267467 | 7.448697 | 5.839111 | 9.533926E-02 | | | 15 | |
| Phenanthrene | 1.148831 | 2.40557 | 9.740667 | 0.1040327 | | | 15 | |
| Pyrene | 1.116922 | 2.023077 | 11.46378 | 7.377866E-02 | | | 15 | |
| Terphenyl-d14 | 0.6997344 | 3.349731 | 11.68256 | 6.766915E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1551379 | 13.70301 | 8.878286 | 0.1225255 | | | 15 | |
| Acenaphthene | 0.8172941 | 6.002518 | 7.944333 | 0.1047021 | | | CCC (30) | |
| Acenaphthylene | 1.207785 | 7.808994 | 7.734889 | 0.1182522 | | | 15 | |
| Anthracene | 1.161613 | 5.505861 | 9.805778 | 0.100823 | | | 15 | |
| Benzo(a)anthracene | 0.7794695 | 6.254565 | 12.93533 | 6.502969E-02 | | | 15 | |
| Benzo(a)pyrene | 1.060401 | 3.200109 | 14.769 | 4.143849E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.376623 | 14.1471 | 14.326 | 7.995191E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.8408092 | 6.210629 | 16.70156 | 7.861425E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.327054 | 4.862521 | 14.36322 | 0.079314 | | | 15 | |
| Chrysene | 0.7510425 | 7.301878 | 12.98111 | 7.297783E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.7885715 | 9.963425 | 16.36178 | 4.777576E-02 | | | 15 | |
| Fluoranthene | 1.110642 | 2.363902 | 11.19311 | 0.0831072 | | | CCC (30) | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11 14:56 4/19/11 18:26 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Fluorene | 0.806718 | 3.496377 | 8.576445 | 9.781169E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8530656 | 6.095572 | 7.112 | 8.858856E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 0.9694231 | 7.8043 | 16.34633 | 6.789173E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8159287 | 7.985947 | 6.773 | 9.488666E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8312967 | 6.802917 | 6.660333 | 0.1047284 | | | 15 | |
| Naphthalene | 1.267467 | 7.448697 | 5.839111 | 9.533926E-02 | | | 15 | |
| Phenanthrene | 1.148831 | 2.40557 | 9.740667 | 0.1040327 | | | 15 | |
| Pyrene | 1.116922 | 2.023077 | 11.46378 | 7.377866E-02 | | | 15 | |
| Terphenyl-d14 | 0.6997344 | 3.349731 | 11.68256 | 6.766915E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1551379 | 13.70301 | 8.878286 | 0.1225255 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11106 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11106-ICV1 | Injection Time: | 18:52 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.145 | 0.8172941 | 0.8409406 | | 2.9 | 20 |
| Acenaphthylene | A | 5.000 | 5.694 | 1.207785 | 1.375521 | | 13.9 | 20 |
| Anthracene | A | 5.000 | 5.601 | 1.161613 | 1.301226 | | 12.0 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.940 | 0.7794695 | 0.7701215 | | -1.2 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.489 | 1.060401 | 1.16413 | | 9.8 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.261 | 1.376623 | 1.448551 | | 5.2 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.469 | 0.8408092 | 0.9196673 | | 9.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.499 | 1.327054 | 1.459622 | | 10.0 | 20 |
| Chrysene | A | 5.000 | 5.270 | 0.7510425 | 0.7915565 | | 5.4 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.291 | 0.7885715 | 0.8344072 | | 5.8 | 20 |
| Fluoranthene | A | 5.000 | 5.358 | 1.110642 | 1.190233 | | 7.2 | 20 |
| Fluorene | A | 5.000 | 5.368 | 0.806718 | 0.866153 | | 7.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.582 | 0.9694231 | 1.082169 | | 11.6 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.107 | 0.8159287 | 0.8334349 | | 2.1 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.373 | 0.8312967 | 0.8933577 | | 7.5 | 20 |
| Naphthalene | A | 5.000 | 5.542 | 1.267467 | 1.404988 | | 10.9 | 20 |
| Phenanthrene | A | 5.000 | 5.465 | 1.148831 | 1.255674 | | 9.3 | 20 |
| Pyrene | A | 5.000 | 5.443 | 1.116922 | 1.21582 | | 8.9 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.807 | 0.8530656 | 0.9907614 | | 16.1 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.562 | 0.6997344 | 0.7783563 | | 11.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11503 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11503-TUN1 | SEQ-TUN1.D | 04/23/11 12:45 |
| Calibration Check | 1D11503-CCV1 | SEQ-CCV1.D | 04/23/11 13:03 |
| LCS | 1D18014-BS1 | D18014L1.D | 04/23/11 13:55 |
| Blank | 1D18014-BLK1 | D18014B1.D | 04/23/11 14:20 |
| 05-SS-051-0204 | 1104123-01 | 0412301.D | 04/23/11 23:00 |
| 05-SS-052-0204 | 1104123-02 | 0412302.D | 04/23/11 23:25 |
| 05-SS-054-0204 | 1104123-04 | 0412304.D | 04/23/11 23:51 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/23/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:45 |
| Sequence: | 1D11503 | Lab Sample ID: | 1D11503-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.7 | PASS |
| 68 | Less than 2% of 69 | 1.59 | PASS |
| 69 | Less than 200% of 198 | 50.6 | PASS |
| 70 | Less than 2% of 69 | 0.546 | PASS |
| 127 | 40 - 60% of 198 | 54.4 | PASS |
| 197 | Less than 1% of 198 | 0.0173 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.77 | PASS |
| 275 | 10 - 30% of 198 | 28.9 | PASS |
| 365 | 1 - 200% of 198 | 4.3 | PASS |
| 441 | 0.001 - 100% of 443 | 84 | PASS |
| 442 | 40 - 200% of 198 | 159 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11503 | Injection Date: | 04/23/11 |
| Lab Sample ID: | 1D11503-CCV1 | Injection Time: | 13:03 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.482 | 0.8172941 | 0.7326331 | | -10.4 | 20 |
| Acenaphthylene | A | 5.000 | 4.701 | 1.207785 | 1.135528 | | -6.0 | 20 |
| Anthracene | A | 5.000 | 5.051 | 1.161613 | 1.173526 | | 1.0 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.129 | 0.7794695 | 0.7996215 | | 2.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.719 | 1.060401 | 1.000759 | | -5.6 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.138 | 1.376623 | 1.139447 | | -17.2 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.110 | 0.8408092 | 0.6911002 | | -17.8 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.958 | 1.327054 | 1.315878 | | -0.8 | 20 |
| Chrysene | A | 5.000 | 5.604 | 0.7510425 | 0.8417467 | | 12.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.472 | 0.7885715 | 0.7052772 | | -10.6 | 20 |
| Fluoranthene | A | 5.000 | 5.045 | 1.110642 | 1.120728 | | 0.9 | 20 |
| Fluorene | A | 5.000 | 4.846 | 0.806718 | 0.7818377 | | -3.1 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.502 | 0.9694231 | 0.8728747 | | -10.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.467 | 0.8159287 | 0.7288973 | | -10.7 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.564 | 0.8312967 | 0.7588245 | | -8.7 | 20 |
| Naphthalene | A | 5.000 | 4.353 | 1.267467 | 1.103514 | | -12.9 | 20 |
| Phenanthrene | A | 5.000 | 4.869 | 1.148831 | 1.118711 | | -2.6 | 20 |
| Pyrene | A | 5.000 | 5.215 | 1.116922 | 1.164925 | | 4.3 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.517 | 0.8530656 | 0.770719 | | -9.7 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.005 | 0.6997344 | 0.700503 | | 0.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11510 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11510-TUN1 | SEQ-TUN2.D | 04/24/11 00:20 |
| Calibration Check | 1D11510-CCV1 | SEQ-CCV2.D | 04/24/11 00:39 |
| IDW Drums | 1104159-06 | 0415906R.D | 04/24/11 11:24 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/24/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 00:20 |
| Sequence: | 1D11510 | Lab Sample ID: | 1D11510-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 46.1 | PASS |
| 68 | Less than 2% of 69 | 1.43 | PASS |
| 69 | Less than 200% of 198 | 45.7 | PASS |
| 70 | Less than 2% of 69 | 0.517 | PASS |
| 127 | 40 - 60% of 198 | 55.5 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.74 | PASS |
| 275 | 10 - 30% of 198 | 26.8 | PASS |
| 365 | 1 - 200% of 198 | 3.83 | PASS |
| 441 | 0.001 - 100% of 443 | 82.3 | PASS |
| 442 | 40 - 200% of 198 | 129 | PASS |
| 443 | 17 - 23% of 442 | 20 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV2.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11510 | Injection Date: | 04/24/11 |
| Lab Sample ID: | 1D11510-CCV1 | Injection Time: | 00:39 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.363 | 0.8172941 | 0.7132151 | | -12.7 | 20 |
| Acenaphthylene | A | 5.000 | 4.673 | 1.207785 | 1.128768 | | -6.5 | 20 |
| Anthracene | A | 5.000 | 4.831 | 1.161613 | 1.122341 | | -3.4 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.500 | 0.7794695 | 0.7014568 | | -10.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.751 | 1.060401 | 1.007691 | | -5.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.559 | 1.376623 | 1.255287 | | -8.8 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.037 | 0.8408092 | 0.6788991 | | -19.3 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.324 | 1.327054 | 1.412996 | | 6.5 | 20 |
| Chrysene | A | 5.000 | 4.926 | 0.7510425 | 0.7399179 | | -1.5 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.366 | 0.7885715 | 0.6886344 | | -12.7 | 20 |
| Fluoranthene | A | 5.000 | 4.809 | 1.110642 | 1.068264 | | -3.8 | 20 |
| Fluorene | A | 5.000 | 4.779 | 0.806718 | 0.7710695 | | -4.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.356 | 0.9694231 | 0.8445669 | | -12.9 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.277 | 0.8159287 | 0.6978971 | | -14.5 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.486 | 0.8312967 | 0.7458392 | | -10.3 | 20 |
| Naphthalene | A | 5.000 | 4.341 | 1.267467 | 1.100431 | | -13.2 | 20 |
| Phenanthrene | A | 5.000 | 4.779 | 1.148831 | 1.098117 | | -4.4 | 20 |
| Pyrene | A | 5.000 | 4.888 | 1.116922 | 1.092024 | | -2.2 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.423 | 0.8530656 | 0.7546872 | | -11.5 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.760 | 0.6997344 | 0.6661538 | | -4.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11513 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11513-TUN1 | SEQ-TUN3.D | 04/24/11 11:53 |
| Calibration Check | 1D11513-CCV1 | SEQ-CCV3.D | 04/24/11 12:11 |
| 05-SS-029-0204 | 1104123-06 | 0412306.D | 04/24/11 12:36 |
| 05-SS-089-0406 | 1104123-08 | 0412308.D | 04/24/11 13:01 |
| 05-SS-095-0204 | 1104159-01 | 0415901.D | 04/24/11 13:26 |
| 05-SS-096-0204 | 1104159-02 | 0415902.D | 04/24/11 13:51 |
| 05-SS-090-0204 | 1104123-07 | 0412307.D | 04/24/11 14:16 |
| 05-SS-088-0406 | 1104123-09 | 0412309.D | 04/24/11 14:40 |
| 05-SS-097-0204 | 1104159-03 | 0415903.D | 04/24/11 15:05 |
| 05-SS-098-0204 | 1104159-04 | 0415904.D | 04/24/11 15:30 |
| 05-SS-053-0002 | 1104123-03 | 0412303.D | 04/24/11 15:55 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN3.D | Injection Date: | 04/24/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 11:53 |
| Sequence: | 1D11513 | Lab Sample ID: | 1D11513-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 45.5 | PASS |
| 68 | Less than 2% of 69 | 1.49 | PASS |
| 69 | Less than 200% of 198 | 46 | PASS |
| 70 | Less than 2% of 69 | 0.396 | PASS |
| 127 | 40 - 60% of 198 | 53.6 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.83 | PASS |
| 275 | 10 - 30% of 198 | 27.1 | PASS |
| 365 | 1 - 200% of 198 | 4.03 | PASS |
| 441 | 0.001 - 100% of 443 | 84 | PASS |
| 442 | 40 - 200% of 198 | 131 | PASS |
| 443 | 17 - 23% of 442 | 19.9 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV3.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11513 | Injection Date: | 04/24/11 |
| Lab Sample ID: | 1D11513-CCV1 | Injection Time: | 12:11 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.437 | 0.8172941 | 0.7252296 | | -11.3 | 20 |
| Acenaphthylene | A | 5.000 | 4.728 | 1.207785 | 1.14197 | | -5.4 | 20 |
| Anthracene | A | 5.000 | 5.017 | 1.161613 | 1.165566 | | 0.3 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.878 | 0.7794695 | 0.7605387 | | -2.4 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.865 | 1.060401 | 1.031805 | | -2.7 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.373 | 1.376623 | 1.204043 | | -12.5 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.527 | 0.8408092 | 0.7613144 | | -9.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.048 | 1.327054 | 1.339719 | | 1.0 | 20 |
| Chrysene | A | 5.000 | 5.322 | 0.7510425 | 0.7993452 | | 6.4 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.966 | 0.7885715 | 0.7831316 | | -0.7 | 20 |
| Fluoranthene | A | 5.000 | 4.993 | 1.110642 | 1.109026 | | -0.1 | 20 |
| Fluorene | A | 5.000 | 4.778 | 0.806718 | 0.7709901 | | -4.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.973 | 0.9694231 | 0.9641309 | | -0.5 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.485 | 0.8159287 | 0.7318249 | | -10.3 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.588 | 0.8312967 | 0.7628176 | | -8.2 | 20 |
| Naphthalene | A | 5.000 | 4.494 | 1.267467 | 1.139212 | | -10.1 | 20 |
| Phenanthrene | A | 5.000 | 4.815 | 1.148831 | 1.106333 | | -3.7 | 20 |
| Pyrene | A | 5.000 | 4.989 | 1.116922 | 1.114405 | | -0.2 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.537 | 0.8530656 | 0.7741169 | | -9.3 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.807 | 0.6997344 | 0.6727889 | | -3.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** CTOJM26_007

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid **Instrument:** GL-GCFID2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |
| | 0.170 | 0.680 | mg/L | FLPRO |
| | 0.170 | 0.510 | mg/Kg | FLPRO |

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-051-0204 | 04/10/11 13:15 | 04/12/11 08:45 | 04/19/11 10:15 | 8.92 | 14.00 | 04/20/11 07:08 | 0.87 | 40.00 | |
| 05-SS-052-0204 | 04/10/11 13:40 | 04/12/11 08:45 | 04/19/11 10:15 | 8.90 | 14.00 | 04/20/11 09:15 | 0.96 | 40.00 | |
| 05-SS-053-0002 | 04/10/11 13:55 | 04/12/11 08:45 | 04/19/11 10:15 | 8.89 | 14.00 | 04/20/11 09:57 | 0.99 | 40.00 | |
| 05-SS-054-0204 | 04/10/11 15:15 | 04/12/11 08:45 | 04/19/11 10:15 | 8.83 | 14.00 | 04/20/11 10:39 | 1.02 | 40.00 | |
| 05-MW-053 | 04/10/11 14:30 | 04/12/11 08:45 | 04/15/11 12:03 | 4.94 | 7.00 | 04/17/11 18:37 | 2.27 | 40.00 | |
| 05-SS-029-0204 | 04/10/11 15:50 | 04/12/11 08:45 | 04/19/11 10:15 | 8.81 | 14.00 | 04/20/11 11:22 | 1.05 | 40.00 | |
| 05-SS-090-0204 | 04/10/11 16:15 | 04/12/11 08:45 | 04/19/11 10:15 | 8.79 | 14.00 | 04/20/11 12:04 | 1.08 | 40.00 | |
| 05-SS-089-0406 | 04/10/11 16:35 | 04/12/11 08:45 | 04/19/11 10:15 | 8.78 | 14.00 | 04/20/11 12:47 | 1.11 | 40.00 | |
| 05-SS-088-0406 | 04/10/11 17:05 | 04/12/11 08:45 | 04/19/11 10:15 | 8.76 | 14.00 | 04/20/11 13:29 | 1.13 | 40.00 | |
| 05-SS-095-0204 | 04/12/11 08:00 | 04/13/11 08:30 | 04/19/11 10:15 | 7.14 | 14.00 | 04/20/11 14:11 | 1.16 | 40.00 | |
| 05-SS-096-0204 | 04/12/11 08:35 | 04/13/11 08:30 | 04/19/11 10:15 | 7.11 | 14.00 | 04/20/11 14:54 | 1.19 | 40.00 | |
| 05-SS-097-0204 | 04/12/11 09:20 | 04/13/11 08:30 | 04/19/11 10:15 | 7.08 | 14.00 | 04/20/11 16:18 | 1.25 | 40.00 | |
| 05-SS-098-0204 | 04/12/11 09:25 | 04/13/11 08:30 | 04/19/11 10:15 | 7.08 | 14.00 | 04/20/11 17:01 | 1.28 | 40.00 | |
| IDW Drums | 04/12/11 10:00 | 04/13/11 08:30 | 04/15/11 12:03 | 3.09 | 7.00 | 04/18/11 06:38 | 2.77 | 40.00 | |

# PREPARATION BATCH SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D14023 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-053 | 1104123-05 | 04/15/11 12:03 | 1,020.00 | 2.00 |
| IDW Drums | 1104159-06 | 04/15/11 12:03 | 900.00 | 2.00 |
| Blank | 1D14023-BLK1 | 04/15/11 12:03 | 1,000.00 | 2.00 |
| LCS | 1D14023-BS1 | 04/15/11 12:03 | 1,000.00 | 2.00 |
| IDW Drums | 1D14023-MS2 | 04/15/11 12:03 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D14023-BLK1 | File ID: | 003F0301.D |
| Sampled: | | Prepared: | | Analyzed: | 04/17/11 15:05 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1D14023 Sequence: 1D10804 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.03764 | 75.3 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.03255 | 65.1 | 82 - 142 | |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D16001 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-051-0204 | 1104123-01 | 04/19/11 10:15 | 15.30 | 2.00 |
| 05-SS-052-0204 | 1104123-02 | 04/19/11 10:15 | 15.00 | 2.00 |
| 05-SS-053-0002 | 1104123-03 | 04/19/11 10:15 | 15.30 | 2.00 |
| 05-SS-054-0204 | 1104123-04 | 04/19/11 10:15 | 15.20 | 2.00 |
| 05-SS-029-0204 | 1104123-06 | 04/19/11 10:15 | 15.70 | 2.00 |
| 05-SS-090-0204 | 1104123-07 | 04/19/11 10:15 | 15.10 | 2.00 |
| 05-SS-089-0406 | 1104123-08 | 04/19/11 10:15 | 15.70 | 2.00 |
| 05-SS-088-0406 | 1104123-09 | 04/19/11 10:15 | 15.20 | 2.00 |
| 05-SS-095-0204 | 1104159-01 | 04/19/11 10:15 | 15.00 | 2.00 |
| 05-SS-096-0204 | 1104159-02 | 04/19/11 10:15 | 15.60 | 2.00 |
| 05-SS-097-0204 | 1104159-03 | 04/19/11 10:15 | 15.20 | 2.00 |
| 05-SS-098-0204 | 1104159-04 | 04/19/11 10:15 | 15.10 | 2.00 |
| Blank | 1D16001-BLK1 | 04/19/11 10:15 | 15.00 | 2.00 |
| LCS | 1D16001-BS1 | 04/19/11 10:15 | 15.00 | 2.00 |
| 05-SS-051-0204 | 1D16001-MS1 | 04/19/11 10:15 | 15.00 | 2.00 |
| 05-SS-051-0204 | 1D16001-MSD1 | 04/19/11 10:15 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D16001-BLK1 | File ID: | 031F3101.D |
| Sampled: | | Prepared: | | Analyzed: | 04/20/11 05:43 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.140 | 64.2 | 50 - 150 | |
| o-Terphenyl | 3.333 | 1.897 | 56.9 | 35 - 140 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| Cal Standard | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| Cal Standard | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| Cal Standard | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| Cal Standard | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| Cal Standard | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |
| Initial Cal Check | 1D10403-ICV1 | 009F0701.D | 04/13/11 19:46 |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10804 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D10804-CCV1 | 002F0201.D | 04/17/11 14:23 |
| Blank | 1D14023-BLK1 | 003F0301.D | 04/17/11 15:05 |
| LCS | 1D14023-BS1 | 004F0401.D | 04/17/11 15:47 |
| 05-MW-053 | 1104123-05 | 008F0801.D | 04/17/11 18:37 |
| Calibration Check | 1D10804-CCV2 | 015F1501.D | 04/17/11 23:34 |
| IDW Drums | 1104159-06 | 025F2501.D | 04/18/11 06:38 |
| IDW Drums | 1D14023-MS2 | 026F2601.D | 04/18/11 07:20 |
| Calibration Check | 1D10804-CCV3 | 027F2701.D | 04/18/11 08:02 |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11108 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D11108-CCV1 | 002F0201.D | 04/19/11 09:11 |
| Calibration Check | 1D11108-CCV2 | 017F1701.D | 04/19/11 19:50 |
| Calibration Check | 1D11108-CCV3 | 030F3001.D | 04/20/11 05:01 |
| Blank | 1D16001-BLK1 | 031F3101.D | 04/20/11 05:43 |
| LCS | 1D16001-BS1 | 032F3201.D | 04/20/11 06:25 |
| 05-SS-051-0204 | 1104123-01 | 033F3301.D | 04/20/11 07:08 |
| 05-SS-051-0204 | 1D16001-MS1 | 034F3401.D | 04/20/11 07:50 |
| 05-SS-051-0204 | 1D16001-MSD1 | 035F3501.D | 04/20/11 08:32 |
| 05-SS-052-0204 | 1104123-02 | 036F3601.D | 04/20/11 09:15 |
| 05-SS-053-0002 | 1104123-03 | 037F3701.D | 04/20/11 09:57 |
| 05-SS-054-0204 | 1104123-04 | 038F3801.D | 04/20/11 10:39 |
| 05-SS-029-0204 | 1104123-06 | 039F3901.D | 04/20/11 11:22 |
| 05-SS-090-0204 | 1104123-07 | 040F4001.D | 04/20/11 12:04 |
| 05-SS-089-0406 | 1104123-08 | 041F4101.D | 04/20/11 12:47 |
| 05-SS-088-0406 | 1104123-09 | 042F4201.D | 04/20/11 13:29 |
| 05-SS-095-0204 | 1104159-01 | 043F4301.D | 04/20/11 14:11 |
| 05-SS-096-0204 | 1104159-02 | 044F4401.D | 04/20/11 14:54 |
| Calibration Check | 1D11108-CCV4 | 045F4501.D | 04/20/11 15:36 |
| 05-SS-097-0204 | 1104159-03 | 046F4601.D | 04/20/11 16:18 |
| 05-SS-098-0204 | 1104159-04 | 047F4701.D | 04/20/11 17:01 |
| Calibration Check | 1D11108-CCV5 | 056F5601.D | 04/20/11 23:22 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | | |
|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 | |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley | |
| Calibration: | 1104001 | Instrument: | GL-GCFID2 | |
| Matrix: | Water | Calibration Dates: | 4/13/11 15:31 | 4/13/11 19:04 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1688.919 | 5.182621 | 2.923 | 2.565533E-02 | | | 20 | |
| 2-Fluorobiphenyl | 2920.489 | 12.42221 | 10.68433 | 0.709301 | | | 20 | |
| o-Terphenyl | 3802.792 | 5.518154 | 16.28583 | 7.880568E-02 | | | 20 | |
| Petroleum Range Organics | 1688.919 | 5.182621 | 2.923 | 2.565533E-02 | | | 20 | |
| 2-Fluorobiphenyl | 2920.489 | 12.42221 | 10.68433 | 0.709301 | | | 20 | |
| o-Terphenyl | 3802.792 | 5.518154 | 16.28583 | 7.880568E-02 | | | 20 | |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 009F0701.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10403 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10403-ICV1 | Injection Time: | 19:46 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4522 | 1688.919 | 1909.501 | | 13.1 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10804 | Injection Date: | 04/17/11 |
| Lab Sample ID: | 1D10804-CCV1 | Injection Time: | 14:23 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3749 | 1688.919 | 1490.004 | | -11.8 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 21.47 | 2920.489 | 2508.16 | | -14.1 | 25 |
| o-Terphenyl | A | 25.00 | 21.63 | 3802.792 | 3290.84 | | -13.5 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 015F1501.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10804 | Injection Date: | 04/17/11 |
| Lab Sample ID: | 1D10804-CCV2 | Injection Time: | 23:34 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3843 | 1688.919 | 1527.206 | | -9.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 22.29 | 2920.489 | 2604.2 | | -10.8 | 25 |
| o-Terphenyl | A | 25.00 | 22.32 | 3802.792 | 3395.6 | | -10.7 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 027F2701.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10804 | Injection Date: | 04/18/11 |
| Lab Sample ID: | 1D10804-CCV3 | Injection Time: | 08:02 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3996 | 1688.919 | 1587.873 | | -6.0 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.25 | 2920.489 | 2716.36 | | -7.0 | 25 |
| o-Terphenyl | A | 25.00 | 23.14 | 3802.792 | 3520.24 | | -7.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11108-CCV1 | Injection Time: | 09:11 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3785 | 1688.919 | 1504.083 | | -10.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 22.21 | 2920.489 | 2594.64 | | -11.2 | 25 |
| o-Terphenyl | A | 25.00 | 22.09 | 3802.792 | 3360.36 | | -11.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 017F1701.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11108-CCV2 | Injection Time: | 19:50 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4013 | 1688.919 | 1594.634 | | -5.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.26 | 2920.489 | 2717.92 | | -6.9 | 25 |
| o-Terphenyl | A | 25.00 | 24.34 | 3802.792 | 3703.12 | | -2.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 030F3001.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/20/11 |
| Lab Sample ID: | 1D11108-CCV3 | Injection Time: | 05:01 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4166 | 1688.919 | 1655.591 | | -2.0 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.35 | 2920.489 | 2728.28 | | -6.6 | 25 |
| o-Terphenyl | A | 25.00 | 23.59 | 3802.792 | 3588.28 | | -5.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 045F4501.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/20/11 |
| Lab Sample ID: | 1D11108-CCV4 | Injection Time: | 15:36 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3924 | 1688.919 | 1559.511 | | -7.7 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 21.93 | 2920.489 | 2562.04 | | -12.3 | 25 |
| o-Terphenyl | A | 25.00 | 23.92 | 3802.792 | 3639.04 | | -4.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 056F5601.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/20/11 |
| Lab Sample ID: | 1D11108-CCV5 | Injection Time: | 23:22 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3935 | 1688.919 | 1563.746 | | -7.4 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 21.08 | 2920.489 | 2462.04 | | -15.7 | 25 |
| o-Terphenyl | A | 25.00 | 23.83 | 3802.792 | 3625.32 | | -4.7 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC
**SDG:** CTOJM26_007
**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTO JM26 Saufley
**Matrix:** Water
**Instrument:** ME-ICP

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Lead | 1.50 | 3.00 | ug/L | SW6010C |

# INITIAL AND CONTINUING CALIBRATION CHECK

## SW6010C

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP

SDG: CTOJM26_007
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1110005
Sequence: 1D11034

| Lab Sample ID | Analyte | True | Found | %R | Units | Control Limit |
|---|---|---|---|---|---|---|
| 1D11034-ICV1 | Lead | 1000 | 965.6 | 96.6 | ug/L | +/- 10.00% |
| 1D11034-CCV1 | Lead | 1000 | 969.0 | 96.9 | ug/L | +/- 10.00% |
| 1D11034-CCV5 | Lead | 1000 | 948.9 | 94.9 | ug/L | +/- 10.00% |
| 1D11034-CCV6 | Lead | 1000 | 955.2 | 95.5 | ug/L | +/- 10.00% |
| 1D11034-CCV7 | Lead | 1000 | 948.2 | 94.8 | ug/L | +/- 10.00% |

# CRDL STANDARD

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1110005

Sequence: 1D11034

| Lab Sample ID | Analyte | True | Found | %R | Units | QC Limts |
|---|---|---|---|---|---|---|
| 1D11034-CRL2 | Lead | 3.000 | 2.484 | 82.8 | ug/L | 80 - 120 |

# PREPARATION BATCH SUMMARY

## SW6010C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D19002 Batch Matrix: Water Preparation: MET_3005A

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-MW-053 | 1104123-05 | 04/19/11 07:35 | 50.00 | 50.00 |
| Blank | 1D19002-BLK1 | 04/19/11 07:35 | 50.00 | 50.00 |
| LCS | 1D19002-BS1 | 04/19/11 07:35 | 50.00 | 50.00 |

# BLANKS
## SW6010C

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_007
Client: Tetra Tech NUS, Inc. (T010)
Instrument ID: ME-ICP
Project: NAS Pensacola CTO JM26 Saufley
Sequence: 1D11034
Calibration: 1110005

| Lab Sample ID | Analyte | Found | MDL | MRL | Units | C | Method |
|---|---|---|---|---|---|---|---|
| 1D11034-ICB1 | Lead | -0.2524 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11034-CCB1 | Lead | -0.412 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11034-CCB5 | Lead | -0.445 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D19002-BLK1 | Lead | -0.761 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11034-CCB6 | Lead | -0.158 | 1.50 | 3.00 | ug/L | U | SW6010C |
| 1D11034-CCB7 | Lead | -0.337 | 1.50 | 3.00 | ug/L | U | SW6010C |

# ICP INTERFERENCE CHECK SAMPLE

## SW6010C

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_007

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Instrument ID: ME-ICP

Calibration: 1110005

Sequence: 1D11034

| Lab Sample ID | Analyte | True | Found | %R | Units |
|---|---|---|---|---|---|
| 1D11034-IFA1 | Lead | | 7.95 | | ug/L |
| 1D11034-IFB1 | Lead | 50.00 | 52.87 | 106 | ug/L |

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_007

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Al | Ca | Fe | Mg | Ag |
| Lead | 220.3 | 0.0002980 | 0.0000000 | 0.0000080 | 0.0003250 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_007

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | As | B | Ba | Be | Cd |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_007

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Co | Cr | Cu | K | Mn |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0022600 | 0.0000000 | 0.0000990 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_007

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Mo | Na | Ni | Pb | Sb |
| Lead | 220.3 | -0.0026440 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_007

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: | | | | |
|---|---|---|---|---|---|---|
| | | Se | Sn | Ti | Tl | V |
| Lead | 220.3 | 0.0000000 | 0.0000000 | 0.0000000 | 0.0000000 | -0.0000360 |

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Tetra Tech NUS, Inc. (T010)

SDG No.: CTOJM26_007

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 9/11/2009

| Analyte | Wave-length (nm) | Interelement Correction Factors for: Zn | | | | |
|---|---|---|---|---|---|---|
| Lead | 220.3 | 0.0000000 | | | | |

Comments:

FORM XA-IN

# ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Tetra Tech NUS, Inc. (T010) SDG: CTOJM26_007

Project: NAS Pensacola CTO JM26 Saufley

ICP Instrument ID: ME-ICP Date: 09/11/2009

| Analyte | Integ. Time (Sec.) | Concentration ug/L | M |
|---|---|---|---|
| Lead | 15 | 10000 | P |

# ANALYSIS SEQUENCE SUMMARY
## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11034 | Instrument: | ME-ICP |
| Calibration: | 1110005 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D11034-CAL1 | 042011A-001 | 04/20/11 09:34 |
| Cal Standard | 1D11034-CAL2 | 042011A-002 | 04/20/11 09:39 |
| Cal Standard | 1D11034-CAL3 | 042011A-003 | 04/20/11 09:44 |
| Cal Standard | 1D11034-CAL6 | 042011A-006 | 04/20/11 09:59 |
| Initial Cal Check | 1D11034-ICV1 | 042011B-001 | 04/20/11 10:51 |
| Initial Cal Blank | 1D11034-ICB1 | 042011B-002 | 04/20/11 10:58 |
| Instrument RL Check | 1D11034-CRL2 | 042011B-005 | 04/20/11 11:13 |
| Interference Check A | 1D11034-IFA1 | 042011B-006 | 04/20/11 11:17 |
| Interference Check B | 1D11034-IFB1 | 042011B-007 | 04/20/11 11:23 |
| Calibration Check | 1D11034-CCV1 | 042011B-009 | 04/20/11 11:34 |
| Calibration Blank | 1D11034-CCB1 | 042011B-010 | 04/20/11 11:41 |
| Calibration Check | 1D11034-CCV5 | 042011D-011 | 04/20/11 16:05 |
| Calibration Blank | 1D11034-CCB5 | 042011D-012 | 04/20/11 16:12 |
| Blank | 1D19002-BLK1 | 042011D-013 | 04/20/11 16:17 |
| LCS | 1D19002-BS1 | 042011D-014 | 04/20/11 16:22 |
| Calibration Check | 1D11034-CCV6 | 042011D-029 | 04/20/11 17:37 |
| Calibration Blank | 1D11034-CCB6 | 042011D-030 | 04/20/11 17:44 |
| 05-MW-053 | 1104123-05 | 042011D-033 | 04/20/11 17:58 |
| Calibration Check | 1D11034-CCV7 | 042011D-041 | 04/20/11 18:37 |
| Calibration Blank | 1D11034-CCB7 | 042011D-042 | 04/20/11 18:44 |

# INITIAL CALIBRATION DATA (Continued)

## SW6010C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_007 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110005 | Instrument: | ME-ICP |
| Matrix: | Water | Calibration Dates: | 4/20/11 9:34 4/20/11 10:10 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Aluminum | 1.34257E-05 | 66.67738 | 9.68826 | 176.2102 | 1 | | 0.998 | |
| Antimony | 6.13405E-04 | 66.78805 | 11.24007 | 184.7328 | 0.999985 | | 0.998 | |
| Arsenic | 2.634875E-04 | 66.85137 | 9.14919 | 176.1114 | 0.9999767 | | 0.998 | |
| Barium | 9.44195E-03 | 66.77036 | 3.19633 | 137.103 | 0.9999646 | | 0.998 | |
| Beryllium | 1.968675E-03 | 66.93233 | 10.00396 | 185.9072 | 0.9998878 | | 0.998 | |
| Boron | 9.4005E-06 | 66.70141 | 5.620872 | 184.9005 | 0.9999464 | | 0.998 | |
| Cadmium | 0.0112655 | 66.83831 | 3.276718 | 152.2017 | 0.9999264 | | 0.998 | |
| Calcium | 2.775318E-05 | 66.74538 | 4.052527 | 166.7076 | 0.9999846 | | 0.998 | |
| Chromium | 2.6038E-05 | 66.73873 | 13.36742 | 195.2252 | 0.9999971 | | 0.998 | |
| Cobalt | 4.80995E-03 | 66.67174 | 2.47807 | 147.0987 | 0.9999979 | | 0.998 | |
| Copper | 5.974375E-05 | 66.78976 | 1.387982 | 102.6855 | 0.9999907 | | 0.998 | |
| Iron | 9.980951E-06 | 67.10156 | 31.33113 | 193.913 | 0.9999962 | | 0.998 | |
| Lead | 1.05015E-03 | 66.67147 | 5.961223 | 179.9537 | 0.9999996 | | 0.998 | |
| Magnesium | 1.168115E-06 | 66.70768 | 14.45525 | 186.5661 | 0.9999729 | | 0.998 | |
| Manganese | 1.643725E-04 | 66.93897 | 4.87142 | 173.6866 | 0.9999503 | | 0.998 | |
| Molybdenum | 0.0031796 | 66.71221 | 10.24301 | 186.9111 | 0.9999906 | | 0.998 | |
| Nickel | 2.54125E-03 | 66.71998 | 1.681517 | 124.9822 | 0.9999975 | | 0.998 | |
| Potassium | 6.8106E-06 | 67.62205 | 4.402972 | 163.6635 | 0.9999988 | | 0.998 | |
| Selenium | 3.408125E-04 | 66.71818 | 5.340835 | 171.3968 | 0.9999784 | | 0.998 | |
| Silver | 3.7515E-05 | 66.76794 | 3.289747 | 130.9317 | 0.9998613 | | 0.998 | |
| Sodium | 3.08615E-05 | 66.71685 | 4.951525 | 131.4078 | 0.9999759 | | 0.998 | |
| Strontium | 0.0011375 | 66.77024 | 1.3237 | 77.89416 | 0.9999678 | | 0.998 | |
| Thallium | 6.659675E-04 | 66.68208 | 2.614618 | 151.8006 | 0.9999935 | | 0.998 | |
| Tin | 9.87545E-04 | 66.69404 | 33.36887 | 194.7364 | 0.9999572 | | 0.998 | |
| Titanium | 1.5256E-04 | 66.7141 | 6.255733 | 180.0551 | 0.9999923 | | 0.998 | |
| Vanadium | 3.0615E-05 | 66.7547 | 4.316093 | 189.531 | 0.9999911 | | 0.998 | |
| Zinc | 4.298875E-03 | 66.71755 | 21.06829 | 194.1934 | 0.9999791 | | 0.998 | |

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 19, 2011** |
| **FROM:** | **EDWARD SEDLMYER** | **COPIES:** | **DV FILE** |

**SUBJECT:** **ORGANIC DATA VALIDATION- VOA/PAH/FLORIDA-PRO**
**CTO JM26, SAUFLEY**
**SDG CTOJM26_008**

**SAMPLES:** 1/Aqueous/VOC

Trip Blank 9478

12/Soil/ VOC/PAH/FLORIDA-PRO

| | | |
|---|---|---|
| 05-SS-067-0406 | 05-SS-067-0406-D | 05-SS-071-0406 |
| 05-SS-072-0406 | 05-SS-075-0406 | 05-SS-076-0406 |
| 05-SS-077-0406 | 05-SS-091-0204 | 05-SS-091-0204-D |
| 05-SS-092-0204 | 05-SS-093-0204 | 05-SS-094-0204 |

OVERVIEW

The sample set for CTO JM26, Saufley, SDG CTOJM26_008 consists of one (1) trip blank, and twelve (12) soil environmental samples. The following field duplicate pairs were associated with this SDG: 05-SS-067-0406 / 05-SS-067-0406-D and 05-SS-091-0204 / 05-SS-091-0204-D. The samples were analyzed for select volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), and Florida-PRO as outlined above. The trip blank was analyzed for VOCs only.

The samples were collected by TetraTech NUS on April 11, 2011 and analyzed by Empirical Laboratories. All analyses were conducted in accordance with SW-846 Method 8260B, 8270C, and FL-PRO analysis and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
* • GC/MS Tuning
* • Initial and continuing calibration
* • Blank results
* • Field duplicate precision
* • Detection limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Volatiles

No qualification of the data was necessary.

Polynuclear Aromatic Hydrocarbons

No qualification of the data was necessary.

Florida-PRO

No qualification of the data was necessary.

Additional Comments:

Positive results less than the reporting limit (RL) were qualified as estimated "J", due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

**Laboratory Performance Issues:** None.

**Other Factors Affecting Data Quality:** None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS

Edward Sedlmyer
Chemist/Data Validator

Tetra Tech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

**Data Validation Qualifier Codes:**

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$ / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | Trip Blank 9478 | | |
| **SDG: CTOJM26_008** | LAB_ID | 1104165-08 | | |
| **FRACTION: OV** | SAMP_DATE | 4/11/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| BENZENE | | 0.25 | U | |
| ETHYLBENZENE | | 0.25 | U | |
| METHYL TERT-BUTYL ETHER | | 0.25 | U | |
| TOLUENE | | 0.25 | U | |
| TOTAL XYLENES | | 0.75 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-067-0406 | | | 05-SS-067-0406-D | | | 05-SS-071-0406 | | | 05-SS-072-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_008 | LAB_ID | 1104165-02 | | | 1104165-01 | | | 1104165-04 | | | 1104165-03 | | |
| FRACTION: OV | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.7 | | | 89.3 | | | 83.0 | | | 86.9 | | |
| | DUP_OF | | | | 05-SS-067-0406 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00142 | U | | 0.00146 | U | | 0.00163 | U | | 0.00146 | U | |
| ETHYLBENZENE | | 0.00085 | U | | 0.00087 | U | | 0.00097 | U | | 0.00087 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00142 | U | | 0.00146 | U | | 0.00163 | U | | 0.00146 | U | |
| TOLUENE | | 0.00097 | U | | 0.00101 | U | | 0.00112 | U | | 0.001 | U | |
| TOTAL XYLENES | | 0.00426 | U | | 0.00439 | U | | 0.00488 | U | | 0.00437 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-075-0406 | | | 05-SS-076-0406 | | | 05-SS-077-0406 | | | 05-SS-091-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_008 | LAB_ID | 1104165-06 | | | 1104165-05 | | | 1104165-07 | | | 1104165-12 | | |
| FRACTION: OV | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 82.5 | | | 92.4 | | | 93.6 | | | 88.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00149 | U | | 0.00132 | U | | 0.00138 | U | | 0.00113 | U | |
| ETHYLBENZENE | | 0.00089 | U | | 0.00078 | U | | 0.00082 | U | | 0.00068 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00149 | U | | 0.00132 | U | | 0.00138 | U | | 0.00113 | U | |
| TOLUENE | | 0.00102 | U | | 0.0009 | U | | 0.00094 | U | | 0.00078 | U | |
| TOTAL XYLENES | | 0.00446 | U | | 0.00395 | U | | 0.00413 | U | | 0.0034 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-091-0204-D | | | 05-SS-092-0204 | | | 05-SS-093-0204 | | | 05-SS-094-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_008 | LAB_ID | 1104165-11 | | | 1104165-13 | | | 1104165-09 | | | 1104165-10 | | |
| FRACTION: OV | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 85.3 | | | 91.1 | | | 94.4 | | | 94.6 | | |
| | DUP_OF | 05-SS-091-0204 | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| BENZENE | | 0.00142 | U | | 0.00129 | U | | 0.00157 | U | | 0.00132 | U | |
| ETHYLBENZENE | | 0.00084 | U | | 0.00077 | U | | 0.00094 | U | | 0.00079 | U | |
| METHYL TERT-BUTYL ETHER | | 0.00142 | U | | 0.00129 | U | | 0.00157 | U | | 0.00132 | U | |
| TOLUENE | | 0.00097 | U | | 0.00088 | U | | 0.00108 | U | | 0.0009 | U | |
| TOTAL XYLENES | | 0.00425 | U | | 0.00387 | U | | 0.00472 | U | | 0.00396 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-067-0406 | | | 05-SS-067-0406-D | | | 05-SS-071-0406 | | | 05-SS-072-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_008 | LAB_ID | 1104165-02 | | | 1104165-01 | | | 1104165-04 | | | 1104165-03 | | |
| FRACTION: PAH | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.7 | | | 89.3 | | | 83.0 | | | 86.9 | | |
| | DUP_OF | | | | 05-SS-067-0406 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| 2-METHYLNAPHTHALENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| ACENAPHTHENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| ACENAPHTHYLENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| ANTHRACENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| BENZO(A)ANTHRACENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| BENZO(A)PYRENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00674 | J | P |
| BENZO(B)FLUORANTHENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00391 | J | P |
| BENZO(G,H,I)PERYLENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.0033 | J | P |
| BENZO(K)FLUORANTHENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00203 | J | P |
| CHRYSENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00268 | J | P |
| DIBENZO(A,H)ANTHRACENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| FLUORANTHENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00213 | J | P |
| FLUORENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00236 | J | P |
| NAPHTHALENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| PHENANTHRENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |
| PYRENE | | 0.00181 | U | | 0.00181 | U | | 0.00193 | U | | 0.00181 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-075-0406 | | | 05-SS-076-0406 | | | 05-SS-077-0406 | | | 05-SS-091-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_008 | LAB_ID | 1104165-06 | | | 1104165-05 | | | 1104165-07 | | | 1104165-12 | | |
| FRACTION: PAH | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 82.5 | | | 92.4 | | | 93.6 | | | 88.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00195 | U | | 0.00173 | U | | 0.00177 | U | | 0.00182 | U | |
| 2-METHYLNAPHTHALENE | | 0.0022 | J | P | 0.00173 | U | | 0.00177 | U | | 0.00182 | U | |
| ACENAPHTHENE | | 0.00286 | J | P | 0.00173 | U | | 0.00177 | U | | 0.00182 | U | |
| ACENAPHTHYLENE | | 0.0298 | | | 0.0104 | | | 0.00177 | U | | 0.00182 | U | |
| ANTHRACENE | | 0.0361 | | | 0.00226 | J | P | 0.00177 | U | | 0.00182 | U | |
| BENZO(A)ANTHRACENE | | 0.115 | | | 0.0214 | | | 0.00177 | U | | 0.00182 | U | |
| BENZO(A)PYRENE | | 0.106 | | | 0.0387 | | | 0.00177 | U | | 0.00182 | U | |
| BENZO(B)FLUORANTHENE | | 0.148 | | | 0.0412 | | | 0.00177 | U | | 0.00182 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0684 | | | 0.0254 | | | 0.00177 | U | | 0.00182 | U | |
| BENZO(K)FLUORANTHENE | | 0.0501 | | | 0.018 | | | 0.00177 | U | | 0.00182 | U | |
| CHRYSENE | | 0.112 | | | 0.0245 | | | 0.00177 | U | | 0.00182 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0212 | | | 0.00736 | | | 0.00177 | U | | 0.00182 | U | |
| FLUORANTHENE | | 0.267 | | | 0.0214 | | | 0.00177 | U | | 0.00182 | U | |
| FLUORENE | | 0.0216 | | | 0.00173 | U | | 0.00177 | U | | 0.00182 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0604 | | | 0.0208 | | | 0.00177 | U | | 0.00182 | U | |
| NAPHTHALENE | | 0.00355 | J | P | 0.00173 | U | | 0.00177 | U | | 0.00182 | U | |
| PHENANTHRENE | | 0.156 | | | 0.0026 | J | P | 0.00177 | U | | 0.00182 | U | |
| PYRENE | | 0.192 | | | 0.0258 | | | 0.00177 | U | | 0.00182 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-091-0204-D | | | 05-SS-092-0204 | | | 05-SS-093-0204 | | | 05-SS-094-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_008 | LAB_ID | 1104165-11 | | | 1104165-13 | | | 1104165-09 | | | 1104165-10 | | |
| FRACTION: PAH | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 85.3 | | | 91.1 | | | 94.4 | | | 94.6 | | |
| | DUP_OF | 05-SS-091-0204 | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00168 | U | |
| 2-METHYLNAPHTHALENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00168 | U | |
| ACENAPHTHENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00168 | U | |
| ACENAPHTHYLENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00168 | U | |
| ANTHRACENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00168 | U | |
| BENZO(A)ANTHRACENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00909 | | |
| BENZO(A)PYRENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.015 | | |
| BENZO(B)FLUORANTHENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.0154 | | |
| BENZO(G,H,I)PERYLENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00725 | | |
| BENZO(K)FLUORANTHENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00813 | | |
| CHRYSENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.0138 | | |
| DIBENZO(A,H)ANTHRACENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00168 | U | |
| FLUORANTHENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.0192 | | |
| FLUORENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00168 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.0062 | J | P |
| NAPHTHALENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00168 | U | |
| PHENANTHRENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.00779 | | |
| PYRENE | | 0.00191 | U | | 0.00177 | U | | 0.00173 | U | | 0.0164 | | |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-067-0406 | | | 05-SS-067-0406-D | | | 05-SS-071-0406 | | | 05-SS-072-0406 | | |
| **SDG: CTOJM26_008** | LAB_ID | 1104165-02 | | | 1104165-01 | | | 1104165-04 | | | 1104165-03 | | |
| **FRACTION: PET** | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.7 | | | 89.3 | | | 83.0 | | | 86.9 | | |
| | DUP_OF | | | | 05-SS-067-0406 | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.9 | U | | 11.8 | U | | 13.1 | U | | 12.5 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-075-0406 | | | 05-SS-076-0406 | | | 05-SS-077-0406 | | | 05-SS-091-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_008 | LAB_ID | 1104165-06 | | | 1104165-05 | | | 1104165-07 | | | 1104165-12 | | |
| FRACTION: PET | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 82.5 | | | 92.4 | | | 93.6 | | | 88.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.7 | U | | 11.9 | U | | 11.5 | U | | 15.8 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-091-0204-D | | | 05-SS-092-0204 | | | 05-SS-093-0204 | | | 05-SS-094-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: CTOJM26_008 | LAB_ID | 1104165-11 | | | 1104165-13 | | | 1104165-09 | | | 1104165-10 | | |
| FRACTION: PET | SAMP_DATE | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | | 4/11/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 85.3 | | | 91.1 | | | 94.4 | | | 94.6 | | |
| | DUP_OF | 05-SS-091-0204 | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12.7 | U | | 11.9 | U | | 11.6 | U | | 11.2 | U | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**Trip Blank 9478**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | Laboratory ID: | 1104165-08 | File ID: | 0416508.D |
| Sampled: | 04/11/11 00:00 | Prepared: | 04/18/11 00:00 | Analyzed: | 04/18/11 11:25 |
| Solids: | | Preparation: | 5030B | Dilution: | 1 |

Batch: 1D18005 Sequence: 1D10912 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 30.17 | 101 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.87 | 106 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 30.57 | 102 | 70 - 120 | |
| Toluene-d8 | 30.00 | 31.66 | 106 | 85 - 120 | |

# ANALYSIS DATA SHEET

05-SS-067-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-02 | File ID: | 0416502.D |
| Sampled: | 04/11/11 08:15 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 14:47 |
| Solids: | 90.65 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00142 | 0.00284 | 0.00569 | U |
| 100-41-4 | Ethylbenzene | | 0.000853 | 0.00284 | 0.00569 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00142 | 0.00284 | 0.00569 | U |
| 108-88-3 | Toluene | | 0.000978 | 0.00284 | 0.00569 | U |
| 1330-20-7 | Xylenes (total) | | 0.00426 | 0.00853 | 0.0171 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03412 | 0.03555 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03412 | 0.03584 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03412 | 0.03393 | 99.5 | 75 - 140 | |
| Toluene-d8 | 0.03412 | 0.03568 | 105 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-067-0406-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-01 | File ID: | 0416501.D |
| Sampled: | 04/11/11 08:15 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 14:22 |
| Solids: | 89.35 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00146 | 0.00293 | 0.00585 | U |
| 100-41-4 | Ethylbenzene | | 0.000878 | 0.00293 | 0.00585 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00146 | 0.00293 | 0.00585 | U |
| 108-88-3 | Toluene | | 0.00101 | 0.00293 | 0.00585 | U |
| 1330-20-7 | Xylenes (total) | | 0.00439 | 0.00878 | 0.0176 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03512 | 0.03540 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03512 | 0.03717 | 106 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03512 | 0.03540 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03512 | 0.03572 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-071-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-04 | File ID: | 0416504.D |
| Sampled: | 04/11/11 09:20 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 15:36 |
| Solids: | 83.02 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00163 | 0.00325 | 0.00650 | U |
| 100-41-4 | Ethylbenzene | | 0.000976 | 0.00325 | 0.00650 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00163 | 0.00325 | 0.00650 | U |
| 108-88-3 | Toluene | | 0.00112 | 0.00325 | 0.00650 | U |
| 1330-20-7 | Xylenes (total) | | 0.00488 | 0.00976 | 0.0195 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03902 | 0.03971 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03902 | 0.04089 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03902 | 0.04014 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03902 | 0.03929 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-072-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-03 | File ID: | 0416503.D |
| Sampled: | 04/11/11 08:50 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 15:11 |
| Solids: | 86.91 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00146 | 0.00291 | 0.00582 | U |
| 100-41-4 | Ethylbenzene | | 0.000873 | 0.00291 | 0.00582 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00146 | 0.00291 | 0.00582 | U |
| 108-88-3 | Toluene | | 0.00100 | 0.00291 | 0.00582 | U |
| 1330-20-7 | Xylenes (total) | | 0.00437 | 0.00873 | 0.0175 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03494 | 0.03571 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03494 | 0.03667 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03494 | 0.03640 | 104 | 75 - 140 | |
| Toluene-d8 | 0.03494 | 0.03636 | 104 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-075-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-06 | File ID: | 0416506.D |
| Sampled: | 04/11/11 10:20 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 16:25 |
| Solids: | 82.53 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00149 | 0.00298 | 0.00595 | U |
| 100-41-4 | Ethylbenzene | | 0.000893 | 0.00298 | 0.00595 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00149 | 0.00298 | 0.00595 | U |
| 108-88-3 | Toluene | | 0.00102 | 0.00298 | 0.00595 | U |
| 1330-20-7 | Xylenes (total) | | 0.00446 | 0.00893 | 0.0179 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03571 | 0.03675 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03571 | 0.03749 | 105 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03571 | 0.03572 | 100 | 75 - 140 | |
| Toluene-d8 | 0.03571 | 0.03635 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-076-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-05 | File ID: | 0416505.D |
| Sampled: | 04/11/11 09:55 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 16:01 |
| Solids: | 92.42 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00132 | 0.00263 | 0.00526 | U |
| 100-41-4 | Ethylbenzene | | 0.000789 | 0.00263 | 0.00526 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00132 | 0.00263 | 0.00526 | U |
| 108-88-3 | Toluene | | 0.000905 | 0.00263 | 0.00526 | U |
| 1330-20-7 | Xylenes (total) | | 0.00395 | 0.00789 | 0.0158 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03158 | 0.03139 | 99.4 | 85 - 120 | |
| Dibromofluoromethane | 0.03158 | 0.03296 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03158 | 0.03255 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03158 | 0.03211 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-077-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-07 | File ID: | 0416507.D |
| Sampled: | 04/11/11 10:45 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 16:50 |
| Solids: | 93.63 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00138 | 0.00275 | 0.00551 | U |
| 100-41-4 | Ethylbenzene | | 0.000826 | 0.00275 | 0.00551 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00138 | 0.00275 | 0.00551 | U |
| 108-88-3 | Toluene | | 0.000947 | 0.00275 | 0.00551 | U |
| 1330-20-7 | Xylenes (total) | | 0.00413 | 0.00826 | 0.0165 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03303 | 0.03337 | 101 | 85 - 120 | |
| Dibromofluoromethane | 0.03303 | 0.03500 | 106 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03303 | 0.03410 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03303 | 0.03453 | 105 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-091-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-12 | File ID: | 0416512.D |
| Sampled: | 04/11/11 12:55 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 18:28 |
| Solids: | 88.70 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00113 | 0.00227 | 0.00454 | U |
| 100-41-4 | Ethylbenzene | | 0.000681 | 0.00227 | 0.00454 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00113 | 0.00227 | 0.00454 | U |
| 108-88-3 | Toluene | | 0.000781 | 0.00227 | 0.00454 | U |
| 1330-20-7 | Xylenes (total) | | 0.00340 | 0.00681 | 0.0136 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.02723 | 0.02786 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.02723 | 0.02967 | 109 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.02723 | 0.02669 | 98.0 | 75 - 140 | |
| Toluene-d8 | 0.02723 | 0.02809 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-091-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-11 | File ID: | 0416511.D |
| Sampled: | 04/11/11 12:55 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 18:03 |
| Solids: | 85.27 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00142 | 0.00283 | 0.00566 | U |
| 100-41-4 | Ethylbenzene | | 0.000849 | 0.00283 | 0.00566 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00142 | 0.00283 | 0.00566 | U |
| 108-88-3 | Toluene | | 0.000974 | 0.00283 | 0.00566 | U |
| 1330-20-7 | Xylenes (total) | | 0.00425 | 0.00849 | 0.0170 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03396 | 0.03538 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03396 | 0.03529 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03396 | 0.03238 | 95.4 | 75 - 140 | |
| Toluene-d8 | 0.03396 | 0.03485 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-092-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-13 | File ID: | 0416513.D |
| Sampled: | 04/11/11 13:20 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 18:52 |
| Solids: | 91.11 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00129 | 0.00258 | 0.00516 | U |
| 100-41-4 | Ethylbenzene | | 0.000774 | 0.00258 | 0.00516 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00129 | 0.00258 | 0.00516 | U |
| 108-88-3 | Toluene | | 0.000887 | 0.00258 | 0.00516 | U |
| 1330-20-7 | Xylenes (total) | | 0.00387 | 0.00774 | 0.0155 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03095 | 0.03173 | 103 | 85 - 120 | |
| Dibromofluoromethane | 0.03095 | 0.03329 | 108 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03095 | 0.03118 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03095 | 0.03144 | 102 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-093-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-09 | File ID: | 0416509.D |
| Sampled: | 04/11/11 12:23 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 17:14 |
| Solids: | 94.42 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00157 | 0.00314 | 0.00629 | U |
| 100-41-4 | Ethylbenzene | | 0.000943 | 0.00314 | 0.00629 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00157 | 0.00314 | 0.00629 | U |
| 108-88-3 | Toluene | | 0.00108 | 0.00314 | 0.00629 | U |
| 1330-20-7 | Xylenes (total) | | 0.00472 | 0.00943 | 0.0189 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03774 | 0.03842 | 102 | 85 - 120 | |
| Dibromofluoromethane | 0.03774 | 0.03934 | 104 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03774 | 0.03879 | 103 | 75 - 140 | |
| Toluene-d8 | 0.03774 | 0.03824 | 101 | 85 - 115 | |

# ANALYSIS DATA SHEET

**05-SS-094-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-10 | File ID: | 0416510.D |
| Sampled: | 04/11/11 12:40 | Prepared: | 04/15/11 00:00 | Analyzed: | 04/15/11 17:39 |
| Solids: | 94.64 | Preparation: | 5035 | Dilution: | 1 |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00132 | 0.00264 | 0.00528 | U |
| 100-41-4 | Ethylbenzene | | 0.000792 | 0.00264 | 0.00528 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00132 | 0.00264 | 0.00528 | U |
| 108-88-3 | Toluene | | 0.000909 | 0.00264 | 0.00528 | U |
| 1330-20-7 | Xylenes (total) | | 0.00396 | 0.00792 | 0.0158 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03170 | 0.03181 | 100 | 85 - 120 | |
| Dibromofluoromethane | 0.03170 | 0.03259 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03170 | 0.03119 | 98.4 | 75 - 140 | |
| Toluene-d8 | 0.03170 | 0.03266 | 103 | 85 - 115 | |

# ANALYSIS DATA SHEET

05-SS-067-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-02 | File ID: | 0416502.D |
| Sampled: | 04/11/11 08:15 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 13:29 |
| Solids: | 90.65 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00181 | 0.00360 | 0.00721 | U |
| 208-96-8 | Acenaphthylene | | 0.00181 | 0.00360 | 0.00721 | U |
| 120-12-7 | Anthracene | | 0.00181 | 0.00360 | 0.00721 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00181 | 0.00360 | 0.00721 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00181 | 0.00360 | 0.00721 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00181 | 0.00360 | 0.00721 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00181 | 0.00360 | 0.00721 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00181 | 0.00360 | 0.00721 | U |
| 218-01-9 | Chrysene | | 0.00181 | 0.00360 | 0.00721 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00181 | 0.00360 | 0.00721 | U |
| 206-44-0 | Fluoranthene | | 0.00181 | 0.00360 | 0.00721 | U |
| 86-73-7 | Fluorene | | 0.00181 | 0.00360 | 0.00721 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00181 | 0.00360 | 0.00721 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00181 | 0.00360 | 0.00721 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00181 | 0.00360 | 0.00721 | U |
| 91-20-3 | Naphthalene | | 0.00181 | 0.00360 | 0.00721 | U |
| 85-01-8 | Phenanthrene | | 0.00181 | 0.00360 | 0.00721 | U |
| 129-00-0 | Pyrene | | 0.00181 | 0.00360 | 0.00721 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.605 | 2.932 | 81.3 | 14 - 129 | |
| Terphenyl-d14 | 3.605 | 3.157 | 87.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-067-0406-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-01 | File ID: | 0416501.D |
| Sampled: | 04/11/11 08:15 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 13:03 |
| Solids: | 89.35 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00181 | 0.00361 | 0.00722 | U |
| 208-96-8 | Acenaphthylene | | 0.00181 | 0.00361 | 0.00722 | U |
| 120-12-7 | Anthracene | | 0.00181 | 0.00361 | 0.00722 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00181 | 0.00361 | 0.00722 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00181 | 0.00361 | 0.00722 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00181 | 0.00361 | 0.00722 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00181 | 0.00361 | 0.00722 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00181 | 0.00361 | 0.00722 | U |
| 218-01-9 | Chrysene | | 0.00181 | 0.00361 | 0.00722 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00181 | 0.00361 | 0.00722 | U |
| 206-44-0 | Fluoranthene | | 0.00181 | 0.00361 | 0.00722 | U |
| 86-73-7 | Fluorene | | 0.00181 | 0.00361 | 0.00722 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00181 | 0.00361 | 0.00722 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00181 | 0.00361 | 0.00722 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00181 | 0.00361 | 0.00722 | U |
| 91-20-3 | Naphthalene | | 0.00181 | 0.00361 | 0.00722 | U |
| 85-01-8 | Phenanthrene | | 0.00181 | 0.00361 | 0.00722 | U |
| 129-00-0 | Pyrene | | 0.00181 | 0.00361 | 0.00722 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.610 | 2.807 | 77.8 | 14 - 129 | |
| Terphenyl-d14 | 3.610 | 3.432 | 95.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-071-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-04 | File ID: | 0416504.D |
| Sampled: | 04/11/11 09:20 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 15:09 |
| Solids: | 83.02 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00193 | 0.00386 | 0.00772 | U |
| 208-96-8 | Acenaphthylene | | 0.00193 | 0.00386 | 0.00772 | U |
| 120-12-7 | Anthracene | | 0.00193 | 0.00386 | 0.00772 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00193 | 0.00386 | 0.00772 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00193 | 0.00386 | 0.00772 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00193 | 0.00386 | 0.00772 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00193 | 0.00386 | 0.00772 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00193 | 0.00386 | 0.00772 | U |
| 218-01-9 | Chrysene | | 0.00193 | 0.00386 | 0.00772 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00193 | 0.00386 | 0.00772 | U |
| 206-44-0 | Fluoranthene | | 0.00193 | 0.00386 | 0.00772 | U |
| 86-73-7 | Fluorene | | 0.00193 | 0.00386 | 0.00772 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00193 | 0.00386 | 0.00772 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00193 | 0.00386 | 0.00772 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00193 | 0.00386 | 0.00772 | U |
| 91-20-3 | Naphthalene | | 0.00193 | 0.00386 | 0.00772 | U |
| 85-01-8 | Phenanthrene | | 0.00193 | 0.00386 | 0.00772 | U |
| 129-00-0 | Pyrene | | 0.00193 | 0.00386 | 0.00772 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.860 | 3.100 | 80.3 | 14 - 129 | |
| Terphenyl-d14 | 3.860 | 3.767 | 97.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-072-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-03 | File ID: | 0416503.D |
| Sampled: | 04/11/11 08:50 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 14:44 |
| Solids: | 86.91 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00181 | 0.00361 | 0.00724 | U |
| 208-96-8 | Acenaphthylene | | 0.00181 | 0.00361 | 0.00724 | U |
| 120-12-7 | Anthracene | | 0.00181 | 0.00361 | 0.00724 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00181 | 0.00361 | 0.00724 | U |
| 50-32-8 | Benzo(a)pyrene | 0.00674 | 0.00181 | 0.00361 | 0.00724 | I |
| 205-99-2 | Benzo(b)fluoranthene | 0.00391 | 0.00181 | 0.00361 | 0.00724 | I |
| 191-24-2 | Benzo(g,h,i)perylene | 0.00330 | 0.00181 | 0.00361 | 0.00724 | I |
| 207-08-9 | Benzo(k)fluoranthene | 0.00203 | 0.00181 | 0.00361 | 0.00724 | I |
| 218-01-9 | Chrysene | 0.00268 | 0.00181 | 0.00361 | 0.00724 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00181 | 0.00361 | 0.00724 | U |
| 206-44-0 | Fluoranthene | 0.00213 | 0.00181 | 0.00361 | 0.00724 | I |
| 86-73-7 | Fluorene | | 0.00181 | 0.00361 | 0.00724 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00236 | 0.00181 | 0.00361 | 0.00724 | I |
| 90-12-0 | 1-Methylnaphthalene | | 0.00181 | 0.00361 | 0.00724 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00181 | 0.00361 | 0.00724 | U |
| 91-20-3 | Naphthalene | | 0.00181 | 0.00361 | 0.00724 | U |
| 85-01-8 | Phenanthrene | | 0.00181 | 0.00361 | 0.00724 | U |
| 129-00-0 | Pyrene | | 0.00181 | 0.00361 | 0.00724 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.618 | 2.965 | 82.0 | 14 - 129 | |
| Terphenyl-d14 | 3.618 | 3.497 | 96.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-075-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-06 | File ID: | 0416506.D |
| Sampled: | 04/11/11 10:20 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 15:59 |
| Solids: | 82.53 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.00286 | 0.00195 | 0.00388 | 0.00777 | I |
| 208-96-8 | Acenaphthylene | 0.0298 | 0.00195 | 0.00388 | 0.00777 | |
| 120-12-7 | Anthracene | 0.0361 | 0.00195 | 0.00388 | 0.00777 | |
| 56-55-3 | Benzo(a)anthracene | 0.115 | 0.00195 | 0.00388 | 0.00777 | |
| 50-32-8 | Benzo(a)pyrene | 0.106 | 0.00195 | 0.00388 | 0.00777 | |
| 205-99-2 | Benzo(b)fluoranthene | 0.148 | 0.00195 | 0.00388 | 0.00777 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.0684 | 0.00195 | 0.00388 | 0.00777 | |
| 207-08-9 | Benzo(k)fluoranthene | 0.0501 | 0.00195 | 0.00388 | 0.00777 | |
| 218-01-9 | Chrysene | 0.112 | 0.00195 | 0.00388 | 0.00777 | |
| 53-70-3 | Dibenz(a,h)anthracene | 0.0212 | 0.00195 | 0.00388 | 0.00777 | |
| 206-44-0 | Fluoranthene | 0.267 | 0.00195 | 0.00388 | 0.00777 | |
| 86-73-7 | Fluorene | 0.0216 | 0.00195 | 0.00388 | 0.00777 | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.0604 | 0.00195 | 0.00388 | 0.00777 | |
| 90-12-0 | 1-Methylnaphthalene | | 0.00195 | 0.00388 | 0.00777 | U |
| 91-57-6 | 2-Methylnaphthalene | 0.00220 | 0.00195 | 0.00388 | 0.00777 | I |
| 91-20-3 | Naphthalene | 0.00355 | 0.00195 | 0.00388 | 0.00777 | I |
| 85-01-8 | Phenanthrene | 0.156 | 0.00195 | 0.00388 | 0.00777 | |
| 129-00-0 | Pyrene | 0.192 | 0.00195 | 0.00388 | 0.00777 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.883 | 3.161 | 81.4 | 14 - 129 | |
| Terphenyl-d14 | 3.883 | 3.967 | 102 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-076-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-05 | File ID: | 0416505.D |
| Sampled: | 04/11/11 09:55 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 15:34 |
| Solids: | 92.42 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00173 | 0.00344 | 0.00690 | U |
| 208-96-8 | Acenaphthylene | 0.0104 | 0.00173 | 0.00344 | 0.00690 | |
| 120-12-7 | Anthracene | 0.00226 | 0.00173 | 0.00344 | 0.00690 | I |
| 56-55-3 | Benzo(a)anthracene | 0.0214 | 0.00173 | 0.00344 | 0.00690 | |
| 50-32-8 | Benzo(a)pyrene | 0.0387 | 0.00173 | 0.00344 | 0.00690 | |
| 205-99-2 | Benzo(b)fluoranthene | 0.0412 | 0.00173 | 0.00344 | 0.00690 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.0254 | 0.00173 | 0.00344 | 0.00690 | |
| 207-08-9 | Benzo(k)fluoranthene | 0.0180 | 0.00173 | 0.00344 | 0.00690 | |
| 218-01-9 | Chrysene | 0.0245 | 0.00173 | 0.00344 | 0.00690 | |
| 53-70-3 | Dibenz(a,h)anthracene | 0.00736 | 0.00173 | 0.00344 | 0.00690 | |
| 206-44-0 | Fluoranthene | 0.0214 | 0.00173 | 0.00344 | 0.00690 | |
| 86-73-7 | Fluorene | | 0.00173 | 0.00344 | 0.00690 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.0208 | 0.00173 | 0.00344 | 0.00690 | |
| 90-12-0 | 1-Methylnaphthalene | | 0.00173 | 0.00344 | 0.00690 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00173 | 0.00344 | 0.00690 | U |
| 91-20-3 | Naphthalene | | 0.00173 | 0.00344 | 0.00690 | U |
| 85-01-8 | Phenanthrene | 0.00260 | 0.00173 | 0.00344 | 0.00690 | I |
| 129-00-0 | Pyrene | 0.0258 | 0.00173 | 0.00344 | 0.00690 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.446 | 2.914 | 84.6 | 14 - 129 | |
| Terphenyl-d14 | 3.446 | 3.465 | 101 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-077-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-07 | File ID: | 0416507.D |
| Sampled: | 04/11/11 10:45 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 16:24 |
| Solids: | 93.63 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00177 | 0.00353 | 0.00708 | U |
| 208-96-8 | Acenaphthylene | | 0.00177 | 0.00353 | 0.00708 | U |
| 120-12-7 | Anthracene | | 0.00177 | 0.00353 | 0.00708 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00177 | 0.00353 | 0.00708 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00177 | 0.00353 | 0.00708 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00177 | 0.00353 | 0.00708 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00177 | 0.00353 | 0.00708 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00177 | 0.00353 | 0.00708 | U |
| 218-01-9 | Chrysene | | 0.00177 | 0.00353 | 0.00708 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00177 | 0.00353 | 0.00708 | U |
| 206-44-0 | Fluoranthene | | 0.00177 | 0.00353 | 0.00708 | U |
| 86-73-7 | Fluorene | | 0.00177 | 0.00353 | 0.00708 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00177 | 0.00353 | 0.00708 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00177 | 0.00353 | 0.00708 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00177 | 0.00353 | 0.00708 | U |
| 91-20-3 | Naphthalene | | 0.00177 | 0.00353 | 0.00708 | U |
| 85-01-8 | Phenanthrene | | 0.00177 | 0.00353 | 0.00708 | U |
| 129-00-0 | Pyrene | | 0.00177 | 0.00353 | 0.00708 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.537 | 2.832 | 80.1 | 14 - 129 | |
| Terphenyl-d14 | 3.537 | 3.445 | 97.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-091-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-12 | File ID: | 0416512.D |
| Sampled: | 04/11/11 12:55 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 17:14 |
| Solids: | 88.70 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00182 | 0.00363 | 0.00728 | U |
| 208-96-8 | Acenaphthylene | | 0.00182 | 0.00363 | 0.00728 | U |
| 120-12-7 | Anthracene | | 0.00182 | 0.00363 | 0.00728 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00182 | 0.00363 | 0.00728 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00182 | 0.00363 | 0.00728 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00182 | 0.00363 | 0.00728 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00182 | 0.00363 | 0.00728 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00182 | 0.00363 | 0.00728 | U |
| 218-01-9 | Chrysene | | 0.00182 | 0.00363 | 0.00728 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00182 | 0.00363 | 0.00728 | U |
| 206-44-0 | Fluoranthene | | 0.00182 | 0.00363 | 0.00728 | U |
| 86-73-7 | Fluorene | | 0.00182 | 0.00363 | 0.00728 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00182 | 0.00363 | 0.00728 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00182 | 0.00363 | 0.00728 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00182 | 0.00363 | 0.00728 | U |
| 91-20-3 | Naphthalene | | 0.00182 | 0.00363 | 0.00728 | U |
| 85-01-8 | Phenanthrene | | 0.00182 | 0.00363 | 0.00728 | U |
| 129-00-0 | Pyrene | | 0.00182 | 0.00363 | 0.00728 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.637 | 2.827 | 77.7 | 14 - 129 | |
| Terphenyl-d14 | 3.637 | 3.341 | 91.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-091-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-11 | File ID: | 0416511.D |
| Sampled: | 04/11/11 12:55 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 17:39 |
| Solids: | 85.27 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00191 | 0.00380 | 0.00762 | U |
| 208-96-8 | Acenaphthylene | | 0.00191 | 0.00380 | 0.00762 | U |
| 120-12-7 | Anthracene | | 0.00191 | 0.00380 | 0.00762 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00191 | 0.00380 | 0.00762 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00191 | 0.00380 | 0.00762 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00191 | 0.00380 | 0.00762 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00191 | 0.00380 | 0.00762 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00191 | 0.00380 | 0.00762 | U |
| 218-01-9 | Chrysene | | 0.00191 | 0.00380 | 0.00762 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00191 | 0.00380 | 0.00762 | U |
| 206-44-0 | Fluoranthene | | 0.00191 | 0.00380 | 0.00762 | U |
| 86-73-7 | Fluorene | | 0.00191 | 0.00380 | 0.00762 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00191 | 0.00380 | 0.00762 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00191 | 0.00380 | 0.00762 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00191 | 0.00380 | 0.00762 | U |
| 91-20-3 | Naphthalene | | 0.00191 | 0.00380 | 0.00762 | U |
| 85-01-8 | Phenanthrene | | 0.00191 | 0.00380 | 0.00762 | U |
| 129-00-0 | Pyrene | | 0.00191 | 0.00380 | 0.00762 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.808 | 3.182 | 83.6 | 14 - 129 | |
| Terphenyl-d14 | 3.808 | 3.725 | 97.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-092-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-13 | File ID: | 0416513.D |
| Sampled: | 04/11/11 13:20 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 14:18 |
| Solids: | 91.11 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00177 | 0.00354 | 0.00709 | U |
| 208-96-8 | Acenaphthylene | | 0.00177 | 0.00354 | 0.00709 | U |
| 120-12-7 | Anthracene | | 0.00177 | 0.00354 | 0.00709 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00177 | 0.00354 | 0.00709 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00177 | 0.00354 | 0.00709 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00177 | 0.00354 | 0.00709 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00177 | 0.00354 | 0.00709 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00177 | 0.00354 | 0.00709 | U |
| 218-01-9 | Chrysene | | 0.00177 | 0.00354 | 0.00709 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00177 | 0.00354 | 0.00709 | U |
| 206-44-0 | Fluoranthene | | 0.00177 | 0.00354 | 0.00709 | U |
| 86-73-7 | Fluorene | | 0.00177 | 0.00354 | 0.00709 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00177 | 0.00354 | 0.00709 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00177 | 0.00354 | 0.00709 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00177 | 0.00354 | 0.00709 | U |
| 91-20-3 | Naphthalene | | 0.00177 | 0.00354 | 0.00709 | U |
| 85-01-8 | Phenanthrene | | 0.00177 | 0.00354 | 0.00709 | U |
| 129-00-0 | Pyrene | | 0.00177 | 0.00354 | 0.00709 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.541 | 2.965 | 83.7 | 14 - 129 | |
| Terphenyl-d14 | 3.541 | 3.465 | 97.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-093-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-09 | File ID: | 0416509.D |
| Sampled: | 04/11/11 12:23 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 13:53 |
| Solids: | 94.42 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00173 | 0.00346 | 0.00693 | U |
| 208-96-8 | Acenaphthylene | | 0.00173 | 0.00346 | 0.00693 | U |
| 120-12-7 | Anthracene | | 0.00173 | 0.00346 | 0.00693 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00173 | 0.00346 | 0.00693 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00173 | 0.00346 | 0.00693 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00173 | 0.00346 | 0.00693 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00173 | 0.00346 | 0.00693 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00173 | 0.00346 | 0.00693 | U |
| 218-01-9 | Chrysene | | 0.00173 | 0.00346 | 0.00693 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00173 | 0.00346 | 0.00693 | U |
| 206-44-0 | Fluoranthene | | 0.00173 | 0.00346 | 0.00693 | U |
| 86-73-7 | Fluorene | | 0.00173 | 0.00346 | 0.00693 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00173 | 0.00346 | 0.00693 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00173 | 0.00346 | 0.00693 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00173 | 0.00346 | 0.00693 | U |
| 91-20-3 | Naphthalene | | 0.00173 | 0.00346 | 0.00693 | U |
| 85-01-8 | Phenanthrene | | 0.00173 | 0.00346 | 0.00693 | U |
| 129-00-0 | Pyrene | | 0.00173 | 0.00346 | 0.00693 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.461 | 2.894 | 83.6 | 14 - 129 | |
| Terphenyl-d14 | 3.461 | 3.382 | 97.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-094-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-10 | File ID: | 0416510.D |
| Sampled: | 04/11/11 12:40 | Prepared: | 04/21/11 13:20 | Analyzed: | 04/26/11 16:49 |
| Solids: | 94.64 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00168 | 0.00334 | 0.00669 | U |
| 208-96-8 | Acenaphthylene | | 0.00168 | 0.00334 | 0.00669 | U |
| 120-12-7 | Anthracene | | 0.00168 | 0.00334 | 0.00669 | U |
| 56-55-3 | Benzo(a)anthracene | 0.00909 | 0.00168 | 0.00334 | 0.00669 | |
| 50-32-8 | Benzo(a)pyrene | 0.0150 | 0.00168 | 0.00334 | 0.00669 | |
| 205-99-2 | Benzo(b)fluoranthene | 0.0154 | 0.00168 | 0.00334 | 0.00669 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.00725 | 0.00168 | 0.00334 | 0.00669 | |
| 207-08-9 | Benzo(k)fluoranthene | 0.00813 | 0.00168 | 0.00334 | 0.00669 | |
| 218-01-9 | Chrysene | 0.0138 | 0.00168 | 0.00334 | 0.00669 | |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00168 | 0.00334 | 0.00669 | U |
| 206-44-0 | Fluoranthene | 0.0192 | 0.00168 | 0.00334 | 0.00669 | |
| 86-73-7 | Fluorene | | 0.00168 | 0.00334 | 0.00669 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00620 | 0.00168 | 0.00334 | 0.00669 | I |
| 90-12-0 | 1-Methylnaphthalene | | 0.00168 | 0.00334 | 0.00669 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00168 | 0.00334 | 0.00669 | U |
| 91-20-3 | Naphthalene | | 0.00168 | 0.00334 | 0.00669 | U |
| 85-01-8 | Phenanthrene | 0.00779 | 0.00168 | 0.00334 | 0.00669 | |
| 129-00-0 | Pyrene | 0.0164 | 0.00168 | 0.00334 | 0.00669 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.344 | 2.815 | 84.2 | 14 - 129 | |
| Terphenyl-d14 | 3.344 | 3.435 | 103 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-067-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-02 | File ID: | 049F4901.D |
| Sampled: | 04/11/11 08:15 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 18:26 |
| Solids: | 90.65 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.605 | 2.453 | 68.0 | 50 - 150 | |
| o-Terphenyl | 3.605 | 2.333 | 64.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-067-0406-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-01 | File ID: | 048F4801.D |
| Sampled: | 04/11/11 08:15 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 17:43 |
| Solids: | 89.35 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.8 | 23.7 | 47.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.587 | 2.242 | 62.5 | 50 - 150 | |
| o-Terphenyl | 3.587 | 2.183 | 60.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-071-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-04 | File ID: | 051F5101.D |
| Sampled: | 04/11/11 09:20 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 19:50 |
| Solids: | 83.02 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 13.1 | 26.1 | 52.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.962 | 2.531 | 63.9 | 50 - 150 | |
| o-Terphenyl | 3.962 | 2.450 | 61.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-072-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-03 | File ID: | 050F5001.D |
| Sampled: | 04/11/11 08:50 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 19:08 |
| Solids: | 86.91 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.5 | 25.0 | 50.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.785 | 2.244 | 59.3 | 50 - 150 | |
| o-Terphenyl | 3.785 | 2.135 | 56.4 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-075-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-06 | File ID: | 053F5301.D |
| Sampled: | 04/11/11 10:20 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 21:15 |
| Solids: | 82.53 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.7 | 25.5 | 50.9 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.859 | 2.345 | 60.8 | 50 - 150 | |
| o-Terphenyl | 3.859 | 2.251 | 58.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-076-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-05 | File ID: | 052F5201.D |
| Sampled: | 04/11/11 09:55 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 20:33 |
| Solids: | 92.42 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.6 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.607 | 2.095 | 58.1 | 50 - 150 | |
| o-Terphenyl | 3.607 | 2.071 | 57.4 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-077-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-07 | File ID: | 013F1301.D |
| Sampled: | 04/11/11 10:45 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/21/11 15:18 |
| Solids: | 93.63 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11214 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.0 | 46.1 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.490 | 1.422 | 40.7 | 50 - 150 | * |
| o-Terphenyl | 3.490 | 1.528 | 43.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-091-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-12 | File ID: | 026F2601.D |
| Sampled: | 04/11/11 12:55 | Prepared: | 04/21/11 13:10 | Analyzed: | 04/23/11 03:58 |
| Solids: | 88.70 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20025 Sequence: 1D11502 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 15.8 | 12.1 | 24.2 | 48.3 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.660 | 2.433 | 66.5 | 50 - 150 | |
| o-Terphenyl | 3.660 | 2.497 | 68.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-091-0204-D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1104165-11 | File ID: | 025F2501.D |
| Sampled: | 04/11/11 12:55 | Prepared: | 04/21/11 13:10 | Analyzed: | 04/23/11 03:16 |
| Solids: | 85.27 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20025 Sequence: 1D11502 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.7 | 25.5 | 50.9 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.858 | 2.564 | 66.5 | 50 - 150 | |
| o-Terphenyl | 3.858 | 2.603 | 67.5 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-092-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-13 | File ID: | 027F2701.D |
| Sampled: | 04/11/11 13:20 | Prepared: | 04/21/11 13:10 | Analyzed: | 04/23/11 04:40 |
| Solids: | 91.11 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D20025 Sequence: 1D11502 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.611 | 2.307 | 63.9 | 50 - 150 | |
| o-Terphenyl | 3.611 | 2.568 | 71.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-093-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-09 | File ID: | 055F5501.D |
| Sampled: | 04/11/11 12:23 | Prepared: | 04/19/11 10:15 | Analyzed: | 04/20/11 22:39 |
| Solids: | 94.42 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.6 | 23.1 | 46.3 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.507 | 2.050 | 58.5 | 50 - 150 | |
| o-Terphenyl | 3.507 | 2.013 | 57.4 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-094-0204

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1104165-10 | File ID: | 024F2401.D |
| Sampled: | 04/11/11 12:40 | Prepared: | 04/21/11 13:10 | Analyzed: | 04/23/11 02:34 |
| Solids: | 94.64 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 1D20025 | Sequence: | 1D11502 | Calibration: | 1104001 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.2 | 22.4 | 44.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.387 | 2.249 | 66.4 | 50 - 150 | |
| o-Terphenyl | 3.387 | 2.368 | 69.9 | 35 - 140 | |

# APPENDIX C

## SUPPORT DOCUMENTATION

# HOLDTIME

**SDG** CTOJM26_008

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| OV | MG/KG | 05-SS-094-0204 | 1104165-10 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-067-0406-D | 1104165-01 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-071-0406 | 1104165-04 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-072-0406 | 1104165-03 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-075-0406 | 1104165-06 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-076-0406 | 1104165-05 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-077-0406 | 1104165-07 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-091-0204 | 1104165-12 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-091-0204-D | 1104165-11 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-092-0204 | 1104165-13 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-093-0204 | 1104165-09 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | MG/KG | 05-SS-067-0406 | 1104165-02 | NM | 04/11/2011 | 04/15/2011 | 04/15/2011 | 4 | 0 | 4 |
| OV | UG/L | Trip Blank 9478 | 1104165-08 | NM | 04/11/2011 | 04/18/2011 | 04/18/2011 | 7 | 0 | 7 |
| SIM | MG/KG | 05-SS-077-0406 | 1104165-07 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-067-0406 | 1104165-02 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-067-0406-D | 1104165-01 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-067-0406-D | 1104165-01 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-071-0406 | 1104165-04 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-071-0406 | 1104165-04 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-072-0406 | 1104165-03 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-072-0406 | 1104165-03 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-075-0406 | 1104165-06 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-075-0406 | 1104165-06 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-067-0406 | 1104165-02 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-094-0204 | 1104165-10 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-076-0406 | 1104165-05 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-094-0204 | 1104165-10 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-076-0406 | 1104165-05 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-093-0204 | 1104165-09 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-093-0204 | 1104165-09 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-092-0204 | 1104165-13 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-091-0204-D | 1104165-11 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-091-0204-D | 1104165-11 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| SIM | MG/KG | 05-SS-091-0204 | 1104165-12 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-091-0204 | 1104165-12 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-077-0406 | 1104165-07 | SUR | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| SIM | MG/KG | 05-SS-092-0204 | 1104165-13 | NM | 04/11/2011 | 04/21/2011 | 04/26/2011 | 10 | 5 | 15 |
| TPH | MG/KG | 05-SS-071-0406 | 1104165-04 | NM | 04/11/2011 | 04/19/2011 | 04/20/2011 | 8 | 1 | 9 |
| TPH | MG/KG | 05-SS-093-0204 | 1104165-09 | NM | 04/11/2011 | 04/19/2011 | 04/20/2011 | 8 | 1 | 9 |
| TPH | MG/KG | 05-SS-092-0204 | 1104165-13 | NM | 04/11/2011 | 04/21/2011 | 04/23/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-091-0204-D | 1104165-11 | NM | 04/11/2011 | 04/21/2011 | 04/23/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-091-0204 | 1104165-12 | NM | 04/11/2011 | 04/21/2011 | 04/23/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-077-0406 | 1104165-07 | NM | 04/11/2011 | 04/19/2011 | 04/21/2011 | 8 | 2 | 10 |
| TPH | MG/KG | 05-SS-076-0406 | 1104165-05 | NM | 04/11/2011 | 04/19/2011 | 04/20/2011 | 8 | 1 | 9 |
| TPH | MG/KG | 05-SS-067-0406 | 1104165-02 | NM | 04/11/2011 | 04/19/2011 | 04/20/2011 | 8 | 1 | 9 |
| TPH | MG/KG | 05-SS-072-0406 | 1104165-03 | NM | 04/11/2011 | 04/19/2011 | 04/20/2011 | 8 | 1 | 9 |
| TPH | MG/KG | 05-SS-067-0406-D | 1104165-01 | NM | 04/11/2011 | 04/19/2011 | 04/20/2011 | 8 | 1 | 9 |
| TPH | MG/KG | 05-SS-094-0204 | 1104165-10 | NM | 04/11/2011 | 04/21/2011 | 04/23/2011 | 10 | 2 | 12 |
| TPH | MG/KG | 05-SS-075-0406 | 1104165-06 | NM | 04/11/2011 | 04/19/2011 | 04/20/2011 | 8 | 1 | 9 |

# SAUFLEY FIELD
# SOIL DATA
# CTOJM26_008

| FRACTION | CHEMICAL | 05-SS-091-0204 | UNITS | 05-SS-091-0204-D | RPD | D |
|---|---|---|---|---|---|---|
| PET | TPH (C08-C40) | 15.8 J | MG/KG | ND | 200.00 | 15.80 |

O.K. < 2xRL

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

*ANALYTICAL SUMMARY DATA PACKAGE*
SDG # CTOJM26_008

**PROJECT NAME:** NAS PENSACOLA CTO JM26 SAUFLEY
**PROJECT LOCATION:** PENSACOLA, FL
**CONTRACT #:** N62470-08-D-1001

**SUBMITTAL TO:**
Tobrena Sedlmeyer
Tetra Tech NUS, Inc.
Foster Plaza 7
661 Andersen Drive
Pittsburgh, PA 15220

**SUBMITTAL BY:**
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

**LABORATORY CONTACT PERSON:**
Project Manager: Brian Richard
Tel (615)345-1115
Fax (866)417-0548
Email: brichard@empirlabs.com

Original Report Date: May 2, 2011
Report Revision #: N/A
Revision Date: N/A
Total # of Pages: 167

**THIS DOCUMENT MEETS DoD QSM 4.1 STANDARDS**

*The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.*

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8260B:**
No anomalies or deviations are noted.

**SW8270C:**
No anomalies or deviations are noted.

**FLPRO:**
The surrogate 2-Fluorobiphenyl exceeded criteria with a negative bias in 1104165-07. The surrogate 2-Fluorobiphenyl exceeded the retention time window in 1D20025-BLK1, 1104165-10, -11, -12, and -13. The result bias due to the retention time shift was

determined to be negligible for all affected batch QC and samples.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

**Analytical Report Terms and Qualifiers**

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.1 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.1 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.1 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*****: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE**" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

Organic Calculations:

**GC/MS Volatiles**

$$\text{Final Concentration} = \frac{\text{On-column(ug/L or ug/Kg)} * \text{Expected Vol/Weight (mL or g)} * \text{Dilution}}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

***Note - Expected Vol/Weight value is found in "Final Vol" column of Preparation Batch Summary.***

**GC/MS Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/uL)} * \text{Final Vol (ml)} * \text{Dilution} *(1000\text{uL/mL})}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g
= ug/L or ug/kg

**GC or LC Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/mL)} * \text{Final Vol (mL)} * \text{Dilution}}{\text{Initial Vol/Weight (mL or g)} * \text{(Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g
= ug/L or ug/kg

# Sample Receipt Information

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 2800 | PAGE 1 OF 1

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Saufley Field Site 05 | Geoff Pope | 850 385 9899 | EMPIRICAL, Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M Brock | | M. Brock | 850 294 2330 | 621 Mainstream Dr. STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 8684 5094 5644 | | Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): CG, AG, AG
PRESERVATIVE USED: NaOH, H2SO4, ice, ice

| DATE YEAR 2011 | 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 | BTEX, MTBE | PAH | TRPH | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4/11 | 0815 | 05-SS-067-0406-D | SB067 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | 1104065-01 |
| | 0815 | 05-SS-067-0406 | SB067 | 4 | 6 | QC | C | 4 | ✓ | ✓ | ✓ | | | | | | -02 |
| | 0850 | 05-SS-072-0406 | SB072 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -03 |
| | 0920 | 05-SS-071-0406 | SB071 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -04 |
| | 0955 | 05-SS-076-0406 | SB076 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -05 |
| | 1020 | 05-SS-075-0406 | SB075 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -06 |
| | 1045 | 05-SS-077-0406 | SB077 | 4 | 6 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -07 |
| | — | Trip Blank 9478 | — | — | — | QC | G | 2 | ✓ | - | - | | | | | | -08 |
| | 1223 | 05-SS-093-0204 | SB093 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -09 |
| | 1240 | 05-SS-094-0204 | SB094 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -10 |
| | 1255 | 05-SS-091-0204-D | SB091 | 2 | 4 | ~~SO~~ QC | C | 4 | ✓ | ✓ | ✓ | | | | | | -11 |
| | 1255 | 05-SS-091-0204 | SB091 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -12 |
| | 1320 | 05-SS-092-0204 | SB092 | 2 | 4 | SO | C | 4 | ✓ | ✓ | ✓ | | | | | | -13 |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY: M Brock | 4.11.11 | 1420 | 1. RECEIVED BY | | |
| 2. RELINQUISHED BY | | | 2. RECEIVED BY | | |
| 3. RELINQUISHED BY | | | 3. RECEIVED BY: 2.5°C | 4-12-11 | 08:45 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

10

CTOJM26_008 Summ Package

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1104065 Number of Coolers: 1 of 1

Client: Tetra Tech NUS Project: Sauflay Field

Date/Time Received: 4.12.11 0845 Date cooler(s) opened: 4.12.11

Opened By (print): Reginald Tilley (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: 5644

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 4.11.11 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: Initial Value: 2.8 °C Correction Factor: -0.3 °C Final Value 2.5 °C

Dates samples were logged-in: 4-14-11

9. Initial this form to acknowledge login of sample(s): (Name): [signature] (Initial): [signature]
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

If Non-Conformance issues were present, list by sample ID: _____

# Data for SW8260B Forms

# HOLDING TIME SUMMARY
## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-067-0406-D | 04/11/11 08:15 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 14:22 | 4.30 | 14.00 | |
| 05-SS-067-0406 | 04/11/11 08:15 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 14:47 | 4.31 | 14.00 | |
| 05-SS-072-0406 | 04/11/11 08:50 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 15:11 | 4.31 | 14.00 | |
| 05-SS-071-0406 | 04/11/11 09:20 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 15:36 | 4.30 | 14.00 | |
| 05-SS-076-0406 | 04/11/11 09:55 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 16:01 | 4.30 | 14.00 | |
| 05-SS-075-0406 | 04/11/11 10:20 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 16:25 | 4.30 | 14.00 | |
| 05-SS-077-0406 | 04/11/11 10:45 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 16:50 | 4.30 | 14.00 | |
| Trip Blank 9478 | 04/11/11 00:00 | 04/12/11 15:26 | 04/18/11 00:00 | N/A | 14.00 | 04/18/11 11:25 | 7.48 | 14.00 | |
| 05-SS-093-0204 | 04/11/11 12:23 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 17:14 | 4.24 | 14.00 | |
| 05-SS-094-0204 | 04/11/11 12:40 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 17:39 | 4.25 | 14.00 | |
| 05-SS-091-0204-D | 04/11/11 12:55 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 18:03 | 4.26 | 14.00 | |
| 05-SS-091-0204 | 04/11/11 12:55 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 18:28 | 4.27 | 14.00 | |
| 05-SS-092-0204 | 04/11/11 13:20 | 04/12/11 15:26 | 04/15/11 00:00 | N/A | 14.00 | 04/15/11 18:52 | 4.27 | 14.00 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10601 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10601-CCV1 ) ug/L** | | | | Lab File ID: 0415CCV1.D | | Analyzed: 04/15/11 09:22 | | |
| Bromofluorobenzene | 30.00 | 117 | 80 - 120 | 12.243 | 12.243 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 107 | 80 - 120 | 6.922 | 6.922 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 102 | 80 - 120 | 7.424 | 7.424 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 117 | 80 - 120 | 9.627 | 9.627 | 0.0000 | +/-1.000 | |
| **LCS (1D15006-BS1 ) mg/Kg wet** | | | | Lab File ID: 0415LS1.D | | Analyzed: 04/15/11 09:57 | | |
| Bromofluorobenzene | 0.03000 | 109 | 85 - 120 | 12.242 | 12.243 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 103 | 80 - 125 | 6.921 | 6.922 | -0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 109 | 75 - 140 | 7.413 | 7.424 | -0.0110 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 106 | 85 - 115 | 9.626 | 9.627 | -0.0010 | +/-1.000 | |
| **Blank (1D15006-BLK1 ) mg/Kg wet** | | | | Lab File ID: 0415BL1.D | | Analyzed: 04/15/11 11:11 | | |
| Bromofluorobenzene | 0.03000 | 104 | 85 - 120 | 12.236 | 12.243 | -0.0070 | +/-1.000 | |
| Dibromofluoromethane | 0.03000 | 103 | 80 - 125 | 6.925 | 6.922 | 0.0030 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 101 | 75 - 140 | 7.416 | 7.424 | -0.0080 | +/-1.000 | |
| Toluene-d8 | 0.03000 | 104 | 85 - 115 | 9.629 | 9.627 | 0.0020 | +/-1.000 | |
| **05-SS-067-0406-D (1104165-01 ) mg/Kg dry** | | | | Lab File ID: 0416501.D | | Analyzed: 04/15/11 14:22 | | |
| Bromofluorobenzene | 0.03512 | 101 | 85 - 120 | 12.245 | 12.243 | 0.0020 | +/-1.000 | |
| Dibromofluoromethane | 0.03512 | 106 | 80 - 125 | 6.934 | 6.922 | 0.0120 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03512 | 101 | 75 - 140 | 7.426 | 7.424 | 0.0020 | +/-1.000 | |
| Toluene-d8 | 0.03512 | 102 | 85 - 115 | 9.629 | 9.627 | 0.0020 | +/-1.000 | |
| **05-SS-067-0406 (1104165-02 ) mg/Kg dry** | | | | Lab File ID: 0416502.D | | Analyzed: 04/15/11 14:47 | | |
| Bromofluorobenzene | 0.03412 | 104 | 85 - 120 | 12.242 | 12.243 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03412 | 105 | 80 - 125 | 6.941 | 6.922 | 0.0190 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03412 | 99.5 | 75 - 140 | 7.433 | 7.424 | 0.0090 | +/-1.000 | |
| Toluene-d8 | 0.03412 | 105 | 85 - 115 | 9.636 | 9.627 | 0.0090 | +/-1.000 | |
| **05-SS-072-0406 (1104165-03 ) mg/Kg dry** | | | | Lab File ID: 0416503.D | | Analyzed: 04/15/11 15:11 | | |
| Bromofluorobenzene | 0.03494 | 102 | 85 - 120 | 12.248 | 12.243 | 0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03494 | 105 | 80 - 125 | 6.937 | 6.922 | 0.0150 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03494 | 104 | 75 - 140 | 7.429 | 7.424 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03494 | 104 | 85 - 115 | 9.632 | 9.627 | 0.0050 | +/-1.000 | |
| **05-SS-071-0406 (1104165-04 ) mg/Kg dry** | | | | Lab File ID: 0416504.D | | Analyzed: 04/15/11 15:36 | | |
| Bromofluorobenzene | 0.03902 | 102 | 85 - 120 | 12.252 | 12.243 | 0.0090 | +/-1.000 | |
| Dibromofluoromethane | 0.03902 | 105 | 80 - 125 | 6.941 | 6.922 | 0.0190 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03902 | 103 | 75 - 140 | 7.433 | 7.424 | 0.0090 | +/-1.000 | |
| Toluene-d8 | 0.03902 | 101 | 85 - 115 | 9.636 | 9.627 | 0.0090 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10601 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-076-0406 (1104165-05 ) mg/Kg dry** | | | | Lab File ID: 0416505.D | | Analyzed: 04/15/11 16:01 | | |
| Bromofluorobenzene | 0.03158 | 99.4 | 85 - 120 | 12.247 | 12.243 | 0.0040 | +/-1.000 | |
| Dibromofluoromethane | 0.03158 | 104 | 80 - 125 | 6.927 | 6.922 | 0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03158 | 103 | 75 - 140 | 7.418 | 7.424 | -0.0060 | +/-1.000 | |
| Toluene-d8 | 0.03158 | 102 | 85 - 115 | 9.631 | 9.627 | 0.0040 | +/-1.000 | |
| **05-SS-075-0406 (1104165-06 ) mg/Kg dry** | | | | Lab File ID: 0416506.D | | Analyzed: 04/15/11 16:25 | | |
| Bromofluorobenzene | 0.03571 | 103 | 85 - 120 | 12.245 | 12.243 | 0.0020 | +/-1.000 | |
| Dibromofluoromethane | 0.03571 | 105 | 80 - 125 | 6.924 | 6.922 | 0.0020 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03571 | 100 | 75 - 140 | 7.426 | 7.424 | 0.0020 | +/-1.000 | |
| Toluene-d8 | 0.03571 | 102 | 85 - 115 | 9.629 | 9.627 | 0.0020 | +/-1.000 | |
| **05-SS-077-0406 (1104165-07 ) mg/Kg dry** | | | | Lab File ID: 0416507.D | | Analyzed: 04/15/11 16:50 | | |
| Bromofluorobenzene | 0.03303 | 101 | 85 - 120 | 12.248 | 12.243 | 0.0050 | +/-1.000 | |
| Dibromofluoromethane | 0.03303 | 106 | 80 - 125 | 6.937 | 6.922 | 0.0150 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03303 | 103 | 75 - 140 | 7.429 | 7.424 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 0.03303 | 105 | 85 - 115 | 9.632 | 9.627 | 0.0050 | +/-1.000 | |
| **05-SS-093-0204 (1104165-09 ) mg/Kg dry** | | | | Lab File ID: 0416509.D | | Analyzed: 04/15/11 17:14 | | |
| Bromofluorobenzene | 0.03774 | 102 | 85 - 120 | 12.243 | 12.243 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 0.03774 | 104 | 80 - 125 | 6.932 | 6.922 | 0.0100 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03774 | 103 | 75 - 140 | 7.424 | 7.424 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 0.03774 | 101 | 85 - 115 | 9.636 | 9.627 | 0.0090 | +/-1.000 | |
| **05-SS-094-0204 (1104165-10 ) mg/Kg dry** | | | | Lab File ID: 0416510.D | | Analyzed: 04/15/11 17:39 | | |
| Bromofluorobenzene | 0.03170 | 100 | 85 - 120 | 12.251 | 12.243 | 0.0080 | +/-1.000 | |
| Dibromofluoromethane | 0.03170 | 103 | 80 - 125 | 6.94 | 6.922 | 0.0180 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03170 | 98.4 | 75 - 140 | 7.432 | 7.424 | 0.0080 | +/-1.000 | |
| Toluene-d8 | 0.03170 | 103 | 85 - 115 | 9.635 | 9.627 | 0.0080 | +/-1.000 | |
| **05-SS-091-0204-D (1104165-11 ) mg/Kg dry** | | | | Lab File ID: 0416511.D | | Analyzed: 04/15/11 18:03 | | |
| Bromofluorobenzene | 0.03396 | 104 | 85 - 120 | 12.252 | 12.243 | 0.0090 | +/-1.000 | |
| Dibromofluoromethane | 0.03396 | 104 | 80 - 125 | 6.931 | 6.922 | 0.0090 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03396 | 95.4 | 75 - 140 | 7.433 | 7.424 | 0.0090 | +/-1.000 | |
| Toluene-d8 | 0.03396 | 103 | 85 - 115 | 9.636 | 9.627 | 0.0090 | +/-1.000 | |
| **05-SS-091-0204 (1104165-12 ) mg/Kg dry** | | | | Lab File ID: 0416512.D | | Analyzed: 04/15/11 18:28 | | |
| Bromofluorobenzene | 0.02723 | 102 | 85 - 120 | 12.245 | 12.243 | 0.0020 | +/-1.000 | |
| Dibromofluoromethane | 0.02723 | 109 | 80 - 125 | 6.935 | 6.922 | 0.0130 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.02723 | 98.0 | 75 - 140 | 7.426 | 7.424 | 0.0020 | +/-1.000 | |
| Toluene-d8 | 0.02723 | 103 | 85 - 115 | 9.639 | 9.627 | 0.0120 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10601 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-092-0204 (1104165-13 ) mg/Kg dry** | | | | Lab File ID: 0416513.D | | Analyzed: 04/15/11 18:52 | | |
| Bromofluorobenzene | 0.03095 | 103 | 85 - 120 | 12.244 | 12.243 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 0.03095 | 108 | 80 - 125 | 6.933 | 6.922 | 0.0110 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 0.03095 | 101 | 75 - 140 | 7.425 | 7.424 | 0.0010 | +/-1.000 | |
| Toluene-d8 | 0.03095 | 102 | 85 - 115 | 9.638 | 9.627 | 0.0110 | +/-1.000 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10912 | Instrument: | MS-VOA5 |
| | | Calibration: | 1110001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10912-CCV1 ) ug/L** | | | | Lab File ID: 0418CC1.D | | Analyzed: 04/18/11 08:02 | | |
| Bromofluorobenzene | 30.00 | 96.4 | 80 - 120 | 12.239 | 12.239 | 0.0000 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 105 | 80 - 120 | 6.881 | 6.881 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 103 | 80 - 120 | 7.383 | 7.383 | 0.0000 | +/-1.000 | |
| Toluene-d8 | 30.00 | 98.6 | 80 - 120 | 9.609 | 9.609 | 0.0000 | +/-1.000 | |
| **LCS (1D18005-BS1 ) ug/L** | | | | Lab File ID: 0418LS1.D | | Analyzed: 04/18/11 08:28 | | |
| Bromofluorobenzene | 30.00 | 100 | 75 - 120 | 12.24 | 12.239 | 0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 105 | 85 - 115 | 6.881 | 6.881 | 0.0000 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 104 | 70 - 120 | 7.384 | 7.383 | 0.0010 | +/-1.000 | |
| Toluene-d8 | 30.00 | 101 | 85 - 120 | 9.61 | 9.609 | 0.0010 | +/-1.000 | |
| **Blank (1D18005-BLK1 ) ug/L** | | | | Lab File ID: 0418BL1.D | | Analyzed: 04/18/11 09:45 | | |
| Bromofluorobenzene | 30.00 | 104 | 75 - 120 | 12.234 | 12.239 | -0.0050 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 103 | 85 - 115 | 6.886 | 6.881 | 0.0050 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 108 | 70 - 120 | 7.388 | 7.383 | 0.0050 | +/-1.000 | |
| Toluene-d8 | 30.00 | 103 | 85 - 120 | 9.614 | 9.609 | 0.0050 | +/-1.000 | |
| **Trip Blank 9478 (1104165-08 ) ug/L** | | | | Lab File ID: 0416508.D | | Analyzed: 04/18/11 11:25 | | |
| Bromofluorobenzene | 30.00 | 101 | 75 - 120 | 12.238 | 12.239 | -0.0010 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 106 | 85 - 115 | 6.88 | 6.881 | -0.0010 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 102 | 70 - 120 | 7.382 | 7.383 | -0.0010 | +/-1.000 | |
| Toluene-d8 | 30.00 | 106 | 85 - 120 | 9.608 | 9.609 | -0.0010 | +/-1.000 | |
| **LCS Dup (1D18005-BSD1 ) ug/L** | | | | Lab File ID: 0418LD1.D | | Analyzed: 04/18/11 19:19 | | |
| Bromofluorobenzene | 30.00 | 101 | 75 - 120 | 12.235 | 12.239 | -0.0040 | +/-1.000 | |
| Dibromofluoromethane | 30.00 | 103 | 85 - 115 | 6.887 | 6.881 | 0.0060 | +/-1.000 | |
| 1,2-Dichloroethane-d4 | 30.00 | 104 | 70 - 120 | 7.379 | 7.383 | -0.0040 | +/-1.000 | |
| Toluene-d8 | 30.00 | 103 | 85 - 120 | 9.605 | 9.609 | -0.0040 | +/-1.000 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10810 | Instrument: | MS-VOA5 |
| Calibration: | 1110001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10810-TUN1 | 0415TU1.D | 04/15/11 08:29 |
| Cal Standard | 1D10810-CAL1 | 0415CAL1.D | 04/15/11 09:53 |
| Cal Standard | 1D10810-CAL2 | 0415CAL2.D | 04/15/11 10:18 |
| Cal Standard | 1D10810-CAL3 | 0415CAL3.D | 04/15/11 10:43 |
| Cal Standard | 1D10810-CAL4 | 0415CAL4.D | 04/15/11 11:07 |
| Cal Standard | 1D10810-CAL5 | 0415CAL5.D | 04/15/11 11:32 |
| Cal Standard | 1D10810-CAL6 | 0415CAL6.D | 04/15/11 11:57 |
| Cal Standard | 1D10810-CAL7 | 0415CAL7.D | 04/15/11 12:22 |
| Cal Standard | 1D10810-CAL8 | 0415CAL8.D | 04/15/11 12:47 |
| Cal Standard | 1D10810-CAL9 | 0415CAL9.D | 04/15/11 13:12 |
| Initial Cal Check | 1D10810-ICV2 | 0415ICV2.D | 04/15/11 14:01 |
| Cal Standard | 1D10810-CALA | 0415CALA.D | 04/15/11 14:26 |
| Cal Standard | 1D10810-CALB | 0415CALB.D | 04/15/11 14:51 |
| Cal Standard | 1D10810-CALC | 0415CALC.D | 04/15/11 15:16 |
| Cal Standard | 1D10810-CALD | 0415CALD.D | 04/15/11 15:41 |
| Cal Standard | 1D10810-CALE | 0415CALE.D | 04/15/11 16:05 |
| Cal Standard | 1D10810-CALF | 0415CALF.D | 04/15/11 16:30 |
| Cal Standard | 1D10810-CALG | 0415CALG.D | 04/15/11 16:55 |
| Cal Standard | 1D10810-CALH | 0415CALH.D | 04/15/11 17:20 |
| Cal Standard | 1D10810-CALI | 0415CALI.D | 04/15/11 17:45 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0415TU1.D | Injection Date: | 04/15/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 08:29 |
| Sequence: | 1D10810 | Lab Sample ID: | 1D10810-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 18.4 | PASS |
| 75 | 30 - 60% of 95 | 38.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.52 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 101 | PASS |
| 175 | 5 - 9% of 174 | 7.11 | PASS |
| 176 | 95 - 101% of 174 | 95.6 | PASS |
| 177 | 5 - 9% of 176 | 5.75 | PASS |

# INITIAL CALIBRATION DATA

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1110001

Instrument: MS-VOA5

Matrix: Water

Calibration Dates: 4/15/11 9:53 4/15/11 17:45

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 2.501 | 7.345248E-02 | 5.002 | 0.0629605 | 10 | 7.600379E-02 | 25.01 | 4.266429E-02 | 50.02 | 4.401047E-02 | 250.1 | 4.491028E-02 |
| Acrylonitrile | 2.499 | 9.808561E-02 | 4.998 | 0.109848 | 9.996 | 8.699726E-02 | 24.99 | 8.799322E-02 | 49.98 | 8.802525E-02 | 249.9 | 9.420532E-02 |
| Benzene | 0.5 | 0.8000888 | 1 | 0.9156609 | 2 | 0.8803617 | 5 | 0.7934592 | 10 | 0.7359414 | 50 | 0.800176 |
| Bromobenzene | 0.5 | 0.641056 | 1 | 0.6621863 | 2 | 0.5914626 | 5 | 0.6467631 | 10 | 0.579489 | 50 | 0.6402908 |
| Bromochloromethane | 0.5 | 0.1093716 | 1 | 0.1692393 | 2 | 0.140701 | 5 | 0.1313986 | 10 | 0.112671 | 50 | 0.1315389 |
| Tert-Amyl Methyl Ether | 0.5 | 0.6306069 | 1 | 0.7326989 | 2 | 0.6863854 | 5 | 0.6084636 | 10 | 0.594319 | 50 | 0.6639212 |
| Bromodichloromethane | 0.5 | 0.3849176 | 1 | 0.3212413 | 2 | 0.3108098 | 5 | 0.3016333 | 10 | 0.2722413 | 50 | 0.3183873 |
| Bromoform | 0.5 | 0.3945924 | 1 | 0.3386649 | 2 | 0.3466746 | 5 | 0.3226988 | 10 | 0.33363 | 50 | 0.3812498 |
| Bromomethane | 0.5 | 0.1684676 | 1 | 0.1779699 | 2 | 0.192281 | 5 | 0.1780457 | 10 | 0.1785955 | 50 | 0.2262205 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 0.5 | 1.615764 | 1 | 1.620222 | 2 | 1.568309 | 5 | 1.533788 | 10 | 1.313584 | 50 | 1.538153 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 0.5 | 2.182433 | 1 | 2.042219 | 2 | 2.12414 | 5 | 1.9027 | 10 | 1.740465 | 50 | 1.975233 |
| tert-Butylbenzene | 0.5 | 1.42206 | 1 | 1.934084 | 2 | 1.652871 | 5 | 1.639224 | 10 | 1.426676 | 50 | 1.647677 |
| Carbon disulfide | 0.5 | 0.6700777 | 1 | 0.7146108 | 2 | 0.6935102 | 5 | 0.6335915 | 10 | 0.6337523 | 50 | 0.6850653 |
| Carbon tetrachloride | 0.5 | 0.2142449 | 1 | 0.2502996 | 2 | 0.2321267 | 5 | 0.2296175 | 10 | 0.2145385 | 50 | 0.245885 |
| Chlorobenzene | 0.5 | 1.326671 | 1 | 1.439744 | 2 | 1.348718 | 5 | 1.242116 | 10 | 1.218162 | 50 | 1.309918 |
| Chloroethane | 0.5 | 0.2639473 | 1 | 0.3176148 | 2 | 0.2371905 | 5 | 0.2382983 | 10 | 0.229075 | 50 | 0.2546896 |
| Chloroform | 0.5 | 0.4713124 | 1 | 0.525224 | 2 | 0.4449954 | 5 | 0.3898242 | 10 | 0.3843343 | 50 | 0.4034271 |
| 2-Chloroethyl vinyl ether | 0.9975 | 0.1757648 | 1.995 | 0.1714589 | 3.99 | 0.1786886 | 9.975 | 0.1651317 | 19.95 | 0.1499097 | 99.75 | 0.1703667 |
| Chloromethane | 0.5 | 0.4048956 | 1 | 0.522269 | 2 | 0.5269472 | 5 | 0.4844209 | 10 | 0.4433077 | 50 | 0.4808374 |
| 1-Chlorohexane | 0.501 | 1.585962 | 1.002 | 1.589005 | 2.004 | 1.398023 | 5.01 | 1.274661 | 10.02 | 1.22227 | 50.1 | 1.31726 |
| 2-Chlorotoluene | 0.5 | 1.32624 | 1 | 1.808458 | 2 | 1.659932 | 5 | 1.543797 | 10 | 1.385015 | 50 | 1.54863 |
| 4-Chlorotoluene | 0.5 | 1.73978 | 1 | 1.803072 | 2 | 1.855684 | 5 | 1.677465 | 10 | 1.535848 | 50 | 1.79964 |
| Cyclohexane | 0.5 | 0.4396916 | 1 | 0.4634382 | 2 | 0.409737 | 5 | 0.3895298 | 10 | 0.3643557 | 50 | 0.4100495 |
| Dibromochloromethane | 0.5 | 0.5283043 | 1 | 0.5578137 | 2 | 0.5173084 | 5 | 0.5282558 | 10 | 0.5005973 | 50 | 0.5522381 |
| 1,2-Dibromo-3-chloropropane | 0.5 | | 1 | 9.348104E-02 | 2 | 9.474229E-02 | 5 | 0.1156024 | 10 | 0.1023672 | 50 | 0.1237073 |
| 1,2-Dibromoethane (EDB) | 0.5 | 0.5843429 | 1 | 0.6618649 | 2 | 0.6056568 | 5 | 0.540378 | 10 | 0.5211705 | 50 | 0.5524816 |
| Dibromomethane | 0.5 | 0.1536054 | 1 | 0.1796265 | 2 | 0.153499 | 5 | 0.1450265 | 10 | 0.1479124 | 50 | 0.1641915 |
| 1,2-Dichlorobenzene | 0.5 | 0.8575686 | 1 | 1.041613 | 2 | 1.049727 | 5 | 0.9857437 | 10 | 0.9044381 | 50 | 1.03308 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 0.5 | 1.273057 | 1 | 1.210968 | 2 | 1.111015 | 5 | 1.008536 | 10 | 0.9391991 | 50 | 1.051088 |
| 1,4-Dichlorobenzene | 0.5 | 1.532551 | 1 | 1.16052 | 2 | 1.202197 | 5 | 1.083727 | 10 | 0.9748769 | 50 | 1.079088 |
| Dichlorodifluoromethane | 0.5 | 0.2840134 | 1 | 0.2858936 | 2 | 0.2909534 | 5 | 0.3119691 | 10 | 0.2727878 | 50 | 0.3162249 |
| 1,1-Dichloroethane | 0.5 | 0.4287103 | 1 | 0.5320965 | 2 | 0.4751234 | 5 | 0.4325725 | 10 | 0.4120782 | 50 | 0.4661043 |
| 1,2-Dichloroethane | 0.5 | 0.3562957 | 1 | 0.31363 | 2 | 0.3396192 | 5 | 0.3170589 | 10 | 0.2989102 | 50 | 0.3387723 |
| 1,1-Dichloroethene | 0.5 | 0.2393828 | 1 | 0.2659251 | 2 | 0.2648033 | 5 | 0.1920973 | 10 | 0.1939775 | 50 | 0.2009782 |
| cis-1,2-Dichloroethene | 0.5 | 0.249482 | 1 | 0.3033548 | 2 | 0.3005381 | 5 | 0.247724 | 10 | 0.2281777 | 50 | 0.2555682 |
| trans-1,2-Dichloroethene | 0.5 | 0.2998018 | 1 | 0.2666415 | 2 | 0.2699336 | 5 | 0.2006577 | 10 | 0.2123392 | 50 | 0.230136 |
| 1,2-Dichloroethene (total) | 1 | 0.2746419 | 2 | 0.2849981 | 4 | 0.2852358 | 10 | 0.2241909 | 20 | 0.2202585 | 100 | 0.2428521 |
| 1,2-Dichloropropane | 0.5 | 0.2971116 | 1 | 0.3268379 | 2 | 0.3157074 | 5 | 0.2696402 | 10 | 0.2481496 | 50 | 0.2695601 |
| 1,3-Dichloropropane | 0.5 | 0.843535 | 1 | 0.909842 | 2 | 0.8361608 | 5 | 0.8171525 | 10 | 0.764916 | 50 | 0.8162331 |
| 2,2-Dichloropropane | 0.5 | 0.3501656 | 1 | 0.3412545 | 2 | 0.3056573 | 5 | 0.2780712 | 10 | 0.2715509 | 50 | 0.3022778 |
| 1,1-Dichloropropene | 0.5 | 0.2968029 | 1 | 0.3418814 | 2 | 0.3254472 | 5 | 0.2892188 | 10 | 0.2793071 | 50 | 0.3077439 |
| cis-1,3-Dichloropropene | 0.5 | 0.3369793 | 1 | 0.4209045 | 2 | 0.3752986 | 5 | 0.3546505 | 10 | 0.3451507 | 50 | 0.3709639 |
| trans-1,3-Dichloropropene | 0.5 | 0.6572671 | 1 | 0.7202759 | 2 | 0.7544529 | 5 | 0.7045884 | 10 | 0.6688263 | 50 | 0.7769461 |
| 1,3-Dichloropropene (total) | 1 | 0.3058216 | 2 | 0.3600701 | 4 | 0.3468991 | 10 | 0.3256349 | 20 | 0.3108605 | 100 | 0.3508639 |
| Diisopropyl Ether | 0.5 | 1.095436 | 1 | 1.089445 | 2 | 1.036587 | 5 | 1.039403 | 10 | 1.009037 | 50 | 1.099811 |
| Ethylbenzene | 0.5 | 2.026046 | 1 | 2.21121 | 2 | 2.244356 | 5 | 2.0568 | 10 | 1.979842 | 50 | 2.099205 |
| Ethyl tert-Butyl Ether | 0.5 | 0.8180381 | 1 | 0.8773582 | 2 | 0.8584222 | 5 | 0.7778061 | 10 | 0.7427239 | 50 | 0.8236289 |
| Ethyl Methacrylate | 0.5 | 0.7708219 | 1 | 0.7903798 | 2 | 0.7030081 | 5 | 0.7054255 | 10 | 0.6633499 | 50 | 0.7145584 |
| Hexachlorobutadiene | 0.5 | 0.3004126 | 1 | 0.2670639 | 2 | 0.2546861 | 5 | 0.2139476 | 10 | 0.1996979 | 50 | 0.2170609 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 0.5 | ~~0.1155017~~ | 1 | 0.1466517 | 2 | 0.1505738 | 5 | 0.1804679 | 10 | 0.1858682 | 50 | 0.2715026 |
| Isopropylbenzene | 0.5 | 1.553991 | 1 | 1.879496 | 2 | 1.64715 | 5 | 1.463981 | 10 | 1.484014 | 50 | 1.604791 |
| p-Isopropyltoluene | 0.5 | 1.89864 | 1 | 1.776951 | 2 | 1.742258 | 5 | 1.607387 | 10 | 1.523654 | 50 | 1.666623 |
| Methylene chloride | 0.5 | ~~0.3900775~~ | 1 | 0.2936392 | 2 | 0.2698228 | 5 | 0.2477597 | 10 | 0.2252182 | 50 | 0.2518085 |
| Methyl Acetate | 0.5 | ~~0.4609926~~ | 1 | 0.4005555 | 2 | 0.2358498 | 5 | 0.2255224 | 10 | 0.2031954 | 50 | 0.215042 |
| Methylcyclohexane | 0.5 | 0.3449617 | 1 | 0.2959674 | 2 | 0.3342673 | 5 | 0.2715628 | 10 | 0.2594567 | 50 | 0.2933012 |
| Naphthalene | 0.5 | 1.330595 | 1 | 1.403953 | 2 | 1.438523 | 5 | 1.267743 | 10 | 1.210153 | 50 | 1.336267 |
| Methyl Methacrylate | 0.5 | 0.3571778 | 1 | 0.3326583 | 2 | 0.2536673 | 5 | 0.2420409 | 10 | 0.2434765 | 50 | 0.2725396 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11_9:53 4/15/11_17:45 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Methyl t-Butyl Ether | 0.5 | 0.58849 | 1 | 0.3847061 | 2 | 0.61701 | 5 | 0.5249432 | 10 | 0.5220101 | 50 | 0.575102 |
| n-Propylbenzene | 0.5 | 2.658898 | 1 | 2.631022 | 2 | 2.742525 | 5 | 2.498391 | 10 | 2.252019 | 50 | 2.51794 |
| Styrene | 0.5 | 1.191692 | 1 | 1.431338 | 2 | 1.394782 | 5 | 1.292819 | 10 | 1.286717 | 50 | 1.356195 |
| 1,1,2,2-Tetrachloroethane | 0.5 | 0.6565294 | 1 | 0.8292243 | 2 | 0.7688837 | 5 | 0.6768636 | 10 | 0.6541766 | 50 | 0.723185 |
| 1,1,1,2-Tetrachloroethane | 0.5 | 0.4367006 | 1 | 0.4756397 | 2 | 0.5285685 | 5 | 0.4857648 | 10 | 0.4354952 | 50 | 0.5080245 |
| tert-Butyl alcohol | 2.5 | 1.891953E-02 | 5 | 2.545306E-02 | 10 | 2.534346E-02 | 25 | 2.000688E-02 | 50 | 1.962376E-02 | 250 | 2.099059E-02 |
| Tetrachloroethene | 0.5 | 0.364093 | 1 | 0.5506471 | 2 | 0.4872814 | 5 | 0.4530117 | 10 | 0.4530936 | 50 | 0.4932279 |
| Toluene | 0.5 | 1.194858 | 1 | 1.156849 | 2 | 1.245383 | 5 | 1.085715 | 10 | 1.014703 | 50 | 1.112732 |
| 1,2,3-Trichlorobenzene | 0.5 | 0.4865515 | 1 | 0.6485175 | 2 | 0.5326165 | 5 | 0.4876621 | 10 | 0.4486489 | 50 | 0.5188974 |
| 1,2,4-Trichlorobenzene | 0.5 | 0.7493696 | 1 | 0.6890607 | 2 | 0.6505441 | 5 | 0.5479476 | 10 | 0.5055653 | 50 | 0.5773303 |
| 1,1,2-Trichloroethane | 0.5 | 0.5303094 | 1 | 0.5252135 | 2 | 0.4770975 | 5 | 0.4418115 | 10 | 0.4350982 | 50 | 0.4271284 |
| 1,1,1-Trichloroethane | 0.5 | 0.330761 | 1 | 0.3376056 | 2 | 0.3149539 | 5 | 0.2880055 | 10 | 0.2771033 | 50 | 0.3098753 |
| Tetrahydrofuran | 0.5 | ~~0.163181~~ | 1 | 0.1109906 | 2 | 0.130662 | 5 | 7.513845E-02 | 10 | 7.189065E-02 | 50 | 7.579246E-02 |
| Trichloroethene | 0.5 | 0.2354577 | 1 | 0.2523815 | 2 | 0.2614126 | 5 | 0.2117919 | 10 | 0.2188451 | 50 | 0.2396014 |
| Trichlorofluoromethane | 0.5 | 0.4371778 | 1 | 0.4162929 | 2 | 0.4261584 | 5 | 0.3891685 | 10 | 0.3896686 | 50 | 0.3943387 |
| 1,2,3-Trichloropropane | 0.5 | 0.1683271 | 1 | 0.1842854 | 2 | 0.2015794 | 5 | 0.1413224 | 10 | 0.1597234 | 50 | 0.1514929 |
| 1,3,5-Trimethylbenzene | 0.5 | 1.681783 | 1 | 1.781468 | 2 | 1.842237 | 5 | 1.535102 | 10 | 1.452974 | 50 | 1.666816 |
| 1,2,4-Trimethylbenzene | 0.5 | 1.815771 | 1 | 1.840546 | 2 | 1.734166 | 5 | 1.554856 | 10 | 1.452915 | 50 | 1.671327 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 0.5 | 0.1947962 | 1 | 0.245106 | 2 | 0.2140875 | 5 | 0.1963128 | 10 | 0.1816022 | 50 | 0.207954 |
| Vinyl chloride | 0.5 | 0.4777512 | 1 | 0.3889818 | 2 | 0.3273641 | 5 | 0.3402598 | 10 | 0.3620777 | 50 | 0.3030401 |
| m,p-Xylene | 1 | 1.670396 | 2 | 1.787353 | 4 | 1.678962 | 10 | 1.568847 | 20 | 1.459675 | 100 | 1.572657 |
| o-Xylene | 0.5 | 1.74923 | 1 | 1.94044 | 2 | 1.807285 | 5 | 1.558785 | 10 | 1.560928 | 50 | 1.627801 |
| Vinyl acetate | 0.9995 | 0.4135478 | 1.999 | 0.3447625 | 3.998 | 0.4064887 | 9.995 | 0.3548725 | 19.99 | 0.3401282 | 99.95 | 0.3820547 |
| Xylenes (total) | 1.5 | 1.696674 | 3 | 1.838382 | 6 | 1.721736 | 15 | 1.565493 | 30 | 1.493426 | 150 | 1.591039 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 2.5 | 1.766705E-02 | 5 | 1.906405E-02 | 10 | 1.790397E-02 | 25 | 0.0169066 | 50 | 0.0166562 | 250 | 1.650561E-02 |
| tert-Amyl ethyl ether | 0.5 | 0.6824261 | 1 | 0.6596976 | 2 | 0.6734211 | 5 | 0.6479509 | 10 | 0.6062625 | 50 | 0.6795288 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | 1 | | 2 | ~~0.2395382~~ | 4 | 0.1062259 |
| Acrolein | 500.2 | 4.761912E-02 | 750.3 | 4.441414E-02 | 1000 | 4.446742E-02 | | | | | | |
| Acrylonitrile | 499.8 | 9.624532E-02 | 749.7 | 0.0967836 | 999.6 | 9.945679E-02 | | | | | | |
| Benzene | 100 | 0.8082567 | 150 | 0.8163695 | 200 | 0.7988039 | | | | | | |
| Bromobenzene | 100 | 0.6227843 | 150 | 0.6086506 | 200 | 0.6133366 | | | | | | |
| Bromochloromethane | 100 | 0.1302925 | 150 | 0.134319 | 200 | 0.130993 | | | | | | |
| Tert-Amyl Methyl Ether | 100 | 0.6658783 | 150 | 0.687089 | 200 | 0.681037 | | | | | | |
| Bromodichloromethane | 100 | 0.3180744 | 150 | 0.3272917 | 200 | 0.325512 | | | | | | |
| Bromoform | 100 | 0.3779496 | 150 | 0.3790748 | 200 | 0.3705986 | | | | | | |
| Bromomethane | 100 | 0.2381992 | 150 | 0.2519488 | 200 | 0.2510808 | | | | | | |
| Bromofluorobenzene | | | | | | | 30 | 0.8695019 | 30 | 0.8691996 | 40 | 0.8060909 |
| n-Butylbenzene | 100 | 1.474875 | 150 | 1.431947 | 200 | 1.444853 | | | | | | |
| 2-Butanone | | | | | | | 1 | 0.1415871 | 2 | 0.1638124 | 4 | 0.150175 |
| sec-Butylbenzene | 100 | 1.901739 | 150 | 1.885204 | 200 | 1.850669 | | | | | | |
| tert-Butylbenzene | 100 | 1.602518 | 150 | 1.609183 | 200 | 1.551959 | | | | | | |
| Carbon disulfide | 100 | 0.6887554 | 150 | 0.6911361 | 200 | 0.68595 | | | | | | |
| Carbon tetrachloride | 100 | 0.2509112 | 150 | 0.2571727 | 200 | 0.2633611 | | | | | | |
| Chlorobenzene | 100 | 1.235874 | 150 | 1.215821 | 200 | 1.168307 | | | | | | |
| Chloroethane | 100 | 0.2458709 | 150 | 0.2418009 | 200 | 0.2428498 | | | | | | |
| Chloroform | 100 | 0.4073919 | 150 | 0.4212198 | 200 | 0.4175302 | | | | | | |
| 2-Chloroethyl vinyl ether | 199.5 | 0.175057 | 299.2 | 0.1795702 | 399 | 0.17956 | | | | | | |
| Chloromethane | 100 | 0.4652296 | 150 | 0.4745201 | 200 | 0.4687825 | | | | | | |
| 1-Chlorohexane | 100.2 | 1.256774 | 150.3 | 1.25052 | 200.4 | 1.210453 | | | | | | |
| 2-Chlorotoluene | 100 | 1.52764 | 150 | 1.514417 | 200 | 1.503625 | | | | | | |
| 4-Chlorotoluene | 100 | 1.720962 | 150 | 1.745691 | 200 | 1.735362 | | | | | | |
| Cyclohexane | 100 | 0.4088501 | 150 | 0.4185832 | 200 | 0.4205054 | | | | | | |
| Dibromochloromethane | 100 | 0.5342505 | 150 | 0.5344027 | 200 | 0.5202787 | | | | | | |
| 1,2-Dibromo-3-chloropropane | 100 | 0.1245736 | 150 | 0.1227042 | 200 | 0.1233507 | | | | | | |
| 1,2-Dibromoethane (EDB) | 100 | 0.5329544 | 150 | 0.5193847 | 200 | 0.5009687 | | | | | | |
| Dibromomethane | 100 | 0.1620901 | 150 | 0.1675086 | 200 | 0.1653088 | | | | | | |
| 1,2-Dichlorobenzene | 100 | 0.9798451 | 150 | 0.9607292 | 200 | 0.9510329 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 100 | 1.028373 | 150 | 0.998828 | 200 | 1.002863 | | | | | | |
| 1,4-Dichlorobenzene | 100 | 1.0591 | 150 | 1.030866 | 200 | 1.009536 | | | | | | |
| Dichlorodifluoromethane | 100 | 0.3117621 | 150 | 0.3095106 | 200 | 0.3036366 | | | | | | |
| 1,1-Dichloroethane | 100 | 0.4650846 | 150 | 0.4714799 | 200 | 0.4701173 | | | | | | |
| 1,2-Dichloroethane | 100 | 0.3454874 | 150 | 0.3557143 | 200 | 0.3525558 | | | | | | |
| 1,1-Dichloroethene | 100 | 0.204577 | 150 | 0.2000217 | 200 | 0.2103732 | | | | | | |
| cis-1,2-Dichloroethene | 100 | 0.2594392 | 150 | 0.2625341 | 200 | 0.2612869 | | | | | | |
| trans-1,2-Dichloroethene | 100 | 0.2320617 | 150 | 0.2404701 | 200 | 0.2408501 | | | | | | |
| 1,2-Dichloroethene (total) | 200 | 0.2457505 | 300 | 0.2515021 | 400 | 0.2510685 | | | | | | |
| 1,2-Dichloropropane | 100 | 0.2768431 | 150 | 0.2841096 | 200 | 0.2821266 | | | | | | |
| 1,3-Dichloropropane | 100 | 0.7927853 | 150 | 0.7731411 | 200 | 0.7493176 | | | | | | |
| 2,2-Dichloropropane | 100 | 0.305663 | 150 | 0.3168261 | 200 | 0.3142077 | | | | | | |
| 1,1-Dichloropropene | 100 | 0.3115563 | 150 | 0.3233728 | 200 | 0.3222422 | | | | | | |
| cis-1,3-Dichloropropene | 100 | 0.3828268 | 150 | 0.3965628 | 200 | 0.395178 | | | | | | |
| trans-1,3-Dichloropropene | 100 | 0.7696532 | 150 | 0.7817741 | 200 | 0.7646546 | | | | | | |
| 1,3-Dichloropropene (total) | 200 | 0.3653738 | 300 | 0.3800619 | 400 | 0.3801002 | | | | | | |
| Diisopropyl Ether | 100 | 1.11285 | 150 | 1.134986 | 200 | 1.107778 | | | | | | |
| Ethylbenzene | 100 | 1.937883 | 150 | 1.922859 | 200 | 1.8281 | | | | | | |
| Ethyl tert-Butyl Ether | 100 | 0.8342713 | 150 | 0.8474832 | 200 | 0.8437941 | | | | | | |
| Ethyl Methacrylate | 100 | 0.6893992 | 150 | 0.6995502 | 200 | 0.6764212 | | | | | | |
| Hexachlorobutadiene | 100 | 0.2183398 | 150 | 0.2151024 | 200 | 0.2166238 | | | | | | |
| 2-Hexanone | | | | | | | 1 | 0.5026459 | 2 | 0.5797565 | 4 | 0.4901297 |
| Iodomethane | 100 | 0.2889175 | 150 | 0.3081212 | 200 | 0.3008402 | | | | | | |
| Isopropylbenzene | 100 | 1.506733 | 150 | 1.473016 | 200 | 1.422801 | | | | | | |
| p-Isopropyltoluene | 100 | 1.637658 | 150 | 1.625244 | 200 | 1.615128 | | | | | | |
| Methylene chloride | 100 | 0.2516857 | 150 | 0.2554455 | 200 | 0.2533425 | | | | | | |
| Methyl Acetate | 100 | 0.2201898 | 150 | 0.2211768 | 200 | 0.2256047 | | | | | | |
| Methylcyclohexane | 100 | 0.2949703 | 150 | 0.3038449 | 200 | 0.3052717 | | | | | | |
| Naphthalene | 100 | 1.347997 | 150 | 1.313537 | 200 | 1.294839 | | | | | | |
| Methyl Methacrylate | 100 | 0.2694595 | 150 | 0.2856965 | 200 | 0.2875679 | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | 1 | 0.2715508 | 2 | 0.2845776 | 4 | 0.2933364 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Methyl t-Butyl Ether | 100 | 0.5988705 | 150 | 0.6159157 | 200 | 0.6139185 | | | | | | |
| n-Propylbenzene | 100 | 2.408552 | 150 | 2.369597 | 200 | 2.286507 | | | | | | |
| Styrene | 100 | 1.294683 | 150 | 1.308169 | 200 | 1.270967 | | | | | | |
| 1,1,2,2-Tetrachloroethane | 100 | 0.713353 | 150 | 0.6930676 | 200 | 0.6933867 | | | | | | |
| 1,1,1,2-Tetrachloroethane | 100 | 0.475352 | 150 | 0.4757034 | 200 | 0.4682421 | | | | | | |
| tert-Butyl alcohol | 500 | 2.167814E-02 | 750 | 2.229985E-02 | 1000 | 2.231197E-02 | | | | | | |
| Tetrachloroethene | 100 | 0.4520485 | 150 | 0.4602833 | 200 | 0.448791 | | | | | | |
| Toluene | 100 | 1.081687 | 150 | 1.095633 | 200 | 1.082227 | | | | | | |
| 1,2,3-Trichlorobenzene | 100 | 0.4923064 | 150 | 0.4935776 | 200 | 0.4830579 | | | | | | |
| 1,2,4-Trichlorobenzene | 100 | 0.5539334 | 150 | 0.560741 | 200 | 0.5458707 | | | | | | |
| 1,1,2-Trichloroethane | 100 | 0.4151994 | 150 | 0.4180961 | 200 | 0.3989418 | | | | | | |
| 1,1,1-Trichloroethane | 100 | 0.3158352 | 150 | 0.3216286 | 200 | 0.327623 | | | | | | |
| Tetrahydrofuran | 100 | 7.667164E-02 | 150 | 7.949791E-02 | 200 | 7.960101E-02 | | | | | | |
| Trichloroethene | 100 | 0.23727 | 150 | 0.2431529 | 200 | 0.2463272 | | | | | | |
| Trichlorofluoromethane | 100 | 0.3969179 | 150 | 0.3949105 | 200 | 0.3914032 | | | | | | |
| 1,2,3-Trichloropropane | 100 | 0.1423161 | 150 | 0.1506411 | 200 | 0.1443797 | | | | | | |
| 1,3,5-Trimethylbenzene | 100 | 1.583804 | 150 | 1.575997 | 200 | 1.565018 | | | | | | |
| 1,2,4-Trimethylbenzene | 100 | 1.633456 | 150 | 1.64197 | 200 | 1.585531 | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 100 | 0.2067751 | 150 | 0.2062075 | 200 | 0.2127444 | | | | | | |
| Vinyl chloride | 100 | 0.2340032 | 150 | 0.2065956 | 200 | 0.1971065 | | | | | | |
| m,p-Xylene | 200 | 1.501925 | 300 | 1.462725 | 400 | 1.317357 | | | | | | |
| o-Xylene | 100 | 1.565988 | 150 | 1.553286 | 200 | 1.508714 | | | | | | |
| Vinyl acetate | 199.9 | 0.3826316 | 299.8 | 0.3832969 | 399.8 | 0.3787505 | | | | | | |
| Xylenes (total) | 300 | 1.523279 | 450 | 1.492912 | 600 | 1.381143 | | | | | | |
| Dibromofluoromethane | | | | | | | 30 | 0.305082 | 30 | 0.3121115 | 40 | 0.2808014 |
| 1,2-Dichloroethane-d4 | | | | | | | 30 | 0.060848 | 30 | 6.200351E-02 | 40 | 0.057634 |
| Toluene-d8 | | | | | | | 30 | 2.175583 | 30 | 2.133059 | 40 | 1.993034 |
| tert-Amyl alcohol | 500 | 1.750579E-02 | 750 | 1.752437E-02 | 1000 | 1.792482E-02 | | | | | | |
| tert-Amyl ethyl ether | 100 | 0.6929417 | 150 | 0.7127362 | 200 | 0.7089255 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 10 | 0.1058109 | 20 | 9.662517E-02 | 100 | 9.160077E-02 | 200 | 8.873568E-02 | 300 | 8.776138E-02 | 400 | 0.0912852 |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 50 | 0.8179282 | 60 | 0.8024138 | 70 | 0.7653987 | 30 | 0.9016312 | 30 | 0.8719414 | 30 | 0.8837117 |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 10 | 0.1154252 | 20 | 0.1283318 | 100 | 0.140829 | 200 | 0.1341546 | 300 | 0.1343933 | 400 | 0.1349522 |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| 1,3-Dichloropropene (total) | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 10 | 0.4151944 | 20 | 0.4738867 | 100 | 0.4647011 | 200 | 0.4730331 | 300 | 0.4535798 | 400 | 0.4782568 |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 10 | 0.2591883 | 20 | 0.2753029 | 100 | 0.2847717 | 200 | 0.2842831 | 300 | 0.2727058 | 400 | 0.2794371 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Methyl t-Butyl Ether | | | | | | | | | | | | |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 50 | 0.2831616 | 60 | 0.2832524 | 70 | 0.2746393 | 30 | 0.3029928 | 30 | 0.2980317 | 30 | 0.2988701 |
| 1,2-Dichloroethane-d4 | 50 | 6.188906E-02 | 60 | 5.667148E-02 | 70 | 5.616298E-02 | 30 | 0.0631027 | 30 | 5.735518E-02 | 30 | 5.957207E-02 |
| Toluene-d8 | 50 | 1.973692 | 60 | 1.954738 | 70 | 1.847237 | 30 | 2.162138 | 30 | 2.08284 | 30 | 2.181926 |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 0.095435 | 8.130072 | 3.761286 | 9.346288E-02 | | | 15 | |
| Acrolein | 5.338917E-02 | 25.4234 | 3.639333 | 0.1077746 | 0.9990652 | | 0.995 | |
| Acrylonitrile | 9.529337E-02 | 7.569294 | 4.589333 | 0.1474434 | | | 15 | |
| Benzene | 0.8165687 | 6.399931 | 7.650444 | 5.168866E-02 | | | 15 | |
| Bromobenzene | 0.622891 | 4.364366 | 12.40278 | 5.143733E-02 | | | 15 | |
| Bromochloromethane | 0.1322805 | 12.97677 | 6.738889 | 0.0928818 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.6611555 | 6.555788 | 7.841111 | 7.572897E-02 | | | 15 | |
| Bromodichloromethane | 0.3200121 | 9.249059 | 8.636667 | 6.813749E-02 | | | 15 | |
| Bromoform | 0.3605704 | 7.045665 | 11.81067 | 5.905082E-02 | | | SPCC (0.1) | |
| Bromomethane | 0.2069788 | 16.64528 | 2.818556 | 0.1637358 | 0.9991868 | | 0.995 | |
| Bromofluorobenzene | 0.8430908 | 5.464727 | 12.24611 | 1.755882E-02 | | | 15 | |
| n-Butylbenzene | 1.504611 | 6.561854 | 13.83644 | 3.032147E-02 | | | 15 | |
| 2-Butanone | 0.1381845 | 9.827188 | 6.202444 | 5.654298E-02 | | | 15 | |
| sec-Butylbenzene | 1.956089 | 7.131853 | 13.29478 | 2.976972E-02 | | | 15 | |
| tert-Butylbenzene | 1.609584 | 9.357792 | 13.06044 | 5.049762E-02 | | | 15 | |
| Carbon disulfide | 0.6773833 | 4.033366 | 4.763333 | 4.957716E-02 | | | 15 | |
| Carbon tetrachloride | 0.2397952 | 7.491069 | 7.617778 | 6.986726E-02 | | | 15 | |
| Chlorobenzene | 1.27837 | 6.608143 | 11.08278 | 5.423621E-02 | | | SPCC (0.3) | |
| Chloroethane | 0.2523708 | 10.49478 | 2.951 | 0.1958913 | | | 15 | |
| Chloroform | 0.4294733 | 10.46046 | 6.715889 | 8.754408E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.1717231 | 5.52504 | 8.994556 | 6.848219E-02 | | | 15 | |
| Chloromethane | 0.4745789 | 7.851537 | 2.228667 | 0.1926709 | | | SPCC (0.1) | |
| 1-Chlorohexane | 1.344992 | 11.02804 | 11.049 | 3.869327E-02 | | | 15 | |
| 2-Chlorotoluene | 1.535306 | 9.158972 | 12.625 | 3.281746E-02 | | | 15 | |
| 4-Chlorotoluene | 1.734834 | 5.262659 | 12.68844 | 4.818632E-02 | | | 15 | |
| Cyclohexane | 0.4138601 | 6.775805 | 7.549889 | 5.761858E-02 | | | 15 | |
| Dibromochloromethane | 0.5303833 | 3.2862 | 10.31456 | 6.028785E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1125661 | 12.02491 | 14.44125 | 3.902792E-02 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5576892 | 9.147644 | 10.52789 | 5.679238E-02 | | | 15 | |
| Dibromomethane | 0.1598632 | 6.798654 | 8.573222 | 6.249779E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 0.9737531 | 6.602409 | 13.79711 | 3.249335E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.069325 | 10.20858 | 13.38444 | 4.478999E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1110001 | Instrument: | MS-VOA5 |
| Matrix: | Water | Calibration Dates: | 4/15/11 9:53 4/15/11 17:45 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.125829 | 14.93571 | 13.47644 | 4.420105E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.2985279 | 5.170388 | 2.017222 | 0.1785951 | 0.9997339 | | 0.995 | |
| 1,1-Dichloroethane | 0.4614852 | 7.557788 | 5.750445 | 9.968297E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.3353382 | 6.162455 | 7.478667 | 8.089861E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2191262 | 13.53056 | 4.228111 | 0.1783801 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.2631228 | 9.248231 | 6.459889 | 8.951479E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.2436546 | 12.59655 | 5.375111 | 0.1345106 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2533887 | 9.456715 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.2855651 | 8.528436 | 8.460444 | 7.290993E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8114537 | 6.040153 | 10.05411 | 0.0399961 | | | 15 | |
| 2,2-Dichloropropane | 0.3095193 | 8.274472 | 6.569333 | 9.334919E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.3108414 | 6.366392 | 7.497444 | 8.152097E-02 | | | 15 | |
| cis-1,3-Dichloropropene | 0.3753906 | 7.176617 | 9.211445 | 6.630273E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7331598 | 6.458765 | 9.686222 | 5.472616E-02 | | | 15 | |
| 1,3-Dichloropropene (total) | 0.3472984 | 7.996073 | 9.686222 | 5.472616E-02 | | | 15 | |
| Diisopropyl Ether | 1.080593 | 3.893299 | 6.121667 | 6.412666E-02 | | | 15 | |
| Ethylbenzene | 2.034033 | 6.673525 | 11.22944 | 0.0629414 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 0.8248362 | 5.044401 | 6.587778 | 7.160754E-02 | | | 15 | |
| Ethyl Methacrylate | 0.712546 | 5.877163 | 9.872444 | 5.863743E-02 | | | 15 | |
| Hexachlorobutadiene | 0.2336594 | 14.11394 | 15.80222 | 3.541708E-02 | | | 15 | |
| 2-Hexanone | 0.4812427 | 9.22694 | 9.992778 | 3.236776E-02 | | | 15 | |
| Iodomethane | 0.2291179 | 30.40252 | 4.4235 | 0.1630534 | 0.9990179 | | 0.995 | |
| Isopropylbenzene | 1.559553 | 8.952109 | 12.13022 | 3.579421E-02 | | | 15 | |
| p-Isopropyltoluene | 1.67706 | 6.663178 | 13.43278 | 2.871329E-02 | | | 15 | |
| Methylene chloride | 0.2560903 | 7.621563 | 4.710375 | 0.1147551 | | | 15 | |
| Methyl Acetate | 0.243392 | 26.37392 | 4.575 | 9.409387E-02 | 0.999715 | | 0.995 | |
| Methylcyclohexane | 0.3004004 | 8.944592 | 8.791 | 4.837696E-02 | | | 15 | |
| Naphthalene | 1.327067 | 5.143918 | 15.67311 | 3.798954E-02 | | | 15 | |
| Methyl Methacrylate | 0.2826983 | 13.92008 | 7.548778 | 7.251518E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.2783504 | 3.582551 | 9.140111 | 2.964067E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.5601073 | 13.42515 | 5.375111 | 7.721725E-02 | | | 15 | |
| n-Propylbenzene | 2.48505 | 6.85256 | 12.53956 | 5.596903E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: CTOJM26_008
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTO JM26 Saufley
Calibration: 1110001
Instrument: MS-VOA5
Matrix: Water
Calibration Dates: 4/15/11 9:53 4/15/11 17:45

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Styrene | 1.314151 | 5.413242 | 11.70344 | 5.177519E-02 | | | 15 | |
| 1,1,2,2-Tetrachloroethane | 0.7120744 | 7.923079 | 12.05467 | 5.038292E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.4766101 | 6.262437 | 11.12456 | 4.672365E-02 | | | 15 | |
| tert-Butyl alcohol | 2.184747E-02 | 10.65008 | 4.374778 | 0.1799545 | | | 15 | |
| Tetrachloroethene | 0.4624975 | 10.6729 | 10.424 | 5.774833E-02 | | | 15 | |
| Toluene | 1.118865 | 6.198212 | 9.688333 | 5.751295E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.510204 | 11.15195 | 15.95856 | 3.955662E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.5978181 | 13.4198 | 15.521 | 2.557265E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.4520995 | 10.62213 | 9.842667 | 6.054729E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3137102 | 6.314808 | 7.277333 | 7.972291E-02 | | | 15 | |
| Tetrahydrofuran | 8.753059E-02 | 24.39609 | 6.928 | 8.088625E-02 | 0.9995802 | | 0.995 | |
| Trichloroethene | 0.2384711 | 6.483154 | 8.412333 | 8.104842E-02 | | | 15 | |
| Trichlorofluoromethane | 0.4040041 | 4.421798 | 3.443333 | 0.0711888 | | | 15 | |
| 1,2,3-Trichloropropane | 0.1604519 | 12.94579 | 12.18167 | 0.049631 | | | 15 | |
| 1,3,5-Trimethylbenzene | 1.631689 | 7.556347 | 12.71789 | 0.0493266 | | | 15 | |
| 1,2,4-Trimethylbenzene | 1.658949 | 7.474238 | 13.09133 | 5.295763E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2072873 | 8.432636 | 4.302556 | 0.1663512 | | | 15 | |
| Vinyl chloride | 0.3152422 | 29.09972 | 2.374222 | 0.1915386 | | 0.9981236 | CCC (20) | * |
| m,p-Xylene | 1.557766 | 9.078421 | 11.34 | 6.848237E-02 | | | 15 | |
| o-Xylene | 1.652495 | 8.873298 | 11.73289 | 5.401407E-02 | | | 15 | |
| Vinyl acetate | 0.3762815 | 6.768409 | 5.822778 | 0.1039803 | | | 15 | |
| Xylenes (total) | 1.589343 | 8.838143 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.2932159 | 4.427291 | 6.893333 | 0.0409069 | | | 15 | |
| 1,2-Dichloroethane-d4 | 0.059471 | 4.368149 | 7.391111 | 4.109608E-02 | | | 15 | |
| Toluene-d8 | 2.056027 | 5.771716 | 9.617222 | 3.111463E-02 | | | 15 | |
| tert-Amyl alcohol | 1.751761E-02 | 4.453294 | 7.088 | 8.142149E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.6737656 | 4.880926 | 8.727444 | 6.940179E-02 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1110001 |
| Lab File ID: | 0415ICV2.D | Calibration Date: | 04/15/11 09:53 |
| Sequence: | 1D10810 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10810-ICV2 | Injection Time: | 14:01 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 101.0 | 0.8165687 | 0.824451 | | 1.0 | 20 |
| Ethylbenzene | A | 100.0 | 99.98 | 2.034033 | 2.033602 | | -0.02 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 107.3 | 0.5601073 | 0.6009371 | | 7.3 | 20 |
| Toluene | A | 100.0 | 100.4 | 1.118865 | 1.123341 | | 0.4 | 20 |
| Xylenes (total) | A | 300.0 | 298.9 | 1.589343 | 1.583136 | | -0.4 | 20 |
| Bromofluorobenzene | A | 30.00 | 29.40 | 0.8430908 | 0.8261078 | | -2.0 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.09 | 0.2932159 | 0.3038724 | | 3.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 31.37 | 0.059471 | 6.218618E-02 | | 4.6 | 20 |
| Toluene-d8 | A | 30.00 | 29.51 | 2.056027 | 2.022546 | | -1.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0418TU1.D | Injection Date: | 04/18/11 |
| Instrument ID: | MS-VOA5 | Injection Time: | 07:37 |
| Sequence: | 1D10912 | Lab Sample ID: | 1D10912-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 20.3 | PASS |
| 75 | 30 - 60% of 95 | 42.1 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 7.75 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 88.5 | PASS |
| 175 | 5 - 9% of 174 | 6.44 | PASS |
| 176 | 95 - 101% of 174 | 96.2 | PASS |
| 177 | 5 - 9% of 176 | 6.56 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA5 | Calibration: | 1110001 |
| Lab File ID: | 0418CC1.D | Calibration Date: | 04/15/11 09:53 |
| Sequence: | 1D10912 | Injection Date: | 04/18/11 |
| Lab Sample ID: | 1D10912-CCV1 | Injection Time: | 08:02 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 103.2 | 0.8165687 | 0.8428248 | | 3.2 | 20 |
| Ethylbenzene | A | 100.0 | 99.54 | 2.034033 | 2.024718 | | -0.5 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 108.0 | 0.5601073 | 0.6051597 | | 8.0 | 20 |
| Toluene | A | 100.0 | 98.34 | 1.118865 | 1.100307 | | -1.7 | 20 |
| Xylenes (total) | A | 300.0 | 292.7 | 1.589343 | 1.55019 | | -2.5 | 20 |
| Bromofluorobenzene | A | 30.00 | 28.91 | 0.8430908 | 0.8123636 | | -3.6 | 20 |
| Dibromofluoromethane | A | 30.00 | 31.50 | 0.2932159 | 0.3078774 | | 5.0 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.88 | 0.059471 | 6.122574E-02 | | 3.0 | 20 |
| Toluene-d8 | A | 30.00 | 29.57 | 2.056027 | 2.026554 | | -1.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10912 | Instrument: | MS-VOA5 |
| Calibration: | 1110001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10912-TUN1 | 0418TU1.D | 04/18/11 07:37 |
| Calibration Check | 1D10912-CCV1 | 0418CC1.D | 04/18/11 08:02 |
| LCS | 1D18005-BS1 | 0418LS1.D | 04/18/11 08:28 |
| Blank | 1D18005-BLK1 | 0418BL1.D | 04/18/11 09:45 |
| Trip Blank 9478 | 1104165-08 | 0416508.D | 04/18/11 11:25 |
| LCS Dup | 1D18005-BSD1 | 0418LD1.D | 04/18/11 19:19 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D18005 Batch Matrix: Water Preparation: 5030B

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| Trip Blank 9478 | 1104165-08 | 04/18/11 00:00 | 5.00 | 5.00 |
| Blank | 1D18005-BLK1 | 04/18/11 00:00 | 5.00 | 5.00 |
| LCS | 1D18005-BS1 | 04/18/11 00:00 | 5.00 | 5.00 |
| LCS Dup | 1D18005-BSD1 | 04/18/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D18005-BLK1 | File ID: | 0418BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/18/11 09:45 |
| Solids: | | Preparation: | 5030B | Dilution: | |

Batch: 1D18005 Sequence: 1D10912 Calibration: 1110001 Instrument: MS-VOA5

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.250 | 0.500 | 1.00 | U |
| 100-41-4 | Ethylbenzene | | 0.250 | 0.500 | 1.00 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.250 | 0.500 | 1.00 | U |
| 108-88-3 | Toluene | | 0.250 | 0.500 | 1.00 | U |
| 1330-20-7 | Xylenes (total) | | 0.750 | 1.50 | 3.00 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 30.00 | 31.05 | 104 | 75 - 120 | |
| Dibromofluoromethane | 30.00 | 31.05 | 103 | 85 - 115 | |
| 1,2-Dichloroethane-d4 | 30.00 | 32.32 | 108 | 70 - 120 | |
| Toluene-d8 | 30.00 | 30.98 | 103 | 85 - 120 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Water | | |
| Batch: | 1D18005 | Laboratory ID: | 1D18005-BS1 |
| Preparation: | 5030B | Initial/Final: | 5 mL / 5 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 50.00 | 51.1 | 102 | 80 - 120 |
| Ethylbenzene | 50.00 | 48.9 | 97.9 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 54.9 | 110 | 65 - 125 |
| Toluene | 50.00 | 49.0 | 97.9 | 75 - 120 |
| Xylenes (total) | 150.0 | 144 | 95.8 | 75 - 130 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Benzene | 50.00 | 54.5 | 109 | 6.50 | 30 | 80 - 120 |
| Ethylbenzene | 50.00 | 50.8 | 102 | 3.80 | 30 | 75 - 125 |
| Methyl t-Butyl Ether | 50.00 | 53.8 | 108 | 2.12 | 30 | 65 - 125 |
| Toluene | 50.00 | 51.8 | 104 | 5.71 | 30 | 75 - 120 |
| Xylenes (total) | 150.0 | 152 | 101 | 5.78 | 30 | 75 - 130 |

# ANALYSIS SEQUENCE SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1C08024 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1C08024-TUN1 | 0208TUN1.D | 02/08/11 16:12 |
| Cal Standard | 1C08024-CAL1 | 0208CAL1.D | 02/08/11 16:35 |
| Cal Standard | 1C08024-CAL2 | 0208CAL2.D | 02/08/11 16:59 |
| Cal Standard | 1C08024-CAL3 | 0208CAL3.D | 02/08/11 17:23 |
| Cal Standard | 1C08024-CAL4 | 0208CAL4.D | 02/08/11 17:47 |
| Cal Standard | 1C08024-CAL5 | 0208CAL5.D | 02/08/11 18:11 |
| Cal Standard | 1C08024-CAL7 | 0208CAL7.D | 02/08/11 18:59 |
| Cal Standard | 1C08024-CAL8 | 0208CAL8.D | 02/08/11 19:23 |
| MS Tune | 1C08024-TUN2 | 0208TUN2.D | 02/09/11 06:45 |
| Cal Standard | 1C08024-CAL6 | 208CAL6A.D | 02/09/11 07:13 |
| Initial Cal Check | 1C08024-ICV1 | 208ICV1A.D | 02/09/11 07:37 |
| MS Tune | 1C08024-TUN3 | 0208TUN3.D | 02/09/11 15:56 |
| Cal Standard | 1C08024-CALH | SEQ-CALH.D | 02/09/11 16:20 |
| Cal Standard | 1C08024-CALI | SEQ-CALI.D | 02/09/11 16:45 |
| Cal Standard | 1C08024-CALJ | SEQ-CALJ.D | 02/09/11 17:09 |
| Cal Standard | 1C08024-CALK | SEQ-CALK.D | 02/09/11 17:33 |
| Cal Standard | 1C08024-CALL | SEQ-CALL.D | 02/09/11 17:56 |
| Cal Standard | 1C08024-CALM | SEQ-CALM.D | 02/09/11 18:20 |
| Cal Standard | 1C08024-CALN | SEQ-CALN.D | 02/09/11 18:44 |
| Cal Standard | 1C08024-CALO | SEQ-CALO.D | 02/09/11 19:08 |
| MS Tune | 1C08024-TUN4 | 0211TUN4.D | 02/11/11 14:35 |
| MS Tune | 1C08024-TUN5 | 0317TUN5.D | 03/17/11 09:51 |
| Cal Standard | 1C08024-CAL9 | 0317CAL1.D | 03/17/11 12:18 |
| Cal Standard | 1C08024-CALA | 0317CAL2.D | 03/17/11 12:43 |
| Cal Standard | 1C08024-CALB | 0317CAL3.D | 03/17/11 13:07 |
| Cal Standard | 1C08024-CALC | 0317CAL4.D | 03/17/11 13:32 |
| Cal Standard | 1C08024-CALD | 0317CAL5.D | 03/17/11 13:57 |
| Cal Standard | 1C08024-CALE | 0317CAL6.D | 03/17/11 14:21 |
| Cal Standard | 1C08024-CALF | 0317CAL7.D | 03/17/11 14:46 |
| Cal Standard | 1C08024-CALG | 0317CAL8.D | 03/17/11 15:11 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN1.D | Injection Date: | 02/08/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 16:12 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 21.5 | PASS |
| 75 | 30 - 60% of 95 | 39.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.17 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 84.4 | PASS |
| 175 | 5 - 9% of 174 | 7.21 | PASS |
| 176 | 95 - 101% of 174 | 96.5 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN2.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 06:45 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 23.4 | PASS |
| 75 | 30 - 60% of 95 | 41.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.69 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 82.1 | PASS |
| 175 | 5 - 9% of 174 | 7.04 | PASS |
| 176 | 95 - 101% of 174 | 95 | PASS |
| 177 | 5 - 9% of 176 | 6.33 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0208TUN3.D | Injection Date: | 02/09/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 15:56 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN3 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.4 | PASS |
| 75 | 30 - 60% of 95 | 43.2 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.71 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 63.8 | PASS |
| 175 | 5 - 9% of 174 | 7.5 | PASS |
| 176 | 95 - 101% of 174 | 97.4 | PASS |
| 177 | 5 - 9% of 176 | 6.46 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0211TUN4.D | Injection Date: | 02/11/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 14:35 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN4 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 22.3 | PASS |
| 75 | 30 - 60% of 95 | 40 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.39 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 86.4 | PASS |
| 175 | 5 - 9% of 174 | 6.88 | PASS |
| 176 | 95 - 101% of 174 | 95.8 | PASS |
| 177 | 5 - 9% of 176 | 6.12 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0317TUN5.D | Injection Date: | 03/17/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 09:51 |
| Sequence: | 1C08024 | Lab Sample ID: | 1C08024-TUN5 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 26.1 | PASS |
| 75 | 30 - 60% of 95 | 46.6 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.79 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 69.4 | PASS |
| 175 | 5 - 9% of 174 | 7.65 | PASS |
| 176 | 95 - 101% of 174 | 95.3 | PASS |
| 177 | 5 - 9% of 176 | 6.71 | PASS |

# INITIAL CALIBRATION DATA

## SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTO JM26 Saufley

Calibration: 1081001

Instrument: MS-VOA6

Matrix: Water

Calibration Dates: 2/8/11 16:35 3/17/11 15:11

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | 10 | 3.756483E-02 | 25.01 | 3.592496E-02 | 50.02 | 3.279747E-02 | 100 | 3.027563E-02 | 250.1 | 2.616578E-02 | 500.2 | 2.836008E-02 |
| Acrylonitrile | 9.996 | 7.751938E-02 | 24.99 | 6.934293E-02 | 49.98 | 0.1036364 | 99.96 | 6.371372E-02 | 249.9 | 9.483173E-02 | 499.8 | 0.1038235 |
| Benzene | 2 | 1.061782 | 5 | 1.085753 | 10 | 1.07756 | 20 | 1.101538 | 50 | 1.062681 | 100 | 1.168729 |
| Bromobenzene | 2 | 0.7470029 | 5 | 0.690608 | 10 | 0.73579 | 20 | 0.7029826 | 50 | 0.6759098 | 100 | 0.7159262 |
| Bromochloromethane | 2 | 0.1531184 | 5 | 0.1481263 | 10 | 0.1471181 | 20 | 0.1476266 | 50 | 0.1386942 | 100 | 0.1478994 |
| Tert-Amyl Methyl Ether | 2 | 0.7507538 | 5 | 0.7660239 | 10 | 0.7592371 | 20 | 0.7607483 | 50 | 0.7115281 | 100 | 0.7910823 |
| Bromodichloromethane | 2 | 0.3104988 | 5 | 0.3071958 | 10 | 0.3190153 | 20 | 0.3117362 | 50 | 0.3116093 | 100 | 0.3449616 |
| Bromoform | 2 | ~~0.2616829~~ | 5 | 0.2798085 | 10 | 0.3012296 | 20 | 0.3115155 | 50 | 0.3087993 | 100 | 0.3759775 |
| Bromomethane | 2 | ~~7.371335E-02~~ | 5 | 7.750693E-02 | 10 | 8.466907E-02 | 20 | 8.624543E-02 | 50 | 0.0937419 | 100 | 0.1153427 |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | 2 | 2.785165 | 5 | 2.617003 | 10 | 2.816419 | 20 | 2.750954 | 50 | 2.622143 | 100 | 2.894858 |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | 2 | 3.151285 | 5 | 3.066315 | 10 | 3.323505 | 20 | 3.301126 | 50 | 3.202842 | 100 | 3.459591 |
| tert-Butylbenzene | 2 | 2.17391 | 5 | 2.031212 | 10 | 2.135985 | 20 | 2.119383 | 50 | 2.039649 | 100 | 2.229972 |
| Carbon disulfide | 2 | 0.7149891 | 5 | 0.6924307 | 10 | 0.7993255 | 20 | 0.5551867 | 50 | 0.8103692 | 100 | 0.9498407 |
| Carbon tetrachloride | 2 | 0.2889103 | 5 | 0.2860839 | 10 | 0.288463 | 20 | 0.3030137 | 50 | 0.3080328 | 100 | 0.35016 |
| Chlorobenzene | 2 | 1.875558 | 5 | 1.771786 | 10 | 1.803756 | 20 | 1.765153 | 50 | 1.690779 | 100 | 1.905895 |
| Chloroethane | 2 | 8.705562E-02 | 5 | 7.229842E-02 | 10 | 8.957504E-02 | 20 | 8.400356E-02 | 50 | 8.288075E-02 | 100 | 8.787256E-02 |
| Chloroform | 2 | 0.4898649 | 5 | 0.4751689 | 10 | 0.4707317 | 20 | 0.4865336 | 50 | 0.457359 | 100 | 0.5020879 |
| 2-Chloroethyl vinyl ether | 3.99 | 0.1848713 | 9.975 | 0.1784075 | 19.95 | 0.1770296 | 39.9 | 0.1763524 | 99.75 | 0.1619434 | 199.5 | 0.1744515 |
| Chloromethane | 2 | 0.35766 | 5 | 0.3572945 | 10 | 0.3695839 | 20 | 0.3693712 | 50 | 0.3945523 | 100 | 0.3919691 |
| 1-Chlorohexane | 2.004 | 2.22108 | 5.01 | 2.023071 | 10.02 | 2.169874 | 20.04 | 2.118177 | 50.1 | 2.018756 | 100.2 | 2.112281 |
| 2-Chlorotoluene | 2 | 2.026203 | 5 | 2.003491 | 10 | 2.116461 | 20 | 2.10787 | 50 | 1.979201 | 100 | 2.20004 |
| 4-Chlorotoluene | 2 | 2.219507 | 5 | 2.256409 | 10 | 2.307302 | 20 | 2.295402 | 50 | 2.228706 | 100 | 2.424602 |
| Cyclohexane | 2 | 0.7461476 | 5 | 0.6373068 | 10 | 0.6643557 | 20 | 0.6754938 | 50 | 0.6609604 | 100 | 0.711204 |
| Dibromochloromethane | 2 | 0.4664542 | 5 | 0.4878683 | 10 | 0.5045771 | 20 | 0.5001025 | 50 | 0.4934865 | 100 | 0.5950801 |
| 1,2-Dibromo-3-chloropropane | 2 | 0.11204 | 5 | 0.1045764 | 10 | 0.1082321 | 20 | 0.1108009 | 50 | 0.1044906 | 100 | 0.1137534 |
| 1,2-Dibromoethane (EDB) | 2 | 0.6004558 | 5 | 0.5329797 | 10 | 0.4938069 | 20 | 0.4902496 | 50 | 0.458391 | 100 | 0.515838 |
| Dibromomethane | 2 | 0.1753952 | 5 | 0.1633735 | 10 | 0.1759811 | 20 | 0.1750685 | 50 | 0.1642084 | 100 | 0.1767537 |
| 1,2-Dichlorobenzene | 2 | 1.25758 | 5 | 1.158089 | 10 | 1.202775 | 20 | 1.190451 | 50 | 1.107789 | 100 | 1.182512 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 2 | 1.313197 | 5 | 1.280567 | 10 | 1.331553 | 20 | 1.320101 | 50 | 1.222079 | 100 | 1.308105 |
| 1,4-Dichlorobenzene | 2 | 1.397145 | 5 | 1.336716 | 10 | 1.321149 | 20 | 1.291749 | 50 | 1.239289 | 100 | 1.30013 |
| Dichlorodifluoromethane | 2 | 0.2899824 | 5 | 0.2433753 | 10 | 0.2462849 | 20 | 0.2339546 | 50 | 0.2969228 | 100 | 0.3137854 |
| 1,1-Dichloroethane | 2 | 0.5414735 | 5 | 0.5528414 | 10 | 0.6051287 | 20 | 0.5926146 | 50 | 0.5757458 | 100 | 0.6148422 |
| 1,2-Dichloroethane | 2 | 0.293543 | 5 | 0.2842689 | 10 | 0.2959148 | 20 | 0.2875738 | 50 | 0.2714845 | 100 | 0.3087262 |
| 1,1-Dichloroethene | 2 | ~~0.1672813~~ | 5 | 0.1708818 | 10 | 0.2138923 | 20 | 0.1881977 | 50 | 0.2206685 | 100 | 0.2484578 |
| cis-1,2-Dichloroethene | 2 | 0.3114254 | 5 | 0.3106307 | 10 | 0.3209246 | 20 | 0.3086273 | 50 | 0.3079395 | 100 | 0.3264114 |
| trans-1,2-Dichloroethene | 2 | 0.2866469 | 5 | 0.2498845 | 10 | 0.2830028 | 20 | 0.2781287 | 50 | 0.2772549 | 100 | 0.3027944 |
| 1,2-Dichloroethene (total) | 4 | 0.2990361 | 10 | 0.2802576 | 20 | 0.3019637 | 40 | 0.293378 | 100 | 0.2925972 | 200 | 0.3146029 |
| 1,2-Dichloropropane | 2 | 0.3763763 | 5 | 0.3682909 | 10 | 0.365142 | 20 | 0.3629965 | 50 | 0.3481348 | 100 | 0.3742469 |
| 1,3-Dichloropropane | 2 | 0.879273 | 5 | 0.7939543 | 10 | 0.8081485 | 20 | 0.7899708 | 50 | 0.73429 | 100 | 0.8173957 |
| 2,2-Dichloropropane | 2 | 0.3242779 | 5 | 0.3285206 | 10 | 0.3349875 | 20 | 0.3345004 | 50 | 0.3213804 | 100 | 0.3729991 |
| 1,1-Dichloropropene | 2 | 0.3884081 | 5 | 0.3484738 | 10 | 0.3805441 | 20 | 0.3847533 | 50 | 0.3792585 | 100 | 0.4104046 |
| cis-1,3-Dichloropropene | 2 | 0.4344839 | 5 | 0.4350143 | 10 | 0.4301103 | 20 | 0.4335544 | 50 | 0.4170583 | 100 | 0.4573277 |
| trans-1,3-Dichloropropene | 2 | 0.7683201 | 5 | 0.7138107 | 10 | 0.7232023 | 20 | 0.7117684 | 50 | 0.6927822 | 100 | 0.7933086 |
| Diisopropyl Ether | 2 | 1.643891 | 5 | 1.595466 | 10 | 1.621821 | 20 | 1.620216 | 50 | 1.573697 | 100 | 1.707769 |
| Ethylbenzene | 2 | 3.006193 | 5 | 2.923263 | 10 | 3.07896 | 20 | 3.067902 | 50 | 2.95293 | 100 | 3.41056 |
| Ethyl tert-Butyl Ether | 2 | 0.9974004 | 5 | 0.9712783 | 10 | 0.9963493 | 20 | 0.9846551 | 50 | 0.9564952 | 100 | 1.075788 |
| Ethyl Methacrylate | 2 | 0.8625155 | 5 | 0.8436295 | 10 | 0.7624561 | 20 | 0.7667309 | 50 | 0.7163738 | 100 | 0.8089864 |
| Hexachlorobutadiene | 2 | 0.4575836 | 5 | 0.4341365 | 10 | 0.4659515 | 20 | 0.4715648 | 50 | 0.4532541 | 100 | 0.5045612 |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | 2 | 0.248407 | 5 | 0.2548802 | 10 | 0.3049656 | 20 | 0.279838 | 50 | 0.3250018 | 100 | 0.3519559 |
| Isopropylbenzene | 2 | 2.294059 | 5 | 2.285611 | 10 | 2.452665 | 20 | 2.37677 | 50 | 2.275532 | 100 | 2.581928 |
| p-Isopropyltoluene | 2 | 2.309628 | 5 | 2.135441 | 10 | 2.337972 | 20 | 2.332356 | 50 | 2.269986 | 100 | 2.487688 |
| Methylene chloride | 2 | 0.7552542 | 5 | 0.4559193 | 10 | 0.3996641 | 20 | 0.2317498 | 50 | 0.2907731 | 100 | 0.3130779 |
| Methyl Acetate | 2 | 0.2236285 | 5 | 0.2514748 | 10 | 0.2597989 | 20 | 0.1718908 | 50 | 0.2310738 | 100 | 0.2529856 |
| Methylcyclohexane | 2 | 0.5012217 | 5 | 0.4741875 | 10 | 0.5071525 | 20 | 0.5214485 | 50 | 0.502103 | 100 | 0.5426753 |
| Naphthalene | 2 | 1.780473 | 5 | 1.614442 | 10 | 1.578626 | 20 | 1.557813 | 50 | 1.429284 | 100 | 1.560273 |
| Methyl Methacrylate | 2 | 0.48326 | 5 | 0.4803774 | 10 | 0.4711374 | 20 | 0.4626519 | 50 | 0.4558675 | 100 | 0.4859491 |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | 2 | 0.5759807 | 5 | 0.5826558 | 10 | 0.5951922 | 20 | 0.5754943 | 50 | 0.5694992 | 100 | 0.638687 |

# INITIAL CALIBRATION DATA

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11_16:35 3/17/11_15:11 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 2 | 3.79603 | 5 | 3.545272 | 10 | 3.80743 | 20 | 3.780267 | 50 | 3.661068 | 100 | 4.13336 |
| Styrene | 2 | 1.927309 | 5 | 1.80957 | 10 | 1.873548 | 20 | 1.872612 | 50 | 1.750939 | 100 | 1.970078 |
| 1,1,2,2-Tetrachloroethane | 2 | 0.6828267 | 5 | 0.7255559 | 10 | 0.7090542 | 20 | 0.6776878 | 50 | 0.6315376 | 100 | 0.71698 |
| 1,1,1,2-Tetrachloroethane | 2 | 0.6138791 | 5 | 0.5872829 | 10 | 0.6046367 | 20 | 0.6078519 | 50 | 0.5767041 | 100 | 0.6580373 |
| tert-Butyl alcohol | 10 | 3.247147E-02 | 25 | 2.832816E-02 | 50 | 2.641692E-02 | 100 | 2.675249E-02 | 250 | 2.407234E-02 | 500 | 2.525515E-02 |
| Tetrachloroethene | 2 | 0.6411317 | 5 | 0.5516078 | 10 | 0.6071488 | 20 | 0.5940988 | 50 | 0.5687704 | 100 | 0.6485346 |
| Toluene | 2 | 1.653855 | 5 | 1.500784 | 10 | 1.608872 | 20 | 1.546331 | 50 | 1.509546 | 100 | 1.656163 |
| 1,2,3-Trichlorobenzene | 2 | 0.7095767 | 5 | 0.7003469 | 10 | 0.7116627 | 20 | 0.6956501 | 50 | 0.6350796 | 100 | 0.6810502 |
| 1,2,4-Trichlorobenzene | 2 | 0.8162488 | 5 | 0.7952111 | 10 | 0.7953906 | 20 | 0.7745676 | 50 | 0.7371004 | 100 | 0.7827231 |
| 1,1,2-Trichloroethane | 2 | 0.5007809 | 5 | 0.4659105 | 10 | 0.4662858 | 20 | 0.4427537 | 50 | 0.416613 | 100 | 0.4616935 |
| 1,1,1-Trichloroethane | 2 | 0.3368524 | 5 | 0.3178967 | 10 | 0.3316859 | 20 | 0.3398842 | 50 | 0.3373299 | 100 | 0.3698448 |
| Tetrahydrofuran | 2 | 0.2155278 | 5 | 0.1543103 | 10 | 0.118979 | 20 | 0.1078508 | 50 | 9.851796E-02 | 100 | 0.1062613 |
| Trichloroethene | 2 | 0.328765 | 5 | 0.2905771 | 10 | 0.2943873 | 20 | 0.3047147 | 50 | 0.2969598 | 100 | 0.3201752 |
| Trichlorofluoromethane | 2 | 0.4417375 | 5 | 0.4173432 | 10 | 0.4186727 | 20 | 0.4473662 | 50 | 0.4334278 | 100 | 0.4536805 |
| 1,2,3-Trichloropropane | 2 | 0.1627907 | 5 | 0.1329942 | 10 | 0.134935 | 20 | 0.1426108 | 50 | 0.1239256 | 100 | 0.1396684 |
| 1,3,5-Trimethylbenzene | 2 | 2.255114 | 5 | 2.173421 | 10 | 2.276182 | 20 | 2.202211 | 50 | 2.172413 | 100 | 2.372903 |
| 1,2,4-Trimethylbenzene | 2 | 2.309479 | 5 | 2.14176 | 10 | 2.199332 | 20 | 2.211839 | 50 | 2.158688 | 100 | 2.3911 |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 2 | 0.268791 | 5 | 0.2260116 | 10 | 0.2709447 | 20 | 0.2430542 | 50 | 0.2542092 | 100 | 0.2843963 |
| Vinyl chloride | 2 | 0.2231652 | 5 | 0.1838824 | 10 | 0.1648936 | 20 | 0.1664933 | 50 | 0.2255206 | 100 | 0.2109722 |
| m,p-Xylene | 4 | 2.356566 | 10 | 2.201289 | 20 | 2.300586 | 40 | 2.335069 | 100 | 2.271009 | 200 | 2.481994 |
| o-Xylene | 2 | 2.296002 | 5 | 2.225227 | 10 | 2.338918 | 20 | 2.313981 | 50 | 2.173523 | 100 | 2.494403 |
| Vinyl acetate | 3.998 | 0.4521423 | 9.995 | 0.4534324 | 19.99 | 0.4418868 | 39.98 | 0.4271593 | 99.95 | 0.4198531 | 199.9 | 0.4560466 |
| Xylenes (total) | 6 | 2.336378 | 15 | 2.209268 | 30 | 2.313363 | 60 | 2.328039 | 150 | 2.238513 | 300 | 2.48613 |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | 10 | 2.774079E-02 | 25 | 0.0266787 | 50 | 2.668582E-02 | 100 | 2.719233E-02 | 250 | 2.468558E-02 | 500 | 2.532327E-02 |
| tert-Amyl ethyl ether | 2 | 0.8583258 | 5 | 0.850034 | 10 | 0.8687331 | 20 | 0.8675918 | 50 | 0.8495265 | 100 | 0.9293077 |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | 4 | 0.1347026 | 10 | 0.1001498 | 20 | 0.1056507 | 40 | 0.1037585 |
| Acrolein | 750.3 | 2.838079E-02 | 1000 | 2.600032E-02 | | | | | | | | |
| Acrylonitrile | 749.7 | 0.1024932 | 999.6 | 9.546004E-02 | | | | | | | | |
| Benzene | 150 | 1.192145 | 200 | 1.155082 | | | | | | | | |
| Bromobenzene | 150 | 0.7302519 | 200 | 0.7329693 | | | | | | | | |
| Bromochloromethane | 150 | 0.1491289 | 200 | 0.1443947 | | | | | | | | |
| Tert-Amyl Methyl Ether | 150 | 0.807724 | 200 | 0.7867898 | | | | | | | | |
| Bromodichloromethane | 150 | 0.3531789 | 200 | 0.3510862 | | | | | | | | |
| Bromoform | 150 | 0.4028367 | 200 | ~~0.4128355~~ | | | | | | | | |
| Bromomethane | 150 | 0.1015578 | 200 | 0.1000582 | | | | | | | | |
| Bromofluorobenzene | | | | | 30 | 0.8230123 | 40 | 0.8034236 | 50 | 0.7644337 | 60 | 0.7687512 |
| n-Butylbenzene | 150 | 2.870467 | 200 | 2.722726 | | | | | | | | |
| 2-Butanone | | | | | 4 | 0.1613574 | 10 | 0.1735417 | 20 | 0.1780046 | 40 | 0.1810548 |
| sec-Butylbenzene | 150 | 3.480445 | 200 | 3.296109 | | | | | | | | |
| tert-Butylbenzene | 150 | 2.240936 | 200 | 2.192407 | | | | | | | | |
| Carbon disulfide | 150 | 0.9301783 | 200 | 0.8994057 | | | | | | | | |
| Carbon tetrachloride | 150 | 0.3521533 | 200 | 0.338749 | | | | | | | | |
| Chlorobenzene | 150 | 2.022008 | 200 | 2.042233 | | | | | | | | |
| Chloroethane | 150 | 8.393602E-02 | 200 | 8.074598E-02 | | | | | | | | |
| Chloroform | 150 | 0.5073668 | 200 | 0.4925365 | | | | | | | | |
| 2-Chloroethyl vinyl ether | 299.2 | 0.1762279 | 399 | 0.1688767 | | | | | | | | |
| Chloromethane | 150 | 0.3887158 | 200 | 0.3704813 | | | | | | | | |
| 1-Chlorohexane | 150.3 | 2.01726 | 200.4 | 1.885388 | | | | | | | | |
| 2-Chlorotoluene | 150 | 2.239528 | 200 | 2.201793 | | | | | | | | |
| 4-Chlorotoluene | 150 | 2.466821 | 200 | 2.43551 | | | | | | | | |
| Cyclohexane | 150 | 0.7164013 | 200 | 0.6757709 | | | | | | | | |
| Dibromochloromethane | 150 | 0.6469215 | 200 | 0.6589571 | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | 150 | 0.1180717 | 200 | 0.1164974 | | | | | | | | |
| 1,2-Dibromoethane (EDB) | 150 | 0.5513408 | 200 | 0.5571805 | | | | | | | | |
| Dibromomethane | 150 | 0.1775397 | 200 | 0.1716395 | | | | | | | | |
| 1,2-Dichlorobenzene | 150 | 1.205745 | 200 | 1.236032 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | 150 | 1.326823 | 200 | 1.310985 | | | | | | | | |
| 1,4-Dichlorobenzene | 150 | 1.329174 | 200 | 1.311361 | | | | | | | | |
| Dichlorodifluoromethane | 150 | 0.294192 | 200 | 0.2759141 | | | | | | | | |
| 1,1-Dichloroethane | 150 | 0.6166086 | 200 | 0.5947691 | | | | | | | | |
| 1,2-Dichloroethane | 150 | 0.3026457 | 200 | 0.3034343 | | | | | | | | |
| 1,1-Dichloroethene | 150 | 0.1785913 | 200 | ~~0.2416956~~ | | | | | | | | |
| cis-1,2-Dichloroethene | 150 | 0.3297915 | 200 | 0.3192484 | | | | | | | | |
| trans-1,2-Dichloroethene | 150 | 0.2978576 | 200 | 0.2889025 | | | | | | | | |
| 1,2-Dichloroethene (total) | 300 | 0.3138245 | 400 | 0.3040755 | | | | | | | | |
| 1,2-Dichloropropane | 150 | 0.3778939 | 200 | 0.3725401 | | | | | | | | |
| 1,3-Dichloropropane | 150 | 0.8986319 | 200 | 0.8784469 | | | | | | | | |
| 2,2-Dichloropropane | 150 | 0.3617797 | 200 | 0.3482468 | | | | | | | | |
| 1,1-Dichloropropene | 150 | 0.4099157 | 200 | 0.3932496 | | | | | | | | |
| cis-1,3-Dichloropropene | 150 | 0.469431 | 200 | 0.4523565 | | | | | | | | |
| trans-1,3-Dichloropropene | 150 | 0.8248023 | 200 | 0.802177 | | | | | | | | |
| Diisopropyl Ether | 150 | 1.730807 | 200 | 1.694548 | | | | | | | | |
| Ethylbenzene | 150 | 3.651297 | 200 | 3.573134 | | | | | | | | |
| Ethyl tert-Butyl Ether | 150 | 1.079763 | 200 | 1.057801 | | | | | | | | |
| Ethyl Methacrylate | 150 | 0.8710207 | 200 | 0.8578263 | | | | | | | | |
| Hexachlorobutadiene | 150 | 0.4984486 | 200 | 0.5033677 | | | | | | | | |
| 2-Hexanone | | | | | 4 | 0.5968604 | 10 | 0.6295112 | 20 | 0.5805845 | 40 | 0.6497723 |
| Iodomethane | 150 | 0.3500682 | 200 | ~~0.3742377~~ | | | | | | | | |
| Isopropylbenzene | 150 | 2.784682 | 200 | 2.727285 | | | | | | | | |
| p-Isopropyltoluene | 150 | 2.44157 | 200 | 2.332893 | | | | | | | | |
| Methylene chloride | 150 | 0.309667 | 200 | 0.3027675 | | | | | | | | |
| Methyl Acetate | 150 | 0.2510632 | 200 | ~~0.223989~~ | | | | | | | | |
| Methylcyclohexane | 150 | 0.5392906 | 200 | 0.5146507 | | | | | | | | |
| Naphthalene | 150 | 1.643224 | 200 | 1.657041 | | | | | | | | |
| Methyl Methacrylate | 150 | 0.4831825 | 200 | 0.4512382 | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | 4 | 0.352703 | 10 | 0.3709348 | 20 | 0.3733009 | 40 | 0.3939664 |
| Methyl t-Butyl Ether | 150 | 0.6360249 | 200 | 0.6284265 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | 150 | 4.002939 | 200 | 3.703082 | | | | | | | | |
| Styrene | 150 | 2.111887 | 200 | 2.10262 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 150 | 0.6980061 | 200 | 0.6850432 | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 150 | 0.7068497 | 200 | 0.7111916 | | | | | | | | |
| tert-Butyl alcohol | 750 | 2.532031E-02 | 1000 | 2.506596E-02 | | | | | | | | |
| Tetrachloroethene | 150 | 0.6992434 | 200 | 0.6850495 | | | | | | | | |
| Toluene | 150 | 1.706061 | 200 | 1.604325 | | | | | | | | |
| 1,2,3-Trichlorobenzene | 150 | 0.7278232 | 200 | 0.7516194 | | | | | | | | |
| 1,2,4-Trichlorobenzene | 150 | 0.8125712 | 200 | 0.8332477 | | | | | | | | |
| 1,1,2-Trichloroethane | 150 | 0.4953458 | 200 | 0.4956092 | | | | | | | | |
| 1,1,1-Trichloroethane | 150 | 0.3669203 | 200 | 0.3572786 | | | | | | | | |
| Tetrahydrofuran | 150 | 0.1030719 | 200 | 9.688072E-02 | | | | | | | | |
| Trichloroethene | 150 | 0.3226635 | 200 | 0.3110056 | | | | | | | | |
| Trichlorofluoromethane | 150 | 0.4505598 | 200 | 0.3669905 | | | | | | | | |
| 1,2,3-Trichloropropane | 150 | 0.1471629 | 200 | 0.1448242 | | | | | | | | |
| 1,3,5-Trimethylbenzene | 150 | 2.367285 | 200 | 2.354633 | | | | | | | | |
| 1,2,4-Trimethylbenzene | 150 | 2.425007 | 200 | 2.350211 | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | 150 | 0.2343912 | 200 | 0.2778142 | | | | | | | | |
| Vinyl chloride | 150 | 0.1769872 | 200 | 0.1586922 | | | | | | | | |
| m,p-Xylene | 300 | 2.402223 | 400 | 2.220402 | | | | | | | | |
| o-Xylene | 150 | 2.704775 | 200 | 2.61654 | | | | | | | | |
| Vinyl acetate | 299.8 | 0.4630155 | 399.8 | 0.4347041 | | | | | | | | |
| Xylenes (total) | 450 | 2.503073 | 600 | 2.352449 | | | | | | | | |
| Dibromofluoromethane | | | | | 30 | 0.2954943 | 40 | 0.2974247 | 50 | 0.2871887 | 60 | 0.2881603 |
| 1,2-Dichloroethane-d4 | | | | | 30 | 5.690591E-02 | 40 | 5.565845E-02 | 50 | 5.399013E-02 | 60 | 5.358577E-02 |
| Toluene-d8 | | | | | 30 | 2.140235 | 40 | 2.122804 | 50 | 2.025309 | 60 | 2.088032 |
| tert-Amyl alcohol | 750 | 2.609744E-02 | 1000 | 2.452795E-02 | | | | | | | | |
| tert-Amyl ethyl ether | 150 | 0.9427317 | 200 | 0.9137197 | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | 100 | 6.113527E-02 | 200 | 6.789272E-02 | 300 | 7.494916E-02 | 400 | ~~5.841085E-02~~ | | | | |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | 70 | 0.7834868 | 30 | 0.8046764 | 30 | 0.8182797 | 30 | 0.7949773 | | | | |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | 100 | 0.1426145 | 200 | 0.1579733 | 300 | 0.1625784 | 400 | 0.1390088 | | | | |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | 100 | 0.5257543 | 200 | 0.5663449 | 300 | 0.5937655 | 400 | 0.5091155 | | | | |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | 100 | 0.3187762 | 200 | 0.347223 | 300 | 0.3502062 | 400 | 0.3078423 | | | | |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethar | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | 70 | 0.2942664 | 30 | 0.2949058 | 30 | 0.2928709 | 30 | 0.2896504 | | | | |
| 1,2-Dichloroethane-d4 | 70 | 5.499892E-02 | 30 | 5.289629E-02 | 30 | 5.266519E-02 | 30 | 5.167637E-02 | | | | |
| Toluene-d8 | 70 | 2.099996 | 30 | 2.097625 | 30 | 2.134783 | 30 | 2.118841 | | | | |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11_16:35 3/17/11_15:11 |

| Compound | Level 19 | | Level 20 | | Level 21 | | Level 22 | | Level 23 | | Level 24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| Acetone | | | | | | | | | | | | |
| Acrolein | | | | | | | | | | | | |
| Acrylonitrile | | | | | | | | | | | | |
| Benzene | | | | | | | | | | | | |
| Bromobenzene | | | | | | | | | | | | |
| Bromochloromethane | | | | | | | | | | | | |
| Tert-Amyl Methyl Ether | | | | | | | | | | | | |
| Bromodichloromethane | | | | | | | | | | | | |
| Bromoform | | | | | | | | | | | | |
| Bromomethane | | | | | | | | | | | | |
| Bromofluorobenzene | | | | | | | | | | | | |
| n-Butylbenzene | | | | | | | | | | | | |
| 2-Butanone | | | | | | | | | | | | |
| sec-Butylbenzene | | | | | | | | | | | | |
| tert-Butylbenzene | | | | | | | | | | | | |
| Carbon disulfide | | | | | | | | | | | | |
| Carbon tetrachloride | | | | | | | | | | | | |
| Chlorobenzene | | | | | | | | | | | | |
| Chloroethane | | | | | | | | | | | | |
| Chloroform | | | | | | | | | | | | |
| 2-Chloroethyl vinyl ether | | | | | | | | | | | | |
| Chloromethane | | | | | | | | | | | | |
| 1-Chlorohexane | | | | | | | | | | | | |
| 2-Chlorotoluene | | | | | | | | | | | | |
| 4-Chlorotoluene | | | | | | | | | | | | |
| Cyclohexane | | | | | | | | | | | | |
| Dibromochloromethane | | | | | | | | | | | | |
| 1,2-Dibromo-3-chloropropane | | | | | | | | | | | | |
| 1,2-Dibromoethane (EDB) | | | | | | | | | | | | |
| Dibromomethane | | | | | | | | | | | | |
| 1,2-Dichlorobenzene | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 19 | | Level 20 | | Level 21 | | Level 22 | | Level 23 | | Level 24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| 1,3-Dichlorobenzene | | | | | | | | | | | | |
| 1,4-Dichlorobenzene | | | | | | | | | | | | |
| Dichlorodifluoromethane | | | | | | | | | | | | |
| 1,1-Dichloroethane | | | | | | | | | | | | |
| 1,2-Dichloroethane | | | | | | | | | | | | |
| 1,1-Dichloroethene | | | | | | | | | | | | |
| cis-1,2-Dichloroethene | | | | | | | | | | | | |
| trans-1,2-Dichloroethene | | | | | | | | | | | | |
| 1,2-Dichloroethene (total) | | | | | | | | | | | | |
| 1,2-Dichloropropane | | | | | | | | | | | | |
| 1,3-Dichloropropane | | | | | | | | | | | | |
| 2,2-Dichloropropane | | | | | | | | | | | | |
| 1,1-Dichloropropene | | | | | | | | | | | | |
| cis-1,3-Dichloropropene | | | | | | | | | | | | |
| trans-1,3-Dichloropropene | | | | | | | | | | | | |
| Diisopropyl Ether | | | | | | | | | | | | |
| Ethylbenzene | | | | | | | | | | | | |
| Ethyl tert-Butyl Ether | | | | | | | | | | | | |
| Ethyl Methacrylate | | | | | | | | | | | | |
| Hexachlorobutadiene | | | | | | | | | | | | |
| 2-Hexanone | | | | | | | | | | | | |
| Iodomethane | | | | | | | | | | | | |
| Isopropylbenzene | | | | | | | | | | | | |
| p-Isopropyltoluene | | | | | | | | | | | | |
| Methylene chloride | | | | | | | | | | | | |
| Methyl Acetate | | | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | | | |
| Naphthalene | | | | | | | | | | | | |
| Methyl Methacrylate | | | | | | | | | | | | |
| 4-Methyl-2-pentanone | | | | | | | | | | | | |
| Methyl t-Butyl Ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Level 19 | | Level 20 | | Level 21 | | Level 22 | | Level 23 | | Level 24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF | ug/L | RF |
| n-Propylbenzene | | | | | | | | | | | | |
| Styrene | | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | | | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | | | | | | | | | | | | |
| tert-Butyl alcohol | | | | | | | | | | | | |
| Tetrachloroethene | | | | | | | | | | | | |
| Toluene | | | | | | | | | | | | |
| 1,2,3-Trichlorobenzene | | | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | | | | | | | | | | | | |
| 1,1,2-Trichloroethane | | | | | | | | | | | | |
| 1,1,1-Trichloroethane | | | | | | | | | | | | |
| Tetrahydrofuran | | | | | | | | | | | | |
| Trichloroethene | | | | | | | | | | | | |
| Trichlorofluoromethane | | | | | | | | | | | | |
| 1,2,3-Trichloropropane | | | | | | | | | | | | |
| 1,3,5-Trimethylbenzene | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | | | | | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethan | | | | | | | | | | | | |
| Vinyl chloride | | | | | | | | | | | | |
| m,p-Xylene | | | | | | | | | | | | |
| o-Xylene | | | | | | | | | | | | |
| Vinyl acetate | | | | | | | | | | | | |
| Xylenes (total) | | | | | | | | | | | | |
| Dibromofluoromethane | | | | | | | | | | | | |
| 1,2-Dichloroethane-d4 | | | | | | | | | | | | |
| Toluene-d8 | | | | | | | | | | | | |
| tert-Amyl alcohol | | | | | | | | | | | | |
| tert-Amyl ethyl ether | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acetone | 9.260554E-02 | 28.00847 | 3.792143 | 0.2505724 | | 0.9930411 | 0.99 | |
| Acrolein | 3.068373E-02 | 14.17936 | 3.687375 | 0.266829 | | | 15 | |
| Acrylonitrile | 8.885261E-02 | 18.29246 | 4.637625 | 0.1611173 | 0.9961602 | | 0.995 | |
| Benzene | 1.113159 | 4.608946 | 7.67675 | 4.449891E-02 | | | 15 | |
| Bromobenzene | 0.7164301 | 3.444919 | 12.40125 | 2.882236E-02 | | | 15 | |
| Bromochloromethane | 0.1470133 | 2.818947 | 6.77675 | 6.962075E-02 | | | 15 | |
| Tert-Amyl Methyl Ether | 0.7667359 | 3.84088 | 7.868625 | 0.0369654 | | | 15 | |
| Bromodichloromethane | 0.3261603 | 6.110637 | 8.6565 | 0.0395075 | | | 15 | |
| Bromoform | 0.3300278 | 14.56769 | 11.81133 | 3.114238E-02 | | | SPCC (0.1) | |
| Bromomethane | 9.416029E-02 | 13.49252 | 2.841429 | 0.3399494 | | | 15 | |
| Bromofluorobenzene | 0.7951301 | 2.708642 | 12.22875 | 0.0251581 | | | 15 | |
| n-Butylbenzene | 2.759967 | 3.753642 | 13.82862 | 1.990092E-02 | | | 15 | |
| 2-Butanone | 0.1620167 | 9.544266 | 6.227 | 6.194136E-02 | | | 15 | |
| sec-Butylbenzene | 3.285152 | 4.35073 | 13.29013 | 3.345705E-02 | | | 15 | |
| tert-Butylbenzene | 2.145432 | 3.707538 | 13.05663 | 2.013395E-02 | | | 15 | |
| Carbon disulfide | 0.7939658 | 17.02013 | 4.8035 | 0.1982975 | 0.9975385 | | 0.995 | |
| Carbon tetrachloride | 0.3144458 | 8.98804 | 7.644625 | 5.435293E-02 | | | 15 | |
| Chlorobenzene | 1.859646 | 6.752518 | 11.08463 | 2.703025E-02 | | | SPCC (0.3) | |
| Chloroethane | 8.354599E-02 | 6.438411 | 2.97925 | 0.3520969 | | | 15 | |
| Chloroform | 0.4852062 | 3.430147 | 6.7485 | 5.313365E-02 | | | CCC (20) | |
| 2-Chloroethyl vinyl ether | 0.17477 | 3.894887 | 9.0105 | 4.037457E-02 | | | 15 | |
| Chloromethane | 0.3749535 | 3.973692 | 2.239125 | 0.4681154 | | | SPCC (0.1) | |
| 1-Chlorohexane | 2.070736 | 5.11712 | 11.051 | 3.853776E-02 | | | 15 | |
| 2-Chlorotoluene | 2.109323 | 4.700997 | 12.6225 | 3.341376E-02 | | | 15 | |
| 4-Chlorotoluene | 2.329282 | 4.243641 | 12.68525 | 2.421974E-02 | | | 15 | |
| Cyclohexane | 0.685955 | 5.186082 | 7.5735 | 5.633159E-02 | | | 15 | |
| Dibromochloromethane | 0.5441809 | 14.16857 | 10.3225 | 3.125264E-02 | | | 15 | |
| 1,2-Dibromo-3-chloropropane | 0.1110578 | 4.56858 | 14.43113 | 0.0227997 | | | 15 | |
| 1,2-Dibromoethane (EDB) | 0.5250303 | 8.57485 | 10.53375 | 2.690444E-02 | | | 15 | |
| Dibromomethane | 0.172495 | 3.274856 | 8.595125 | 3.800596E-02 | | | 15 | |
| 1,2-Dichlorobenzene | 1.192622 | 3.865282 | 13.789 | 1.366507E-02 | | | 15 | |
| 1,3-Dichlorobenzene | 1.301676 | 2.74033 | 13.3795 | 3.011168E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 1.315839 | 3.393764 | 13.47213 | 2.224884E-02 | | | 15 | |
| Dichlorodifluoromethane | 0.2743014 | 10.74781 | 2.016625 | 0.5619011 | | | 15 | |
| 1,1-Dichloroethane | 0.586753 | 4.750245 | 5.793375 | 7.525912E-02 | | | SPCC (0.1) | |
| 1,2-Dichloroethane | 0.2934489 | 4.123627 | 7.505875 | 5.038248E-02 | | | 15 | |
| 1,1-Dichloroethene | 0.2034482 | 14.48541 | 4.277667 | 0.1728932 | | | CCC (20) | |
| cis-1,2-Dichloroethene | 0.3168749 | 2.657418 | 6.4965 | 8.574096E-02 | | | 15 | |
| trans-1,2-Dichloroethene | 0.283059 | 5.687211 | 5.419625 | 8.226152E-02 | | | 15 | |
| 1,2-Dichloroethene (total) | 0.2999669 | 3.809693 | 0 | 0 | | | 15 | |
| 1,2-Dichloropropane | 0.3682027 | 2.627754 | 8.4795 | 4.454179E-02 | | | CCC (20) | |
| 1,3-Dichloropropane | 0.8250139 | 6.792829 | 10.06175 | 0.0225482 | | | 15 | |
| 2,2-Dichloropropane | 0.3408366 | 5.440234 | 6.602125 | 6.320189E-02 | | | 15 | |
| 1,1-Dichloropropene | 0.386876 | 5.080917 | 7.524375 | 0.0579442 | | | 15 | |
| cis-1,3-Dichloropropene | 0.441167 | 3.859299 | 9.22575 | 3.273881E-02 | | | 15 | |
| trans-1,3-Dichloropropene | 0.7537714 | 6.572131 | 9.69775 | 2.998173E-02 | | | 15 | |
| Diisopropyl Ether | 1.648527 | 3.427531 | 6.164375 | 8.144213E-02 | | | 15 | |
| Ethylbenzene | 3.20803 | 9.080474 | 11.2305 | 3.248409E-02 | | | CCC (20) | |
| Ethyl tert-Butyl Ether | 1.014941 | 4.802987 | 6.624375 | 5.856448E-02 | | | 15 | |
| Ethyl Methacrylate | 0.8111924 | 7.03362 | 9.88475 | 3.023834E-02 | | | 15 | |
| Hexachlorobutadiene | 0.4736085 | 5.501745 | 15.78825 | 2.462656E-02 | | | 15 | |
| 2-Hexanone | 0.5814636 | 8.204247 | 9.98775 | 2.484454E-02 | | | 15 | |
| Iodomethane | 0.3021595 | 14.1237 | 4.468714 | 0.194976 | | | 15 | |
| Isopropylbenzene | 2.472317 | 8.225239 | 12.12925 | 2.846195E-02 | | | 15 | |
| p-Isopropyltoluene | 2.330942 | 4.564871 | 13.4265 | 0.02919 | | | 15 | |
| Methylene chloride | 0.3823591 | 43.34252 | 4.754375 | 0.1602236 | 0.9983757 | | 0.995 | |
| Methyl Acetate | 0.2345594 | 13.01771 | 4.628714 | 0.1631094 | | | 15 | |
| Methylcyclohexane | 0.5128412 | 4.32501 | 8.80775 | 0.0356778 | | | 15 | |
| Naphthalene | 1.602647 | 6.275391 | 15.66025 | 1.983775E-02 | | | 15 | |
| Methyl Methacrylate | 0.471708 | 2.883842 | 7.5735 | 5.633159E-02 | | | 15 | |
| 4-Methyl-2-pentanone | 0.3518691 | 8.076643 | 9.140625 | 1.978248E-02 | | | 15 | |
| Methyl t-Butyl Ether | 0.6002451 | 4.891206 | 5.423375 | 0.1227064 | | | 15 | |
| n-Propylbenzene | 3.803681 | 4.930978 | 12.5375 | 2.980661E-02 | | | 15 | |
| Styrene | 1.92732 | 6.721793 | 11.704 | 2.493567E-02 | | | 15 | |

# INITIAL CALIBRATION DATA (Continued)

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1081001 | Instrument: | MS-VOA6 |
| Matrix: | Water | Calibration Dates: | 2/8/11 16:35 3/17/11 15:11 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| 1,1,2,2-Tetrachloroethane | 0.6908364 | 4.258784 | 12.05575 | 3.119017E-02 | | | SPCC (0.3) | |
| 1,1,1,2-Tetrachloroethane | 0.6333042 | 8.281663 | 11.1275 | 3.464365E-02 | | | 15 | |
| tert-Butyl alcohol | 2.671035E-02 | 9.966665 | 4.427375 | 0.2216083 | | | 15 | |
| Tetrachloroethene | 0.6244481 | 8.506563 | 10.43312 | 3.100488E-02 | | | 15 | |
| Toluene | 1.598242 | 4.627079 | 9.70025 | 4.291451E-02 | | | CCC (20) | |
| 1,2,3-Trichlorobenzene | 0.7016011 | 4.889794 | 15.94525 | 2.154844E-02 | | | 15 | |
| 1,2,4-Trichlorobenzene | 0.7933826 | 3.727781 | 15.508 | 1.845566E-02 | | | 15 | |
| 1,1,2-Trichloroethane | 0.468124 | 6.206816 | 9.8525 | 3.322686E-02 | | | 15 | |
| 1,1,1-Trichloroethane | 0.3447116 | 5.271122 | 7.3065 | 4.409785E-02 | | | 15 | |
| Tetrahydrofuran | 0.125175 | 32.67256 | 6.962375 | 9.085995E-02 | 0.9977438 | | 0.995 | |
| Trichloroethene | 0.308656 | 4.617016 | 8.43125 | 5.007405E-02 | | | 15 | |
| Trichlorofluoromethane | 0.4287223 | 6.644425 | 3.48675 | 0.268437 | | | 15 | |
| 1,2,3-Trichloropropane | 0.141114 | 8.142237 | 12.1785 | 2.715286E-02 | | | 15 | |
| 1,3,5-Trimethylbenzene | 2.27177 | 3.75346 | 12.7145 | 2.609472E-02 | | | 15 | |
| 1,2,4-Trimethylbenzene | 2.273427 | 4.81283 | 13.08825 | 1.976355E-02 | | | 15 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2574515 | 8.290995 | 4.35 | 0.1908188 | | | 15 | |
| Vinyl chloride | 0.1888258 | 14.37893 | 2.38775 | 0.3384152 | | | CCC (20) | |
| m,p-Xylene | 2.321142 | 4.033096 | 11.34387 | 3.895987E-02 | | | 15 | |
| o-Xylene | 2.395421 | 7.925602 | 11.73375 | 4.033886E-02 | | | 15 | |
| Vinyl acetate | 0.44353 | 3.427564 | 5.86575 | 0.0758661 | | | 15 | |
| Xylenes (total) | 2.345902 | 4.444014 | 0 | 0 | | | 15 | |
| Dibromofluoromethane | 0.2924952 | 1.275439 | 6.909375 | 4.408995E-02 | | | 15 | |
| 1,2-Dichloroethane-d4 | 5.404713E-02 | 3.185261 | 7.40225 | 6.524669E-02 | | | 15 | |
| Toluene-d8 | 2.103453 | 1.736151 | 9.61275 | 2.403928E-02 | | | 15 | |
| tert-Amyl alcohol | 2.611649E-02 | 4.492563 | 7.122 | 5.407818E-02 | | | 15 | |
| tert-Amyl ethyl ether | 0.8849963 | 4.245319 | 8.745 | 4.184207E-02 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 208ICV1A.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1C08024 | Injection Date: | 02/09/11 |
| Lab Sample ID: | 1C08024-ICV1 | Injection Time: | 07:37 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Benzene | A | 100.0 | 104.0 | 1.113159 | 1.157594 | | 4.0 | 20 |
| Ethylbenzene | A | 100.0 | 104.9 | 3.20803 | 3.364976 | | 4.9 | 20 |
| Methyl t-Butyl Ether | A | 200.0 | 214.0 | 0.6002451 | 0.6421448 | | 7.0 | 20 |
| Toluene | A | 100.0 | 104.5 | 1.598242 | 1.670356 | | 4.5 | 20 |
| Xylenes (total) | A | 300.0 | 315.0 | 2.345902 | 2.462529 | | 5.0 | 20 |
| Bromofluorobenzene | A | 30.00 | 30.76 | 0.7951301 | 0.8154046 | | 2.5 | 20 |
| Dibromofluoromethane | A | 30.00 | 30.19 | 0.2924952 | 0.2943467 | | 0.6 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 32.03 | 5.404713E-02 | 5.770697E-02 | | 6.8 | 20 |
| Toluene-d8 | A | 30.00 | 30.25 | 2.103453 | 2.120858 | | 0.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | 0415TUN1.D | Injection Date: | 04/15/11 |
| Instrument ID: | MS-VOA6 | Injection Time: | 08:58 |
| Sequence: | 1D10601 | Lab Sample ID: | 1D10601-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15 - 40% of 95 | 25.9 | PASS |
| 75 | 30 - 60% of 95 | 47.3 | PASS |
| 95 | Base peak, 100% relative abundance | 100 | PASS |
| 96 | 5 - 9% of 95 | 6.63 | PASS |
| 173 | Less than 2% of 174 | 0 | PASS |
| 174 | 50 - 200% of 95 | 77.4 | PASS |
| 175 | 5 - 9% of 174 | 7.59 | PASS |
| 176 | 95 - 101% of 174 | 97.3 | PASS |
| 177 | 5 - 9% of 176 | 6.67 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-VOA6 | Calibration: | 1081001 |
| Lab File ID: | 0415CCV1.D | Calibration Date: | 02/08/11 16:35 |
| Sequence: | 1D10601 | Injection Date: | 04/15/11 |
| Lab Sample ID: | 1D10601-CCV1 | Injection Time: | 09:22 |

| | | CONC. (ug/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Benzene | A | 100.0 | 92.44 | 1.113159 | 1.029014 | | -7.6 | 20 |
| Ethylbenzene | A | 100.0 | 109.7 | 3.20803 | 3.519619 | | 9.7 | 20 |
| Methyl t-Butyl Ether | A | 100.0 | 101.5 | 0.6002451 | 0.6092116 | | 1.5 | 20 |
| Toluene | A | 100.0 | 104.2 | 1.598242 | 1.664939 | | 4.2 | 20 |
| Xylenes (total) | A | 300.0 | 327.4 | 2.345902 | 2.560825 | | 9.2 | 20 |
| Bromofluorobenzene | A | 30.00 | 35.12 | 0.7951301 | 0.9307693 | | 17.1 | 20 |
| Dibromofluoromethane | A | 30.00 | 32.12 | 0.2924952 | 0.3131836 | | 7.1 | 20 |
| 1,2-Dichloroethane-d4 | A | 30.00 | 30.68 | 5.404713E-02 | 5.528222E-02 | | 2.3 | 20 |
| Toluene-d8 | A | 30.00 | 35.08 | 2.103453 | 2.459291 | | 16.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10601 | Instrument: | MS-VOA6 |
| Calibration: | 1081001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D10601-TUN1 | 0415TUN1.D | 04/15/11 08:58 |
| Calibration Check | 1D10601-CCV1 | 0415CCV1.D | 04/15/11 09:22 |
| LCS | 1D15006-BS1 | 0415LS1.D | 04/15/11 09:57 |
| Blank | 1D15006-BLK1 | 0415BL1.D | 04/15/11 11:11 |
| 05-SS-067-0406-D | 1104165-01 | 0416501.D | 04/15/11 14:22 |
| 05-SS-067-0406 | 1104165-02 | 0416502.D | 04/15/11 14:47 |
| 05-SS-072-0406 | 1104165-03 | 0416503.D | 04/15/11 15:11 |
| 05-SS-071-0406 | 1104165-04 | 0416504.D | 04/15/11 15:36 |
| 05-SS-076-0406 | 1104165-05 | 0416505.D | 04/15/11 16:01 |
| 05-SS-075-0406 | 1104165-06 | 0416506.D | 04/15/11 16:25 |
| 05-SS-077-0406 | 1104165-07 | 0416507.D | 04/15/11 16:50 |
| 05-SS-093-0204 | 1104165-09 | 0416509.D | 04/15/11 17:14 |
| 05-SS-094-0204 | 1104165-10 | 0416510.D | 04/15/11 17:39 |
| 05-SS-091-0204-D | 1104165-11 | 0416511.D | 04/15/11 18:03 |
| 05-SS-091-0204 | 1104165-12 | 0416512.D | 04/15/11 18:28 |
| 05-SS-092-0204 | 1104165-13 | 0416513.D | 04/15/11 18:52 |

# PREPARATION BATCH SUMMARY

## SW8260B

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D15006 Batch Matrix: Solid Preparation: 5035

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-067-0406-D | 1104165-01 | 04/15/11 00:00 | 4.78 | 5.00 |
| 05-SS-067-0406 | 1104165-02 | 04/15/11 00:00 | 4.85 | 5.00 |
| 05-SS-072-0406 | 1104165-03 | 04/15/11 00:00 | 4.94 | 5.00 |
| 05-SS-071-0406 | 1104165-04 | 04/15/11 00:00 | 4.63 | 5.00 |
| 05-SS-076-0406 | 1104165-05 | 04/15/11 00:00 | 5.14 | 5.00 |
| 05-SS-075-0406 | 1104165-06 | 04/15/11 00:00 | 5.09 | 5.00 |
| 05-SS-077-0406 | 1104165-07 | 04/15/11 00:00 | 4.85 | 5.00 |
| 05-SS-093-0204 | 1104165-09 | 04/15/11 00:00 | 4.21 | 5.00 |
| 05-SS-094-0204 | 1104165-10 | 04/15/11 00:00 | 5.00 | 5.00 |
| 05-SS-091-0204-D | 1104165-11 | 04/15/11 00:00 | 5.18 | 5.00 |
| 05-SS-091-0204 | 1104165-12 | 04/15/11 00:00 | 6.21 | 5.00 |
| 05-SS-092-0204 | 1104165-13 | 04/15/11 00:00 | 5.32 | 5.00 |
| Blank | 1D15006-BLK1 | 04/15/11 00:00 | 5.00 | 5.00 |
| LCS | 1D15006-BS1 | 04/15/11 00:00 | 5.00 | 5.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D15006-BLK1 | File ID: | 0415BL1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/15/11 11:11 |
| Solids: | | Preparation: | 5035 | Dilution: | |

Batch: 1D15006 Sequence: 1D10601 Calibration: 1081001 Instrument: MS-VOA6

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | | 0.00125 | 0.00250 | 0.00500 | U |
| 100-41-4 | Ethylbenzene | | 0.000750 | 0.00250 | 0.00500 | U |
| 1634-04-4 | Methyl t-Butyl Ether | | 0.00125 | 0.00250 | 0.00500 | U |
| 108-88-3 | Toluene | | 0.000860 | 0.00250 | 0.00500 | U |
| 1330-20-7 | Xylenes (total) | | 0.00375 | 0.00750 | 0.0150 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| Bromofluorobenzene | 0.03000 | 0.03133 | 104 | 85 - 120 | |
| Dibromofluoromethane | 0.03000 | 0.03083 | 103 | 80 - 125 | |
| 1,2-Dichloroethane-d4 | 0.03000 | 0.03044 | 101 | 75 - 140 | |
| Toluene-d8 | 0.03000 | 0.03114 | 104 | 85 - 115 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D15006 | Laboratory ID: | 1D15006-BS1 |
| Preparation: | 5035 | Initial/Final: | 5 g / 5 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Benzene | 0.05000 | 0.04079 | 81.6 | 75 - 125 |
| Ethylbenzene | 0.05000 | 0.04503 | 90.1 | 75 - 125 |
| Methyl t-Butyl Ether | 0.05000 | 0.04488 | 89.8 | 55 - 150 |
| Toluene | 0.05000 | 0.04503 | 90.1 | 70 - 125 |
| Xylenes (total) | 0.1500 | 0.1409 | 93.9 | 75 - 125 |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 1D10601

SDG: CTOJM26_008
Project: NAS Pensacola CTO JM26 Saufley
Instrument: MS-VOA6
Calibration: 1081001

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10601-CCV1 )** | | | Lab File ID: 0415CCV1.D | | | Analyzed: 04/15/11 09:22 | | | |
| Fluorobenzene | 652036 | 7.945 | 1045538 | 7.941 | 62 | 50 - 200 | 0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 239099 | 11.053 | 467017 | 11.049 | 51 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 240026 | 13.443 | 451772 | 13.448 | 53 | 50 - 200 | -0.0050 | +/-0.50 | |
| **LCS (1D15006-BS1 )** | | | Lab File ID: 0415LS1.D | | | Analyzed: 04/15/11 09:57 | | | |
| Fluorobenzene | 642662 | 7.944 | 652036 | 7.945 | 99 | 50 - 200 | -0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 256268 | 11.052 | 239099 | 11.053 | 107 | 50 - 200 | -0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 248759 | 13.442 | 240026 | 13.443 | 104 | 50 - 200 | -0.0010 | +/-0.50 | |
| **Blank (1D15006-BLK1 )** | | | Lab File ID: 0415BL1.D | | | Analyzed: 04/15/11 11:11 | | | |
| Fluorobenzene | 617354 | 7.938 | 652036 | 7.945 | 95 | 50 - 200 | -0.0070 | +/-0.50 | |
| Chlorobenzene-d5 | 260556 | 11.055 | 239099 | 11.053 | 109 | 50 - 200 | 0.0020 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 241415 | 13.445 | 240026 | 13.443 | 101 | 50 - 200 | 0.0020 | +/-0.50 | |
| **05-SS-067-0406-D (1104165-01 )** | | | Lab File ID: 0416501.D | | | Analyzed: 04/15/11 14:22 | | | |
| Fluorobenzene | 615651 | 7.947 | 652036 | 7.945 | 94 | 50 - 200 | 0.0020 | +/-0.50 | |
| Chlorobenzene-d5 | 263816 | 11.055 | 239099 | 11.053 | 110 | 50 - 200 | 0.0020 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 232346 | 13.445 | 240026 | 13.443 | 97 | 50 - 200 | 0.0020 | +/-0.50 | |
| **05-SS-067-0406 (1104165-02 )** | | | Lab File ID: 0416502.D | | | Analyzed: 04/15/11 14:47 | | | |
| Fluorobenzene | 595209 | 7.954 | 652036 | 7.945 | 91 | 50 - 200 | 0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 250109 | 11.062 | 239099 | 11.053 | 105 | 50 - 200 | 0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 227880 | 13.442 | 240026 | 13.443 | 95 | 50 - 200 | -0.0010 | +/-0.50 | |
| **05-SS-072-0406 (1104165-03 )** | | | Lab File ID: 0416503.D | | | Analyzed: 04/15/11 15:11 | | | |
| Fluorobenzene | 591631 | 7.95 | 652036 | 7.945 | 91 | 50 - 200 | 0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 249627 | 11.058 | 239099 | 11.053 | 104 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 213987 | 13.448 | 240026 | 13.443 | 89 | 50 - 200 | 0.0050 | +/-0.50 | |
| **05-SS-071-0406 (1104165-04 )** | | | Lab File ID: 0416504.D | | | Analyzed: 04/15/11 15:36 | | | |
| Fluorobenzene | 594359 | 7.954 | 652036 | 7.945 | 91 | 50 - 200 | 0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 252840 | 11.062 | 239099 | 11.053 | 106 | 50 - 200 | 0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 225627 | 13.452 | 240026 | 13.443 | 94 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-076-0406 (1104165-05 )** | | | Lab File ID: 0416505.D | | | Analyzed: 04/15/11 16:01 | | | |
| Fluorobenzene | 582618 | 7.949 | 652036 | 7.945 | 89 | 50 - 200 | 0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 252198 | 11.057 | 239099 | 11.053 | 105 | 50 - 200 | 0.0040 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 220433 | 13.447 | 240026 | 13.443 | 92 | 50 - 200 | 0.0040 | +/-0.50 | |
| **05-SS-075-0406 (1104165-06 )** | | | Lab File ID: 0416506.D | | | Analyzed: 04/15/11 16:25 | | | |
| Fluorobenzene | 603370 | 7.947 | 652036 | 7.945 | 93 | 50 - 200 | 0.0020 | +/-0.50 | |
| Chlorobenzene-d5 | 256728 | 11.055 | 239099 | 11.053 | 107 | 50 - 200 | 0.0020 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 228628 | 13.445 | 240026 | 13.443 | 95 | 50 - 200 | 0.0020 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10601 | Instrument: | MS-VOA6 |
| | | Calibration: | 1081001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-077-0406 (1104165-07 )** | | | Lab File ID: 0416507.D | | | Analyzed: 04/15/11 16:50 | | | |
| Fluorobenzene | 577627 | 7.95 | 652036 | 7.945 | 89 | 50 - 200 | 0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 242571 | 11.058 | 239099 | 11.053 | 101 | 50 - 200 | 0.0050 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 211201 | 13.448 | 240026 | 13.443 | 88 | 50 - 200 | 0.0050 | +/-0.50 | |
| **05-SS-093-0204 (1104165-09 )** | | | Lab File ID: 0416509.D | | | Analyzed: 04/15/11 17:14 | | | |
| Fluorobenzene | 603971 | 7.955 | 652036 | 7.945 | 93 | 50 - 200 | 0.0100 | +/-0.50 | |
| Chlorobenzene-d5 | 257322 | 11.063 | 239099 | 11.053 | 108 | 50 - 200 | 0.0100 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 230235 | 13.452 | 240026 | 13.443 | 96 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-094-0204 (1104165-10 )** | | | Lab File ID: 0416510.D | | | Analyzed: 04/15/11 17:39 | | | |
| Fluorobenzene | 600076 | 7.953 | 652036 | 7.945 | 92 | 50 - 200 | 0.0080 | +/-0.50 | |
| Chlorobenzene-d5 | 251909 | 11.061 | 239099 | 11.053 | 105 | 50 - 200 | 0.0080 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 223387 | 13.451 | 240026 | 13.443 | 93 | 50 - 200 | 0.0080 | +/-0.50 | |
| **05-SS-091-0204-D (1104165-11 )** | | | Lab File ID: 0416511.D | | | Analyzed: 04/15/11 18:03 | | | |
| Fluorobenzene | 587688 | 7.954 | 652036 | 7.945 | 90 | 50 - 200 | 0.0090 | +/-0.50 | |
| Chlorobenzene-d5 | 246918 | 11.062 | 239099 | 11.053 | 103 | 50 - 200 | 0.0090 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 220350 | 13.452 | 240026 | 13.443 | 92 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-091-0204 (1104165-12 )** | | | Lab File ID: 0416512.D | | | Analyzed: 04/15/11 18:28 | | | |
| Fluorobenzene | 579014 | 7.948 | 652036 | 7.945 | 89 | 50 - 200 | 0.0030 | +/-0.50 | |
| Chlorobenzene-d5 | 248511 | 11.055 | 239099 | 11.053 | 104 | 50 - 200 | 0.0020 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 227782 | 13.445 | 240026 | 13.443 | 95 | 50 - 200 | 0.0020 | +/-0.50 | |
| **05-SS-092-0204 (1104165-13 )** | | | Lab File ID: 0416513.D | | | Analyzed: 04/15/11 18:52 | | | |
| Fluorobenzene | 585798 | 7.956 | 652036 | 7.945 | 90 | 50 - 200 | 0.0110 | +/-0.50 | |
| Chlorobenzene-d5 | 258222 | 11.064 | 239099 | 11.053 | 108 | 50 - 200 | 0.0110 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 229374 | 13.444 | 240026 | 13.443 | 96 | 50 - 200 | 0.0010 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8260B

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10912 | Instrument: | MS-VOA5 |
| | | Calibration: | 1110001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D10912-CCV1 )** | | | Lab File ID: 0418CC1.D | | | Analyzed: 04/18/11 08:02 | | | |
| Fluorobenzene | 1502293 | 7.915 | 1328259 | 7.92 | 113 | 50 - 200 | -0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 674432 | 11.037 | 600438 | 11.052 | 112 | 50 - 200 | -0.0150 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 586262 | 13.441 | 522137 | 13.456 | 112 | 50 - 200 | -0.0150 | +/-0.50 | |
| **LCS (1D18005-BS1 )** | | | Lab File ID: 0418LS1.D | | | Analyzed: 04/18/11 08:28 | | | |
| Fluorobenzene | 1490790 | 7.916 | 1502293 | 7.915 | 99 | 50 - 200 | 0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 651959 | 11.038 | 674432 | 11.037 | 97 | 50 - 200 | 0.0010 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 571599 | 13.442 | 586262 | 13.441 | 97 | 50 - 200 | 0.0010 | +/-0.50 | |
| **Blank (1D18005-BLK1 )** | | | Lab File ID: 0418BL1.D | | | Analyzed: 04/18/11 09:45 | | | |
| Fluorobenzene | 1487925 | 7.91 | 1502293 | 7.915 | 99 | 50 - 200 | -0.0050 | +/-0.50 | |
| Chlorobenzene-d5 | 617786 | 11.043 | 674432 | 11.037 | 92 | 50 - 200 | 0.0060 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 567602 | 13.446 | 586262 | 13.441 | 97 | 50 - 200 | 0.0050 | +/-0.50 | |
| **Trip Blank 9478 (1104165-08 )** | | | Lab File ID: 0416508.D | | | Analyzed: 04/18/11 11:25 | | | |
| Fluorobenzene | 1432199 | 7.914 | 1502293 | 7.915 | 95 | 50 - 200 | -0.0010 | +/-0.50 | |
| Chlorobenzene-d5 | 595385 | 11.037 | 674432 | 11.037 | 88 | 50 - 200 | 0.0000 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 525924 | 13.44 | 586262 | 13.441 | 90 | 50 - 200 | -0.0010 | +/-0.50 | |
| **LCS Dup (1D18005-BSD1 )** | | | Lab File ID: 0418LD1.D | | | Analyzed: 04/18/11 19:19 | | | |
| Fluorobenzene | 1317765 | 7.911 | 1502293 | 7.915 | 88 | 50 - 200 | -0.0040 | +/-0.50 | |
| Chlorobenzene-d5 | 545400 | 11.044 | 674432 | 11.037 | 81 | 50 - 200 | 0.0070 | +/-0.50 | |
| 1,4-Dichlorobenzene-d4 | 488605 | 13.447 | 586262 | 13.441 | 83 | 50 - 200 | 0.0060 | +/-0.50 | |

# Data for SW8270C (PAH) Forms

# HOLDING TIME SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-067-0406-D | 04/11/11 08:15 | 04/12/11 15:26 | 04/21/11 13:20 | 10.25 | 14.00 | 04/26/11 13:03 | 4.99 | 40.00 | |
| 05-SS-067-0406 | 04/11/11 08:15 | 04/12/11 15:26 | 04/21/11 13:20 | 10.25 | 14.00 | 04/26/11 13:29 | 5.01 | 40.00 | |
| 05-SS-072-0406 | 04/11/11 08:50 | 04/12/11 15:26 | 04/21/11 13:20 | 10.23 | 14.00 | 04/26/11 14:44 | 5.06 | 40.00 | |
| 05-SS-071-0406 | 04/11/11 09:20 | 04/12/11 15:26 | 04/21/11 13:20 | 10.21 | 14.00 | 04/26/11 15:09 | 5.08 | 40.00 | |
| 05-SS-076-0406 | 04/11/11 09:55 | 04/12/11 15:26 | 04/21/11 13:20 | 10.18 | 14.00 | 04/26/11 15:34 | 5.09 | 40.00 | |
| 05-SS-075-0406 | 04/11/11 10:20 | 04/12/11 15:26 | 04/21/11 13:20 | 10.17 | 14.00 | 04/26/11 15:59 | 5.11 | 40.00 | |
| 05-SS-077-0406 | 04/11/11 10:45 | 04/12/11 15:26 | 04/21/11 13:20 | 10.15 | 14.00 | 04/26/11 16:24 | 5.13 | 40.00 | |
| 05-SS-093-0204 | 04/11/11 12:23 | 04/12/11 15:26 | 04/21/11 13:20 | 10.08 | 14.00 | 04/26/11 13:53 | 5.02 | 40.00 | |
| 05-SS-094-0204 | 04/11/11 12:40 | 04/12/11 15:26 | 04/21/11 13:20 | 10.07 | 14.00 | 04/26/11 16:49 | 5.15 | 40.00 | |
| 05-SS-091-0204-D | 04/11/11 12:55 | 04/12/11 15:26 | 04/21/11 13:20 | 10.06 | 14.00 | 04/26/11 17:39 | 5.18 | 40.00 | |
| 05-SS-091-0204 | 04/11/11 12:55 | 04/12/11 15:26 | 04/21/11 13:20 | 10.06 | 14.00 | 04/26/11 17:14 | 5.16 | 40.00 | |
| 05-SS-092-0204 | 04/11/11 13:20 | 04/12/11 15:26 | 04/21/11 13:20 | 10.04 | 14.00 | 04/26/11 14:18 | 5.04 | 40.00 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11709 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11709-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/26/11 09:58 | | |
| 2-Fluorobiphenyl | 5.000 | 92.3 | 80 - 120 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 96.5 | 80 - 120 | 11.651 | 11.651 | 0.0000 | +/-0.500 | |
| **LCS (1D20027-BS1 ) mg/Kg wet** | | | | Lab File ID: D20027L1.D | | Analyzed: 04/26/11 10:33 | | |
| 2-Fluorobiphenyl | 3.333 | 77.2 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 88.2 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |
| **LCS Dup (1D20027-BSD1 ) mg/Kg wet** | | | | Lab File ID: D20027L2.D | | Analyzed: 04/26/11 10:58 | | |
| 2-Fluorobiphenyl | 3.333 | 76.1 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 86.6 | 14 - 129 | 11.66 | 11.651 | 0.0090 | +/-0.500 | |
| **Blank (1D20027-BLK1 ) mg/Kg wet** | | | | Lab File ID: D20027B1.D | | Analyzed: 04/26/11 11:23 | | |
| 2-Fluorobiphenyl | 3.333 | 73.5 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.333 | 78.1 | 14 - 129 | 11.66 | 11.651 | 0.0090 | +/-0.500 | |
| **05-SS-067-0406-D (1104165-01 ) mg/Kg dry** | | | | Lab File ID: 0416501.D | | Analyzed: 04/26/11 13:03 | | |
| 2-Fluorobiphenyl | 3.610 | 77.8 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.610 | 95.1 | 14 - 129 | 11.66 | 11.651 | 0.0090 | +/-0.500 | |
| **05-SS-067-0406 (1104165-02 ) mg/Kg dry** | | | | Lab File ID: 0416502.D | | Analyzed: 04/26/11 13:29 | | |
| 2-Fluorobiphenyl | 3.605 | 81.3 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.605 | 87.6 | 14 - 129 | 11.66 | 11.651 | 0.0090 | +/-0.500 | |
| **05-SS-093-0204 (1104165-09 ) mg/Kg dry** | | | | Lab File ID: 0416509.D | | Analyzed: 04/26/11 13:53 | | |
| 2-Fluorobiphenyl | 3.461 | 83.6 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.461 | 97.7 | 14 - 129 | 11.66 | 11.651 | 0.0090 | +/-0.500 | |
| **05-SS-092-0204 (1104165-13 ) mg/Kg dry** | | | | Lab File ID: 0416513.D | | Analyzed: 04/26/11 14:18 | | |
| 2-Fluorobiphenyl | 3.541 | 83.7 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.541 | 97.9 | 14 - 129 | 11.66 | 11.651 | 0.0090 | +/-0.500 | |
| **05-SS-072-0406 (1104165-03 ) mg/Kg dry** | | | | Lab File ID: 0416503.D | | Analyzed: 04/26/11 14:44 | | |
| 2-Fluorobiphenyl | 3.618 | 82.0 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.618 | 96.6 | 14 - 129 | 11.66 | 11.651 | 0.0090 | +/-0.500 | |
| **05-SS-071-0406 (1104165-04 ) mg/Kg dry** | | | | Lab File ID: 0416504.D | | Analyzed: 04/26/11 15:09 | | |
| 2-Fluorobiphenyl | 3.860 | 80.3 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.860 | 97.6 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |
| **05-SS-076-0406 (1104165-05 ) mg/Kg dry** | | | | Lab File ID: 0416505.D | | Analyzed: 04/26/11 15:34 | | |
| 2-Fluorobiphenyl | 3.446 | 84.6 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.446 | 101 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11709 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-075-0406 (1104165-06 ) mg/Kg dry** | | | | Lab File ID: 0416506.D | | Analyzed: 04/26/11 15:59 | | |
| 2-Fluorobiphenyl | 3.883 | 81.4 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.883 | 102 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |
| **05-SS-077-0406 (1104165-07 ) mg/Kg dry** | | | | Lab File ID: 0416507.D | | Analyzed: 04/26/11 16:24 | | |
| 2-Fluorobiphenyl | 3.537 | 80.1 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.537 | 97.4 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |
| **05-SS-094-0204 (1104165-10 ) mg/Kg dry** | | | | Lab File ID: 0416510.D | | Analyzed: 04/26/11 16:49 | | |
| 2-Fluorobiphenyl | 3.344 | 84.2 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.344 | 103 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |
| **05-SS-091-0204 (1104165-12 ) mg/Kg dry** | | | | Lab File ID: 0416512.D | | Analyzed: 04/26/11 17:14 | | |
| 2-Fluorobiphenyl | 3.637 | 77.7 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.637 | 91.9 | 14 - 129 | 11.66 | 11.651 | 0.0090 | +/-0.500 | |
| **05-SS-091-0204-D (1104165-11 ) mg/Kg dry** | | | | Lab File ID: 0416511.D | | Analyzed: 04/26/11 17:39 | | |
| 2-Fluorobiphenyl | 3.808 | 83.6 | 14 - 129 | 7.086 | 7.086 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3.808 | 97.8 | 14 - 129 | 11.669 | 11.651 | 0.0180 | +/-0.500 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11106 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11106-TUN1 | SEQ-TUN2.D | 04/19/11 14:38 |
| Cal Standard | 1D11106-CAL1 | SEQ-CAL1.D | 04/19/11 14:56 |
| Cal Standard | 1D11106-CAL2 | SEQ-CAL2.D | 04/19/11 15:22 |
| Cal Standard | 1D11106-CAL3 | SEQ-CAL3.D | 04/19/11 15:49 |
| Cal Standard | 1D11106-CAL4 | SEQ-CAL4.D | 04/19/11 16:15 |
| Cal Standard | 1D11106-CAL5 | SEQ-CAL5.D | 04/19/11 16:41 |
| Cal Standard | 1D11106-CAL6 | SEQ-CAL6.D | 04/19/11 17:07 |
| Cal Standard | 1D11106-CAL7 | SEQ-CAL7.D | 04/19/11 17:33 |
| Cal Standard | 1D11106-CAL8 | SEQ-CAL8.D | 04/19/11 18:00 |
| Cal Standard | 1D11106-CAL9 | SEQ-CAL9.D | 04/19/11 18:26 |
| Initial Cal Check | 1D11106-ICV1 | SEQ-ICV1.D | 04/19/11 18:52 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/19/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 14:38 |
| Sequence: | 1D11106 | Lab Sample ID: | 1D11106-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 55.9 | PASS |
| 68 | Less than 2% of 69 | 1.42 | PASS |
| 69 | Less than 200% of 198 | 55.6 | PASS |
| 70 | Less than 2% of 69 | 0.506 | PASS |
| 127 | 40 - 60% of 198 | 58.8 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.61 | PASS |
| 275 | 10 - 30% of 198 | 25.1 | PASS |
| 365 | 1 - 200% of 198 | 3.39 | PASS |
| 441 | 0.001 - 100% of 443 | 81.4 | PASS |
| 442 | 40 - 200% of 198 | 116 | PASS |
| 443 | 17 - 23% of 442 | 20 | PASS |

# INITIAL CALIBRATION DATA

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11_14:56 4/19/11_18:26 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 0.1 | 0.9073685 | 0.2 | 0.8472282 | 0.5 | 0.8071579 | 1 | 0.8498111 | 5 | 0.7983861 | 10 | 0.8336235 |
| Acenaphthylene | 0.1 | 1.270537 | 0.2 | 1.269796 | 0.5 | 1.203545 | 1 | 1.329895 | 5 | 1.244934 | 10 | 1.26954 |
| Anthracene | 0.1 | 1.316798 | 0.2 | 1.168288 | 0.5 | 1.110749 | 1 | 1.196516 | 5 | 1.142564 | 10 | 1.145289 |
| Benzo(a)anthracene | 0.1 | 0.7733584 | 0.2 | 0.7987414 | 0.5 | 0.7936948 | 1 | 0.7615763 | 5 | 0.7571927 | 10 | 0.7128554 |
| Benzo(a)pyrene | 0.1 | 1.011587 | 0.2 | 1.030946 | 0.5 | 1.017569 | 1 | 1.060213 | 5 | 1.0839 | 10 | 1.070646 |
| Benzo(b)fluoranthene | 0.1 | 1.069402 | 0.2 | 1.059034 | 0.5 | 1.373963 | 1 | 1.372638 | 5 | 1.430587 | 10 | 1.441237 |
| Benzo(g,h,i)perylene | 0.1 | 0.9408315 | 0.2 | 0.8405568 | 0.5 | 0.7976318 | 1 | 0.8148168 | 5 | 0.864219 | 10 | 0.8665815 |
| Benzo(k)fluoranthene | 0.1 | 1.267422 | 0.2 | 1.346846 | 0.5 | 1.26362 | 1 | 1.415845 | 5 | 1.392767 | 10 | 1.383433 |
| Chrysene | 0.1 | 0.7544808 | 0.2 | 0.8034506 | 0.5 | 0.8045734 | 1 | 0.7738445 | 5 | 0.7358241 | 10 | 0.6923619 |
| Dibenz(a,h)anthracene | 0.1 | 0.9496165 | 0.2 | 0.7466783 | 0.5 | 0.7402214 | 1 | 0.6805862 | 5 | 0.796443 | 10 | 0.7934616 |
| Fluoranthene | 0.1 | 1.157548 | 0.2 | 1.062454 | 0.5 | 1.095169 | 1 | 1.124283 | 5 | 1.105329 | 10 | 1.104339 |
| Fluorene | 0.1 | 0.8064115 | 0.2 | 0.7540568 | 0.5 | 0.8063694 | 1 | 0.856421 | 5 | 0.815093 | 10 | 0.8250326 |
| 2-Fluorobiphenyl | 0.1 | 0.9111025 | 0.2 | 0.8179966 | 0.5 | 0.8596231 | 1 | 0.9163567 | 5 | 0.8693337 | 10 | 0.9032449 |
| Indeno(1,2,3-cd)pyrene | 0.1 | 1.093383 | 0.2 | 0.9068841 | 0.5 | 0.9403396 | 1 | 0.8500651 | 5 | 0.988829 | 10 | 1.00136 |
| 1-Methylnaphthalene | 0.1 | 0.9055015 | 0.2 | 0.8433563 | 0.5 | 0.8234392 | 1 | 0.8924473 | 5 | 0.8141195 | 10 | 0.8432931 |
| 2-Methylnaphthalene | 0.1 | 0.8922941 | 0.2 | 0.8542047 | 0.5 | 0.8425825 | 1 | 0.9153548 | 5 | 0.8238603 | 10 | 0.8462289 |
| Naphthalene | 0.1 | 1.349228 | 0.2 | 1.335829 | 0.5 | 1.292384 | 1 | 1.372084 | 5 | 1.289524 | 10 | 1.314208 |
| Phenanthrene | 0.1 | 1.168128 | 0.2 | 1.160509 | 0.5 | 1.123307 | 1 | 1.207249 | 5 | 1.149711 | 10 | 1.147939 |
| Pyrene | 0.1 | 1.125118 | 0.2 | 1.087779 | 0.5 | 1.101083 | 1 | 1.132428 | 5 | 1.126722 | 10 | 1.105628 |
| Terphenyl-d14 | 0.1 | 0.6677684 | 0.2 | 0.7013144 | 0.5 | 0.7095286 | 1 | 0.6890768 | 5 | 0.6935843 | 10 | 0.6867195 |
| 2,4,6-Tribromophenol | 0.2 | ~~9.5770876-02~~ | 0.4 | ~~0.1047175~~ | 1 | 0.1132755 | 2 | 0.1399245 | 10 | 0.1621875 | 20 | 0.1721881 |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11 14:56 4/19/11 18:26 |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF | ug/mL | RF |
| Acenaphthene | 20 | 0.7940618 | 40 | 0.7352884 | 50 | 0.7827219 | | | | | | |
| Acenaphthylene | 20 | 1.141889 | 40 | 1.048448 | 50 | 1.091477 | | | | | | |
| Anthracene | 20 | 1.117011 | 40 | 1.128844 | 50 | 1.128459 | | | | | | |
| Benzo(a)anthracene | 20 | 0.7657045 | 40 | 0.891703 | 50 | 0.7603992 | | | | | | |
| Benzo(a)pyrene | 20 | 1.100458 | 40 | 1.064936 | 50 | 1.103355 | | | | | | |
| Benzo(b)fluoranthene | 20 | 1.537608 | 40 | 1.633929 | 50 | 1.471212 | | | | | | |
| Benzo(g,h,i)perylene | 20 | 0.8566147 | 40 | 0.7527658 | 50 | 0.8332651 | | | | | | |
| Benzo(k)fluoranthene | 20 | 1.354037 | 40 | 1.250454 | 50 | 1.26906 | | | | | | |
| Chrysene | 20 | 0.6823315 | 40 | 0.8250514 | 50 | 0.6874646 | | | | | | |
| Dibenz(a,h)anthracene | 20 | 0.8197604 | 40 | 0.7276827 | 50 | 0.8426935 | | | | | | |
| Fluoranthene | 20 | 1.100363 | 40 | 1.116813 | 50 | 1.129477 | | | | | | |
| Fluorene | 20 | 0.8177829 | 40 | 0.7918825 | 50 | 0.7874121 | | | | | | |
| 2-Fluorobiphenyl | 20 | 0.8244022 | 40 | 0.7671239 | 50 | 0.8084073 | | | | | | |
| Indeno(1,2,3-cd)pyrene | 20 | 1.000876 | 40 | 0.9043518 | 50 | 1.038719 | | | | | | |
| 1-Methylnaphthalene | 20 | 0.7692007 | 40 | 0.7167983 | 50 | 0.7352023 | | | | | | |
| 2-Methylnaphthalene | 20 | 0.7931505 | 40 | 0.7308007 | 50 | 0.7831935 | | | | | | |
| Naphthalene | 20 | 1.210287 | 40 | 1.118559 | 50 | 1.125103 | | | | | | |
| Phenanthrene | 20 | 1.129587 | 40 | 1.117307 | 50 | 1.135743 | | | | | | |
| Pyrene | 20 | 1.104729 | 40 | 1.163501 | 50 | 1.105306 | | | | | | |
| Terphenyl-d14 | 20 | 0.7217151 | 40 | 0.7460979 | 50 | 0.6818047 | | | | | | |
| 2,4,6-Tribromophenol | 40 | 0.1625257 | 80 | 0.1663055 | 100 | 0.1695583 | | | | | | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11_14:56 4/19/11_18:26 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8172941 | 6.002518 | 7.944333 | 0.1047021 | | | CCC (30) | |
| Acenaphthylene | 1.207785 | 7.808994 | 7.734889 | 0.1182522 | | | 15 | |
| Anthracene | 1.161613 | 5.505861 | 9.805778 | 0.100823 | | | 15 | |
| Benzo(a)anthracene | 0.7794695 | 6.254565 | 12.93533 | 6.502969E-02 | | | 15 | |
| Benzo(a)pyrene | 1.060401 | 3.200109 | 14.769 | 4.143849E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.376623 | 14.1471 | 14.326 | 7.995191E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.8408092 | 6.210629 | 16.70156 | 7.861425E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.327054 | 4.862521 | 14.36322 | 0.079314 | | | 15 | |
| Chrysene | 0.7510425 | 7.301878 | 12.98111 | 7.297783E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.7885715 | 9.963425 | 16.36178 | 4.777576E-02 | | | 15 | |
| Fluoranthene | 1.110642 | 2.363902 | 11.19311 | 0.0831072 | | | CCC (30) | |
| Fluorene | 0.806718 | 3.496377 | 8.576445 | 9.781169E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8530656 | 6.095572 | 7.112 | 8.858856E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 0.9694231 | 7.8043 | 16.34633 | 6.789173E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8159287 | 7.985947 | 6.773 | 9.488666E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8312967 | 6.802917 | 6.660333 | 0.1047284 | | | 15 | |
| Naphthalene | 1.267467 | 7.448697 | 5.839111 | 9.533926E-02 | | | 15 | |
| Phenanthrene | 1.148831 | 2.40557 | 9.740667 | 0.1040327 | | | 15 | |
| Pyrene | 1.116922 | 2.023077 | 11.46378 | 7.377866E-02 | | | 15 | |
| Terphenyl-d14 | 0.6997344 | 3.349731 | 11.68256 | 6.766915E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1551379 | 13.70301 | 8.878286 | 0.1225255 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11106 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11106-ICV1 | Injection Time: | 18:52 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.145 | 0.8172941 | 0.8409406 | | 2.9 | 20 |
| Acenaphthylene | A | 5.000 | 5.694 | 1.207785 | 1.375521 | | 13.9 | 20 |
| Anthracene | A | 5.000 | 5.601 | 1.161613 | 1.301226 | | 12.0 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.940 | 0.7794695 | 0.7701215 | | -1.2 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.489 | 1.060401 | 1.16413 | | 9.8 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.261 | 1.376623 | 1.448551 | | 5.2 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.469 | 0.8408092 | 0.9196673 | | 9.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.499 | 1.327054 | 1.459622 | | 10.0 | 20 |
| Chrysene | A | 5.000 | 5.270 | 0.7510425 | 0.7915565 | | 5.4 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.291 | 0.7885715 | 0.8344072 | | 5.8 | 20 |
| Fluoranthene | A | 5.000 | 5.358 | 1.110642 | 1.190233 | | 7.2 | 20 |
| Fluorene | A | 5.000 | 5.368 | 0.806718 | 0.866153 | | 7.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.582 | 0.9694231 | 1.082169 | | 11.6 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.107 | 0.8159287 | 0.8334349 | | 2.1 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.373 | 0.8312967 | 0.8933577 | | 7.5 | 20 |
| Naphthalene | A | 5.000 | 5.542 | 1.267467 | 1.404988 | | 10.9 | 20 |
| Phenanthrene | A | 5.000 | 5.465 | 1.148831 | 1.255674 | | 9.3 | 20 |
| Pyrene | A | 5.000 | 5.443 | 1.116922 | 1.21582 | | 8.9 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.807 | 0.8530656 | 0.9907614 | | 16.1 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.562 | 0.6997344 | 0.7783563 | | 11.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11709 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11709-TUN1 | SEQ-TUN1.D | 04/26/11 09:40 |
| Calibration Check | 1D11709-CCV1 | SEQ-CCV1.D | 04/26/11 09:58 |
| LCS | 1D20027-BS1 | D20027L1.D | 04/26/11 10:33 |
| LCS Dup | 1D20027-BSD1 | D20027L2.D | 04/26/11 10:58 |
| Blank | 1D20027-BLK1 | D20027B1.D | 04/26/11 11:23 |
| 05-SS-067-0406-D | 1104165-01 | 0416501.D | 04/26/11 13:03 |
| 05-SS-067-0406 | 1104165-02 | 0416502.D | 04/26/11 13:29 |
| 05-SS-093-0204 | 1104165-09 | 0416509.D | 04/26/11 13:53 |
| 05-SS-092-0204 | 1104165-13 | 0416513.D | 04/26/11 14:18 |
| 05-SS-072-0406 | 1104165-03 | 0416503.D | 04/26/11 14:44 |
| 05-SS-071-0406 | 1104165-04 | 0416504.D | 04/26/11 15:09 |
| 05-SS-076-0406 | 1104165-05 | 0416505.D | 04/26/11 15:34 |
| 05-SS-075-0406 | 1104165-06 | 0416506.D | 04/26/11 15:59 |
| 05-SS-077-0406 | 1104165-07 | 0416507.D | 04/26/11 16:24 |
| 05-SS-094-0204 | 1104165-10 | 0416510.D | 04/26/11 16:49 |
| 05-SS-091-0204 | 1104165-12 | 0416512.D | 04/26/11 17:14 |
| 05-SS-091-0204-D | 1104165-11 | 0416511.D | 04/26/11 17:39 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/26/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 09:40 |
| Sequence: | 1D11709 | Lab Sample ID: | 1D11709-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.6 | PASS |
| 68 | Less than 2% of 69 | 1.67 | PASS |
| 69 | Less than 200% of 198 | 50.9 | PASS |
| 70 | Less than 2% of 69 | 0.551 | PASS |
| 127 | 40 - 60% of 198 | 55.4 | PASS |
| 197 | Less than 1% of 198 | 0.524 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.63 | PASS |
| 275 | 10 - 30% of 198 | 29 | PASS |
| 365 | 1 - 200% of 198 | 4.48 | PASS |
| 441 | 0.001 - 100% of 443 | 83.2 | PASS |
| 442 | 40 - 200% of 198 | 167 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1D11709 | Injection Date: | 04/26/11 |
| Lab Sample ID: | 1D11709-CCV1 | Injection Time: | 09:58 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.511 | 0.8172941 | 0.7373019 | | -9.8 | 20 |
| Acenaphthylene | A | 5.000 | 4.894 | 1.207785 | 1.182093 | | -2.1 | 20 |
| Anthracene | A | 5.000 | 5.059 | 1.161613 | 1.17528 | | 1.2 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.023 | 0.7794695 | 0.7831008 | | 0.5 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.682 | 1.060401 | 0.9928649 | | -6.4 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.259 | 1.376623 | 1.172701 | | -14.8 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.372 | 0.8408092 | 0.735179 | | -12.6 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.884 | 1.327054 | 1.296285 | | -2.3 | 20 |
| Chrysene | A | 5.000 | 5.142 | 0.7510425 | 0.7724016 | | 2.8 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.110 | 0.7885715 | 0.6482319 | | -17.8 | 20 |
| Fluoranthene | A | 5.000 | 5.004 | 1.110642 | 1.111578 | | 0.08 | 20 |
| Fluorene | A | 5.000 | 4.755 | 0.806718 | 0.7672523 | | -4.9 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.312 | 0.9694231 | 0.8361335 | | -13.7 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.581 | 0.8159287 | 0.7476352 | | -8.4 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.823 | 0.8312967 | 0.8019372 | | -3.5 | 20 |
| Naphthalene | A | 5.000 | 4.692 | 1.267467 | 1.189496 | | -6.2 | 20 |
| Phenanthrene | A | 5.000 | 4.951 | 1.148831 | 1.13752 | | -1.0 | 20 |
| Pyrene | A | 5.000 | 5.157 | 1.116922 | 1.152054 | | 3.1 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.613 | 0.8530656 | 0.7870448 | | -7.7 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.824 | 0.6997344 | 0.6750965 | | -3.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D20027 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-067-0406-D | 1104165-01 | 04/21/11 13:20 | 15.50 | 1.00 |
| 05-SS-067-0406 | 1104165-02 | 04/21/11 13:20 | 15.30 | 1.00 |
| 05-SS-072-0406 | 1104165-03 | 04/21/11 13:20 | 15.90 | 1.00 |
| 05-SS-071-0406 | 1104165-04 | 04/21/11 13:20 | 15.60 | 1.00 |
| 05-SS-076-0406 | 1104165-05 | 04/21/11 13:20 | 15.70 | 1.00 |
| 05-SS-075-0406 | 1104165-06 | 04/21/11 13:20 | 15.60 | 1.00 |
| 05-SS-077-0406 | 1104165-07 | 04/21/11 13:20 | 15.10 | 1.00 |
| 05-SS-093-0204 | 1104165-09 | 04/21/11 13:20 | 15.30 | 1.00 |
| 05-SS-094-0204 | 1104165-10 | 04/21/11 13:20 | 15.80 | 1.00 |
| 05-SS-091-0204-D | 1104165-11 | 04/21/11 13:20 | 15.40 | 1.00 |
| 05-SS-091-0204 | 1104165-12 | 04/21/11 13:20 | 15.50 | 1.00 |
| 05-SS-092-0204 | 1104165-13 | 04/21/11 13:20 | 15.50 | 1.00 |
| Blank | 1D20027-BLK1 | 04/21/11 13:20 | 15.00 | 1.00 |
| LCS | 1D20027-BS1 | 04/21/11 13:20 | 15.00 | 1.00 |
| LCS Dup | 1D20027-BSD1 | 04/21/11 13:20 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D20027-BLK1 | File ID: | D20027B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/26/11 11:23 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D20027 Sequence: 1D11709 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.449 | 73.5 | 14 - 129 | |
| Terphenyl-d14 | 3.333 | 2.604 | 78.1 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D20027 | Laboratory ID: | 1D20027-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.05385 | 80.8 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.05108 | 76.6 | 23 - 126 |
| Anthracene | 0.06667 | 0.05555 | 83.3 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.06107 | 91.6 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.05663 | 84.9 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.05257 | 78.9 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.06207 | 93.1 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.06221 | 93.3 | 42 - 129 |
| Chrysene | 0.06667 | 0.06386 | 95.8 | 39 - 134 |
| Dibenz(a,h)anthracene | 0.06667 | 0.05587 | 83.8 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.05879 | 88.2 | 30 - 142 |
| Fluorene | 0.06667 | 0.05682 | 85.2 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.05777 | 86.7 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.05021 | 75.3 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.05334 | 80.0 | 30 - 111 |
| Naphthalene | 0.06667 | 0.05301 | 79.5 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.05840 | 87.6 | 32 - 127 |
| Pyrene | 0.06667 | 0.05966 | 89.5 | 28 - 130 |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCSD CONCENTRATION (mg/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 0.06667 | 0.05274 | 79.1 | 2.08 | 30 | 28 - 110 |
| Acenaphthylene | 0.06667 | 0.05025 | 75.4 | 1.63 | 30 | 23 - 126 |
| Anthracene | 0.06667 | 0.05513 | 82.7 | 0.746 | 30 | 28 - 136 |
| Benzo(a)anthracene | 0.06667 | 0.05457 | 81.9 | 11.3 | 30 | 31 - 146 |
| Benzo(a)pyrene | 0.06667 | 0.05188 | 77.8 | 8.75 | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 0.06667 | 0.04809 | 72.1 | 8.91 | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 0.06667 | 0.05593 | 83.9 | 10.4 | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 0.06667 | 0.05536 | 83.0 | 11.7 | 30 | 42 - 129 |
| Chrysene | 0.06667 | 0.06149 | 92.2 | 3.77 | 30 | 39 - 134 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D20027 | Laboratory ID: | 1D20027-BSD1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCSD CONCENTRATION (mg/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 0.06667 | 0.04946 | 74.2 | 12.2 | 30 | 30 - 138 |
| Fluoranthene | 0.06667 | 0.05588 | 83.8 | 5.07 | 30 | 30 - 142 |
| Fluorene | 0.06667 | 0.05407 | 81.1 | 4.97 | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 0.06667 | 0.05312 | 79.7 | 8.39 | 30 | 17 - 164 |
| 1-Methylnaphthalene | 0.06667 | 0.04923 | 73.9 | 1.96 | 30 | 30 - 111 |
| 2-Methylnaphthalene | 0.06667 | 0.05131 | 77.0 | 3.87 | 30 | 30 - 111 |
| Naphthalene | 0.06667 | 0.05331 | 80.0 | 0.576 | 30 | 29 - 106 |
| Phenanthrene | 0.06667 | 0.05533 | 83.0 | 5.40 | 30 | 32 - 127 |
| Pyrene | 0.06667 | 0.05635 | 84.5 | 5.71 | 30 | 28 - 130 |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11709 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11709-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/26/11 09:58 | | | |
| Phenanthrene-d10 | 143711 | 9.68 | 138732 | 9.706 | 104 | 50 - 200 | -0.0260 | +/-0.50 | |
| Perylene-d12 | 82970 | 14.802 | 75266 | 14.837 | 110 | 50 - 200 | -0.0350 | +/-0.50 | |
| **LCS (1D20027-BS1 )** | | | Lab File ID: D20027L1.D | | | Analyzed: 04/26/11 10:33 | | | |
| Phenanthrene-d10 | 139990 | 9.68 | 143711 | 9.68 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 83202 | 14.812 | 82970 | 14.802 | 100 | 50 - 200 | 0.0100 | +/-0.50 | |
| **LCS Dup (1D20027-BSD1 )** | | | Lab File ID: D20027L2.D | | | Analyzed: 04/26/11 10:58 | | | |
| Phenanthrene-d10 | 141078 | 9.68 | 143711 | 9.68 | 98 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 80572 | 14.802 | 82970 | 14.802 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1D20027-BLK1 )** | | | Lab File ID: D20027B1.D | | | Analyzed: 04/26/11 11:23 | | | |
| Phenanthrene-d10 | 136356 | 9.68 | 143711 | 9.68 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 53704 | 14.812 | 82970 | 14.802 | 65 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-067-0406-D (1104165-01 )** | | | Lab File ID: 0416501.D | | | Analyzed: 04/26/11 13:03 | | | |
| Phenanthrene-d10 | 120903 | 9.68 | 143711 | 9.68 | 84 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 67086 | 14.812 | 82970 | 14.802 | 81 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-067-0406 (1104165-02 )** | | | Lab File ID: 0416502.D | | | Analyzed: 04/26/11 13:29 | | | |
| Phenanthrene-d10 | 127134 | 9.68 | 143711 | 9.68 | 88 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 55163 | 14.812 | 82970 | 14.802 | 66 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-093-0204 (1104165-09 )** | | | Lab File ID: 0416509.D | | | Analyzed: 04/26/11 13:53 | | | |
| Phenanthrene-d10 | 114457 | 9.68 | 143711 | 9.68 | 80 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 57991 | 14.812 | 82970 | 14.802 | 70 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-092-0204 (1104165-13 )** | | | Lab File ID: 0416513.D | | | Analyzed: 04/26/11 14:18 | | | |
| Phenanthrene-d10 | 123527 | 9.68 | 143711 | 9.68 | 86 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 66163 | 14.812 | 82970 | 14.802 | 80 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-072-0406 (1104165-03 )** | | | Lab File ID: 0416503.D | | | Analyzed: 04/26/11 14:44 | | | |
| Phenanthrene-d10 | 113375 | 9.68 | 143711 | 9.68 | 79 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 65512 | 14.812 | 82970 | 14.802 | 79 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-071-0406 (1104165-04 )** | | | Lab File ID: 0416504.D | | | Analyzed: 04/26/11 15:09 | | | |
| Phenanthrene-d10 | 129668 | 9.68 | 143711 | 9.68 | 90 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 71789 | 14.812 | 82970 | 14.802 | 87 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-076-0406 (1104165-05 )** | | | Lab File ID: 0416505.D | | | Analyzed: 04/26/11 15:34 | | | |
| Phenanthrene-d10 | 138161 | 9.68 | 143711 | 9.68 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 71868 | 14.812 | 82970 | 14.802 | 87 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-075-0406 (1104165-06 )** | | | Lab File ID: 0416506.D | | | Analyzed: 04/26/11 15:59 | | | |
| Phenanthrene-d10 | 124044 | 9.68 | 143711 | 9.68 | 86 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 74398 | 14.802 | 82970 | 14.802 | 90 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11709 | Instrument: | MS-BNA4 |
| | | Calibration: | 1112002 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-077-0406 (1104165-07 )** | | | Lab File ID: 0416507.D | | | Analyzed: 04/26/11 16:24 | | | |
| Phenanthrene-d10 | 136870 | 9.68 | 143711 | 9.68 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 74425 | 14.812 | 82970 | 14.802 | 90 | 50 - 200 | 0.0100 | +/-0.50 | |
| **05-SS-094-0204 (1104165-10 )** | | | Lab File ID: 0416510.D | | | Analyzed: 04/26/11 16:49 | | | |
| Phenanthrene-d10 | 131285 | 9.68 | 143711 | 9.68 | 91 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 69624 | 14.811 | 82970 | 14.802 | 84 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-091-0204 (1104165-12 )** | | | Lab File ID: 0416512.D | | | Analyzed: 04/26/11 17:14 | | | |
| Phenanthrene-d10 | 120755 | 9.68 | 143711 | 9.68 | 84 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 62364 | 14.811 | 82970 | 14.802 | 75 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-091-0204-D (1104165-11 )** | | | Lab File ID: 0416511.D | | | Analyzed: 04/26/11 17:39 | | | |
| Phenanthrene-d10 | 133105 | 9.68 | 143711 | 9.68 | 93 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 66295 | 14.812 | 82970 | 14.802 | 80 | 50 - 200 | 0.0100 | +/-0.50 | |

# Data for FLPRO Forms

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-067-0406-D | 04/11/11 08:15 | 04/12/11 15:26 | 04/19/11 10:15 | 8.13 | 14.00 | 04/20/11 17:43 | 1.31 | 40.00 | |
| 05-SS-067-0406 | 04/11/11 08:15 | 04/12/11 15:26 | 04/19/11 10:15 | 8.13 | 14.00 | 04/20/11 18:26 | 1.34 | 40.00 | |
| 05-SS-072-0406 | 04/11/11 08:50 | 04/12/11 15:26 | 04/19/11 10:15 | 8.10 | 14.00 | 04/20/11 19:08 | 1.37 | 40.00 | |
| 05-SS-071-0406 | 04/11/11 09:20 | 04/12/11 15:26 | 04/19/11 10:15 | 8.08 | 14.00 | 04/20/11 19:50 | 1.40 | 40.00 | |
| 05-SS-076-0406 | 04/11/11 09:55 | 04/12/11 15:26 | 04/19/11 10:15 | 8.06 | 14.00 | 04/20/11 20:33 | 1.43 | 40.00 | |
| 05-SS-075-0406 | 04/11/11 10:20 | 04/12/11 15:26 | 04/19/11 10:15 | 8.04 | 14.00 | 04/20/11 21:15 | 1.46 | 40.00 | |
| 05-SS-077-0406 | 04/11/11 10:45 | 04/12/11 15:26 | 04/19/11 10:15 | 8.02 | 14.00 | 04/21/11 15:18 | 2.21 | 40.00 | |
| 05-SS-093-0204 | 04/11/11 12:23 | 04/12/11 15:26 | 04/19/11 10:15 | 7.95 | 14.00 | 04/20/11 22:39 | 1.52 | 40.00 | |
| 05-SS-094-0204 | 04/11/11 12:40 | 04/12/11 15:26 | 04/21/11 13:10 | 10.06 | 14.00 | 04/23/11 02:34 | 1.56 | 40.00 | |
| 05-SS-091-0204-D | 04/11/11 12:55 | 04/12/11 15:26 | 04/21/11 13:10 | 10.05 | 14.00 | 04/23/11 03:16 | 1.59 | 40.00 | |
| 05-SS-091-0204 | 04/11/11 12:55 | 04/12/11 15:26 | 04/21/11 13:10 | 10.05 | 14.00 | 04/23/11 03:58 | 1.62 | 40.00 | |
| 05-SS-092-0204 | 04/11/11 13:20 | 04/12/11 15:26 | 04/21/11 13:10 | 10.03 | 14.00 | 04/23/11 04:40 | 1.65 | 40.00 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11108 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11108-CCV1 ) mg/L** | | | | Lab File ID: 002F0201.D | | Analyzed: 04/19/11 09:11 | | |
| 2-Fluorobiphenyl | 25.00 | 88.8 | 75 - 125 | 10.653 | 10.653 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 88.4 | 75 - 125 | 16.266 | 16.266 | 0.0000 | +/-0.050 | |
| **Calibration Check (1D11108-CCV3 ) mg/L** | | | | Lab File ID: 030F3001.D | | Analyzed: 04/20/11 05:01 | | |
| 2-Fluorobiphenyl | 25.00 | 93.4 | 75 - 125 | 10.636 | 10.653 | -0.0170 | +/-0.050 | |
| o-Terphenyl | 25.00 | 94.4 | 75 - 125 | 16.256 | 16.266 | -0.0100 | +/-0.050 | |
| **Blank (1D16001-BLK1 ) mg/Kg wet** | | | | Lab File ID: 031F3101.D | | Analyzed: 04/20/11 05:43 | | |
| 2-Fluorobiphenyl | 3.333 | 64.2 | 50 - 150 | 10.703 | 10.653 | 0.0500 | +/-0.050 | |
| o-Terphenyl | 3.333 | 56.9 | 35 - 140 | 16.283 | 16.266 | 0.0170 | +/-0.050 | |
| **LCS (1D16001-BS1 ) mg/Kg wet** | | | | Lab File ID: 032F3201.D | | Analyzed: 04/20/11 06:25 | | |
| 2-Fluorobiphenyl | 3.333 | 65.2 | 50 - 150 | 10.66 | 10.653 | 0.0070 | +/-0.050 | |
| o-Terphenyl | 3.333 | 60.5 | 35 - 140 | 16.253 | 16.266 | -0.0130 | +/-0.050 | |
| **Calibration Check (1D11108-CCV4 ) mg/L** | | | | Lab File ID: 045F4501.D | | Analyzed: 04/20/11 15:36 | | |
| 2-Fluorobiphenyl | 25.00 | 87.7 | 75 - 125 | 10.61 | 10.653 | -0.0430 | +/-0.050 | |
| o-Terphenyl | 25.00 | 95.7 | 75 - 125 | 16.246 | 16.266 | -0.0200 | +/-0.050 | |
| **05-SS-067-0406-D (1104165-01 ) mg/Kg dry** | | | | Lab File ID: 048F4801.D | | Analyzed: 04/20/11 17:43 | | |
| 2-Fluorobiphenyl | 3.587 | 62.5 | 50 - 150 | 10.636 | 10.653 | -0.0170 | +/-0.050 | |
| o-Terphenyl | 3.587 | 60.8 | 35 - 140 | 16.25 | 16.266 | -0.0160 | +/-0.050 | |
| **05-SS-067-0406 (1104165-02 ) mg/Kg dry** | | | | Lab File ID: 049F4901.D | | Analyzed: 04/20/11 18:26 | | |
| 2-Fluorobiphenyl | 3.605 | 68.0 | 50 - 150 | 10.633 | 10.653 | -0.0200 | +/-0.050 | |
| o-Terphenyl | 3.605 | 64.7 | 35 - 140 | 16.246 | 16.266 | -0.0200 | +/-0.050 | |
| **05-SS-072-0406 (1104165-03 ) mg/Kg dry** | | | | Lab File ID: 050F5001.D | | Analyzed: 04/20/11 19:08 | | |
| 2-Fluorobiphenyl | 3.785 | 59.3 | 50 - 150 | 10.64 | 10.653 | -0.0130 | +/-0.050 | |
| o-Terphenyl | 3.785 | 56.4 | 35 - 140 | 16.25 | 16.266 | -0.0160 | +/-0.050 | |
| **05-SS-071-0406 (1104165-04 ) mg/Kg dry** | | | | Lab File ID: 051F5101.D | | Analyzed: 04/20/11 19:50 | | |
| 2-Fluorobiphenyl | 3.962 | 63.9 | 50 - 150 | 10.64 | 10.653 | -0.0130 | +/-0.050 | |
| o-Terphenyl | 3.962 | 61.8 | 35 - 140 | 16.25 | 16.266 | -0.0160 | +/-0.050 | |
| **05-SS-076-0406 (1104165-05 ) mg/Kg dry** | | | | Lab File ID: 052F5201.D | | Analyzed: 04/20/11 20:33 | | |
| 2-Fluorobiphenyl | 3.607 | 58.1 | 50 - 150 | 10.65 | 10.653 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 3.607 | 57.4 | 35 - 140 | 16.253 | 16.266 | -0.0130 | +/-0.050 | |
| **05-SS-075-0406 (1104165-06 ) mg/Kg dry** | | | | Lab File ID: 053F5301.D | | Analyzed: 04/20/11 21:15 | | |
| 2-Fluorobiphenyl | 3.859 | 60.8 | 50 - 150 | 10.646 | 10.653 | -0.0070 | +/-0.050 | |
| o-Terphenyl | 3.859 | 58.3 | 35 - 140 | 16.25 | 16.266 | -0.0160 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11108 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-093-0204 (1104165-09 ) mg/Kg dry** | | | | Lab File ID: 055F5501.D | | Analyzed: 04/20/11 22:39 | | |
| 2-Fluorobiphenyl | 3.507 | 58.5 | 50 - 150 | 10.656 | 10.653 | 0.0030 | +/-0.050 | |
| o-Terphenyl | 3.507 | 57.4 | 35 - 140 | 16.256 | 16.266 | -0.0100 | +/-0.050 | |
| **Calibration Check (1D11108-CCV5 ) mg/L** | | | | Lab File ID: 056F5601.D | | Analyzed: 04/20/11 23:22 | | |
| 2-Fluorobiphenyl | 25.00 | 84.3 | 75 - 125 | 10.62 | 10.653 | -0.0330 | +/-0.050 | |
| o-Terphenyl | 25.00 | 95.3 | 75 - 125 | 16.246 | 16.266 | -0.0200 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11214 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11214-CCV1 ) mg/L** | | | | Lab File ID: 012F1201.D | | Analyzed: 04/21/11 14:35 | | |
| 2-Fluorobiphenyl | 25.00 | 83.7 | 75 - 125 | 10.61 | 10.61 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 93.6 | 75 - 125 | 16.236 | 16.236 | 0.0000 | +/-0.050 | |
| **05-SS-077-0406 (1104165-07 ) mg/Kg dry** | | | | Lab File ID: 013F1301.D | | Analyzed: 04/21/11 15:18 | | |
| 2-Fluorobiphenyl | 3.490 | 40.7 | 50 - 150 | 10.753 | 10.61 | 0.1430 | +/-0.050 | * |
| o-Terphenyl | 3.490 | 43.8 | 35 - 140 | 16.263 | 16.236 | 0.0270 | +/-0.050 | |
| **Calibration Check (1D11214-CCV2 ) mg/L** | | | | Lab File ID: 026F2601.D | | Analyzed: 04/22/11 00:28 | | |
| 2-Fluorobiphenyl | 25.00 | 85.4 | 75 - 125 | 10.623 | 10.61 | 0.0130 | +/-0.050 | |
| o-Terphenyl | 25.00 | 88.4 | 75 - 125 | 16.243 | 16.236 | 0.0070 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11502 | Instrument: | GL-GCFID2 |
| | | Calibration: | 1104001 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1D11502-CCV1 ) mg/L** | | | | Lab File ID: 018F1801.D | | Analyzed: 04/22/11 22:21 | | |
| 2-Fluorobiphenyl | 25.00 | 81.6 | 75 - 125 | 10.613 | 10.613 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 94.8 | 75 - 125 | 16.236 | 16.236 | 0.0000 | +/-0.050 | |
| **Blank (1D20025-BLK1 ) mg/Kg wet** | | | | Lab File ID: 021F2101.D | | Analyzed: 04/23/11 00:27 | | |
| 2-Fluorobiphenyl | 3.333 | 63.6 | 50 - 150 | 10.753 | 10.613 | 0.1400 | +/-0.050 | * |
| o-Terphenyl | 3.333 | 60.8 | 35 - 140 | 16.28 | 16.236 | 0.0440 | +/-0.050 | |
| **LCS (1D20025-BS1 ) mg/Kg wet** | | | | Lab File ID: 022F2201.D | | Analyzed: 04/23/11 01:10 | | |
| 2-Fluorobiphenyl | 3.333 | 64.7 | 50 - 150 | 10.64 | 10.613 | 0.0270 | +/-0.050 | |
| o-Terphenyl | 3.333 | 63.1 | 35 - 140 | 16.24 | 16.236 | 0.0040 | +/-0.050 | |
| **LCS Dup (1D20025-BSD1 ) mg/Kg wet** | | | | Lab File ID: 023F2301.D | | Analyzed: 04/23/11 01:52 | | |
| 2-Fluorobiphenyl | 3.333 | 63.3 | 50 - 150 | 10.643 | 10.613 | 0.0300 | +/-0.050 | |
| o-Terphenyl | 3.333 | 64.3 | 35 - 140 | 16.24 | 16.236 | 0.0040 | +/-0.050 | |
| **05-SS-094-0204 (1104165-10 ) mg/Kg dry** | | | | Lab File ID: 024F2401.D | | Analyzed: 04/23/11 02:34 | | |
| 2-Fluorobiphenyl | 3.387 | 66.4 | 50 - 150 | 10.736 | 10.613 | 0.1230 | +/-0.050 | * |
| o-Terphenyl | 3.387 | 69.9 | 35 - 140 | 16.273 | 16.236 | 0.0370 | +/-0.050 | |
| **05-SS-091-0204-D (1104165-11 ) mg/Kg dry** | | | | Lab File ID: 025F2501.D | | Analyzed: 04/23/11 03:16 | | |
| 2-Fluorobiphenyl | 3.858 | 66.5 | 50 - 150 | 10.716 | 10.613 | 0.1030 | +/-0.050 | * |
| o-Terphenyl | 3.858 | 67.5 | 35 - 140 | 16.266 | 16.236 | 0.0300 | +/-0.050 | |
| **05-SS-091-0204 (1104165-12 ) mg/Kg dry** | | | | Lab File ID: 026F2601.D | | Analyzed: 04/23/11 03:58 | | |
| 2-Fluorobiphenyl | 3.660 | 66.5 | 50 - 150 | 10.696 | 10.613 | 0.0830 | +/-0.050 | * |
| o-Terphenyl | 3.660 | 68.2 | 35 - 140 | 16.256 | 16.236 | 0.0200 | +/-0.050 | |
| **05-SS-092-0204 (1104165-13 ) mg/Kg dry** | | | | Lab File ID: 027F2701.D | | Analyzed: 04/23/11 04:40 | | |
| 2-Fluorobiphenyl | 3.611 | 63.9 | 50 - 150 | 10.716 | 10.613 | 0.1030 | +/-0.050 | * |
| o-Terphenyl | 3.611 | 71.1 | 35 - 140 | 16.26 | 16.236 | 0.0240 | +/-0.050 | |
| **Calibration Check (1D11502-CCV2 ) mg/L** | | | | Lab File ID: 028F2801.D | | Analyzed: 04/23/11 05:23 | | |
| 2-Fluorobiphenyl | 25.00 | 81.0 | 75 - 125 | 10.616 | 10.613 | 0.0030 | +/-0.050 | |
| o-Terphenyl | 25.00 | 93.7 | 75 - 125 | 16.24 | 16.236 | 0.0040 | +/-0.050 | |

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| Cal Standard | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| Cal Standard | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| Cal Standard | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| Cal Standard | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| Cal Standard | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |
| Initial Cal Check | 1D10403-ICV1 | 009F0701.D | 04/13/11 19:46 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D10403 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11B0728 | FLPRO CAL6 85ppm | 1D10403-CAL6 | 003F0101.D | 04/13/11 15:31 |
| 11B0727 | FLPRO CAL5 850ppm | 1D10403-CAL5 | 004F0201.D | 04/13/11 16:14 |
| 11B0726 | FLPRO CAL4 2550ppm | 1D10403-CAL4 | 005F0301.D | 04/13/11 16:56 |
| 11B0725 | FLPRO CAL3 4250ppm | 1D10403-CAL3 | 006F0401.D | 04/13/11 17:39 |
| 11B0724 | FLPRO CAL2 5950ppm | 1D10403-CAL2 | 007F0501.D | 04/13/11 18:21 |
| 11B0723 | FLPRO CAL1 8500ppm | 1D10403-CAL1 | 008F0601.D | 04/13/11 19:04 |

# INITIAL CALIBRATION DATA
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1104001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 4/13/11 15:31 4/13/11 19:04 |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF | mg/L | RF |
| Petroleum Range Organics | 85 | 1579.718 | 850 | 1838.869 | 2550 | 1705.804 | 4250 | 1710.376 | 5950 | 1645.856 | 8500 | 1652.894 |
| 2-Fluorobiphenyl | 5 | 2272.8 | 10 | 3009.6 | 15 | 3284.4 | 25 | 3118.36 | 35 | 3090.714 | 50 | 2747.06 |
| o-Terphenyl | 5 | 3426.8 | 10 | 3721.9 | 15 | 3804.2 | 25 | 3999.32 | 35 | 3939.572 | 50 | 3924.96 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1104001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 4/13/11 15:31 4/13/11 19:04 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1688.919 | 5.182621 | 2.923 | 2.565533E-02 | | | 20 | |
| 2-Fluorobiphenyl | 2920.489 | 12.42221 | 10.68433 | 0.709301 | | | 20 | |
| o-Terphenyl | 3802.792 | 5.518154 | 16.28583 | 7.880568E-02 | | | 20 | |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 009F0701.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D10403 | Injection Date: | 04/13/11 |
| Lab Sample ID: | 1D10403-ICV1 | Injection Time: | 19:46 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4522 | 1688.919 | 1909.501 | | 13.1 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11108 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D11108-CCV1 | 002F0201.D | 04/19/11 09:11 |
| Calibration Check | 1D11108-CCV3 | 030F3001.D | 04/20/11 05:01 |
| Blank | 1D16001-BLK1 | 031F3101.D | 04/20/11 05:43 |
| LCS | 1D16001-BS1 | 032F3201.D | 04/20/11 06:25 |
| Calibration Check | 1D11108-CCV4 | 045F4501.D | 04/20/11 15:36 |
| 05-SS-067-0406-D | 1104165-01 | 048F4801.D | 04/20/11 17:43 |
| 05-SS-067-0406 | 1104165-02 | 049F4901.D | 04/20/11 18:26 |
| 05-SS-072-0406 | 1104165-03 | 050F5001.D | 04/20/11 19:08 |
| 05-SS-071-0406 | 1104165-04 | 051F5101.D | 04/20/11 19:50 |
| 05-SS-076-0406 | 1104165-05 | 052F5201.D | 04/20/11 20:33 |
| 05-SS-075-0406 | 1104165-06 | 053F5301.D | 04/20/11 21:15 |
| 05-SS-093-0204 | 1104165-09 | 055F5501.D | 04/20/11 22:39 |
| Calibration Check | 1D11108-CCV5 | 056F5601.D | 04/20/11 23:22 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/19/11 |
| Lab Sample ID: | 1D11108-CCV1 | Injection Time: | 09:11 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3785 | 1688.919 | 1504.083 | | -10.9 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 22.21 | 2920.489 | 2594.64 | | -11.2 | 25 |
| o-Terphenyl | A | 25.00 | 22.09 | 3802.792 | 3360.36 | | -11.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 030F3001.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/20/11 |
| Lab Sample ID: | 1D11108-CCV3 | Injection Time: | 05:01 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4166 | 1688.919 | 1655.591 | | -2.0 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 23.35 | 2920.489 | 2728.28 | | -6.6 | 25 |
| o-Terphenyl | A | 25.00 | 23.59 | 3802.792 | 3588.28 | | -5.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 045F4501.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/20/11 |
| Lab Sample ID: | 1D11108-CCV4 | Injection Time: | 15:36 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3924 | 1688.919 | 1559.511 | | -7.7 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 21.93 | 2920.489 | 2562.04 | | -12.3 | 25 |
| o-Terphenyl | A | 25.00 | 23.92 | 3802.792 | 3639.04 | | -4.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 056F5601.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11108 | Injection Date: | 04/20/11 |
| Lab Sample ID: | 1D11108-CCV5 | Injection Time: | 23:22 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3935 | 1688.919 | 1563.746 | | -7.4 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 21.08 | 2920.489 | 2462.04 | | -15.7 | 25 |
| o-Terphenyl | A | 25.00 | 23.83 | 3802.792 | 3625.32 | | -4.7 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11214 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D11214-CCV1 | 012F1201.D | 04/21/11 14:35 |
| 05-SS-077-0406 | 1104165-07 | 013F1301.D | 04/21/11 15:18 |
| Calibration Check | 1D11214-CCV2 | 026F2601.D | 04/22/11 00:28 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 012F1201.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11214 | Injection Date: | 04/21/11 |
| Lab Sample ID: | 1D11214-CCV1 | Injection Time: | 14:35 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3800 | 1688.919 | 1509.994 | | -10.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 20.93 | 2920.489 | 2445.2 | | -16.3 | 25 |
| o-Terphenyl | A | 25.00 | 23.41 | 3802.792 | 3561 | | -6.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 026F2601.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11214 | Injection Date: | 04/22/11 |
| Lab Sample ID: | 1D11214-CCV2 | Injection Time: | 00:28 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4055 | 1688.919 | 1611.352 | | -4.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 21.34 | 2920.489 | 2493.52 | | -14.6 | 25 |
| o-Terphenyl | A | 25.00 | 22.10 | 3802.792 | 3362.24 | | -11.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11502 | Instrument: | GL-GCFID2 |
| Calibration: | 1104001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1D11502-CCV1 | 018F1801.D | 04/22/11 22:21 |
| Blank | 1D20025-BLK1 | 021F2101.D | 04/23/11 00:27 |
| LCS | 1D20025-BS1 | 022F2201.D | 04/23/11 01:10 |
| LCS Dup | 1D20025-BSD1 | 023F2301.D | 04/23/11 01:52 |
| 05-SS-094-0204 | 1104165-10 | 024F2401.D | 04/23/11 02:34 |
| 05-SS-091-0204-D | 1104165-11 | 025F2501.D | 04/23/11 03:16 |
| 05-SS-091-0204 | 1104165-12 | 026F2601.D | 04/23/11 03:58 |
| 05-SS-092-0204 | 1104165-13 | 027F2701.D | 04/23/11 04:40 |
| Calibration Check | 1D11502-CCV2 | 028F2801.D | 04/23/11 05:23 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 018F1801.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11502 | Injection Date: | 04/22/11 |
| Lab Sample ID: | 1D11502-CCV1 | Injection Time: | 22:21 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3896 | 1688.919 | 1548.174 | | -8.3 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 20.40 | 2920.489 | 2382.6 | | -18.4 | 25 |
| o-Terphenyl | A | 25.00 | 23.69 | 3802.792 | 3604.16 | | -5.2 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1104001 |
| Lab File ID: | 028F2801.D | Calibration Date: | 04/13/11 00:00 |
| Sequence: | 1D11502 | Injection Date: | 04/23/11 |
| Lab Sample ID: | 1D11502-CCV2 | Injection Time: | 05:23 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3907 | 1688.919 | 1552.72 | | -8.1 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 20.25 | 2920.489 | 2366.08 | | -19.0 | 25 |
| o-Terphenyl | A | 25.00 | 23.42 | 3802.792 | 3563.04 | | -6.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D16001 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-067-0406-D | 1104165-01 | 04/19/11 10:15 | 15.60 | 2.00 |
| 05-SS-067-0406 | 1104165-02 | 04/19/11 10:15 | 15.30 | 2.00 |
| 05-SS-072-0406 | 1104165-03 | 04/19/11 10:15 | 15.20 | 2.00 |
| 05-SS-071-0406 | 1104165-04 | 04/19/11 10:15 | 15.20 | 2.00 |
| 05-SS-076-0406 | 1104165-05 | 04/19/11 10:15 | 15.00 | 2.00 |
| 05-SS-075-0406 | 1104165-06 | 04/19/11 10:15 | 15.70 | 2.00 |
| 05-SS-077-0406 | 1104165-07 | 04/19/11 10:15 | 15.30 | 2.00 |
| 05-SS-093-0204 | 1104165-09 | 04/19/11 10:15 | 15.10 | 2.00 |
| Blank | 1D16001-BLK1 | 04/19/11 10:15 | 15.00 | 2.00 |
| LCS | 1D16001-BS1 | 04/19/11 10:15 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D16001-BLK1 | File ID: | 031F3101.D |
| Sampled: | | Prepared: | | Analyzed: | 04/20/11 05:43 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D16001 Sequence: 1D11108 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.140 | 64.2 | 50 - 150 | |
| o-Terphenyl | 3.333 | 1.897 | 56.9 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D16001 | Laboratory ID: | 1D16001-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 169.8 | 79.6 | 50 - 140 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: CTOJM26_008

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1D20025 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-094-0204 | 1104165-10 | 04/21/11 13:10 | 15.60 | 2.00 |
| 05-SS-091-0204-D | 1104165-11 | 04/21/11 13:10 | 15.20 | 2.00 |
| 05-SS-091-0204 | 1104165-12 | 04/21/11 13:10 | 15.40 | 2.00 |
| 05-SS-092-0204 | 1104165-13 | 04/21/11 13:10 | 15.20 | 2.00 |
| Blank | 1D20025-BLK1 | 04/21/11 13:10 | 15.00 | 2.00 |
| LCS | 1D20025-BS1 | 04/21/11 13:10 | 15.00 | 2.00 |
| LCS Dup | 1D20025-BSD1 | 04/21/11 13:10 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | CTOJM26_008 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1D20025-BLK1 | File ID: | 021F2101.D |
| Sampled: | | Prepared: | | Analyzed: | 04/23/11 00:27 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1D20025 Sequence: 1D11502 Calibration: 1104001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.121 | 63.6 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.026 | 60.8 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | CTOJM26_008 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Solid | | |
| Batch: | 1D20025 | Laboratory ID: | 1D20025-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 180.8 | 84.8 | 50 - 140 |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCSD CONCENTRATION (mg/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 177.8 | 83.3 | 1.71 | 40 | 50 - 140 |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC

**SDG:** CTOJM26_008

**Client:** Tetra Tech NUS, Inc. (T010)

**Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid

**Instrument:** GL-GCFID2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |

**Tetra Tech NUS** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **SEPTEMBER 19, 2011** |
| **FROM:** | **A. COGNETTI** | **COPIES:** | **DV FILE** |

**SUBJECT:** **ORGANIC DATA VALIDATION: PAH/TRPH**
**SAUFLEY FIELD, CTO JM26**
**SAMPLE DELIVERY GROUP (SDG) - 1108025**

**SAMPLES:** 37/Soil/ PAH

| | | | |
|---|---|---|---|
| 05-SS-103-0406 | 05-SS-104-0002 | 05-SS-104-0204 | 05-SS-104-0406 |
| 05-SS-104-0608 | 05-SS-105-0002 | 05-SS-105-0204 | 05-SS-105-0406 |
| 05-SS-105-0406D | 05-SS-105-0608 | 05-SS-106-0002 | 05-SS-106-0204 |
| 05-SS-106-0406 | 05-SS-106-0608 | 05-SS-107-0002 | 05-SS-107-0204 |
| 05-SS-107-0406 | 05-SS-107-0608 | 05-SS-108-0002 | 05-SS-108-0002D |
| 05-SS-108-0204 | 05-SS-108-0406 | 05-SS-108-0608 | 05-SS-109-0002 |
| 05-SS-109-0204 | 05-SS-109-0406 | 05-SS-109-0608 | 05-SS-110-0002 |
| 05-SS-110-0204 | 05-SS-110-0406 | 05-SS-110-0406D | 05-SS-110-0608 |
| 05-SS-111-0002 | 05-SS-111-0204 | 05-SS-111-0406 | 05-SS-111-0608 |
| 05-SS-111-0608D | | | |

2/Aqueous/PAH/TRPH

Equip Blank #1 Equip Blank #2

13/Soil/TRPH

| | | | |
|---|---|---|---|
| 05-SS-099-0002 | 05-SS-100-0002 | 05-SS-100-0002D | 05-SS-100-0204 |
| 05-SS-100-0406 | 05-SS-101-0002 | 05-SS-101-0204 | 05-SS-101-0406 |
| 05-SS-102-0002 | 05-SS-102-0204 | 05-SS-103-0002 | 05-SS-103-0204 |
| 05-SS-103-0406 | | | |

## OVERVIEW

The sample set for Saufley Field, CTO JM26, SDG 1108025 consisted of thirty seven (37) soil environmental samples and two (2) equipment blanks analyzed for polynuclear aromatic hydrocarbons (PAHs). Thirteen (13) soil environmental samples and the two (2) equipment blanks were analyzed for total recoverable petroleum hydrocarbons (TRPH). There are five (5) field duplicate pairs associated with this SDG: 05-SS-105-0406/05-SS-105-0406D, 05-SS-108-0002/05-SS-108-0002D, 05-SS-110-0406/05-SS-110-0406D, 05-SS-111-0608/05-SS-111-0608D and 05-SS-100-0002/05-SS-100-0002D

The samples were collected by TetraTech NUS on July 30, 2011 and analyzed by Empirical Laboratories LLC. All analyses were conducted using USEPA SW-846 Method 8270C for PAHs and Florida Petroleum Range Organics (FL-PRO) for TPH analytical and reporting protocols.

The sample data in this SDG were validated with regard to the following list of parameters.

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibration
  • Laboratory Blank Analyses
* • Field Duplicate Precision
* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

**PAH**

Contaminants were detected in the laboratory method blank associated with batch 1H03010 analyzed on August 17, 2011.

| Contaminant | Maximum Concentration (mg/kg) | Action Level (mg/kg) |
|---|---|---|
| Benzo(a)anthracene | 0.00392 | 0.0196 |
| Benzo(a)pyrene | 0.00458 | 0.0229 |
| Benzo(b)fluoranthene | 0.00571 | 0.02855 |
| Benzo(k)fluoranthene | 0.00411 | 0.02055 |
| Chrysene | 0.00573 | 0.02865 |
| Fluoranthene | 0.0104 | 0.052 |
| Indeno(1,2,3-cd)pyrene | 0.00236 | 0.0188 |
| Phenanthrene | 0.00424 | 0.0212 |
| Pyrene | 0.00855 | 0.04275 |

An action level of 5X the maximum concentration of contaminants was established in order to evaluate samples for blank contamination. Sample aliquot, percent solids and dilution factors were taken in to account when applying the action level. Positive results less than the action level were qualified as (U).

**TRPH**

No issues were identified.

**ADDITIONAL COMMENTS**

A contaminant was detected in the laboratory method blank associated with batch 1H03008 affecting the equipment blanks analyzed on August 17, 2011.

| Contaminant | Maximum Concentration (ug/L) |
|---|---|
| Phenanthrene | 0.173 |

No action was taken on the equipment blanks.

The equipment blanks contained several PAHs. No action was taken.

All Project Action Limits (PALs) for PAHs and TRPH were satisfied.

Nondetected results were reported to the method detection limit.

Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

TO: G. Pope
FROM: A. Cognetti
SDG: 1108025
DATE: September 19, 2011



**EXECUTIVE SUMMARY**

**Laboratory Performance Issues:** Several contaminants were detected laboratory method blanks in the PAH fraction.

**Other factors affecting data quality:** Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (October 1999), Site 5 Saufley Field Sample Analysis Plan (SAP) (December 2010), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009). The text of this report has been formulated to address only those problem areas affecting data quality.

Ann Cognetti

Tetra Tech NUS
Ann Cognetti
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

**Data Validation Qualifier Codes:**

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

| PROJ_NO: 02748 | NSAMPLE | 05-SS-103-0406 | | | 05-SS-104-0002 | | | 05-SS-104-0204 | | | 05-SS-104-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-13 | | | 1108025-14 | | | 1108025-15 | | | 1108025-16 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.6 | | | 85.4 | | | 79.8 | | | 91.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| 2-METHYLNAPHTHALENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| ACENAPHTHENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| ACENAPHTHYLENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| ANTHRACENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| BENZO(A)ANTHRACENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| BENZO(A)PYRENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| BENZO(B)FLUORANTHENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| BENZO(K)FLUORANTHENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| CHRYSENE | | 0.00173 | U | | 0.00193 | U | | 0.0028 | U | A | 0.00175 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| FLUORANTHENE | | 0.00173 | U | | 0.00237 | U | A | 0.00527 | U | A | 0.00175 | U | |
| FLUORENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| NAPHTHALENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | U | | 0.00175 | U | |
| PHENANTHRENE | | 0.0019 | J | P | 0.0051 | U | A | 0.00518 | U | A | 0.00386 | U | A |
| PYRENE | | 0.00173 | U | | 0.00193 | U | | 0.00205 | J | P | 0.00175 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-104-0608 | | | 05-SS-105-0002 | | | 05-SS-105-0204 | | | 05-SS-105-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-17 | | | 1108025-18 | | | 1108025-19 | | | 1108025-20 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 83.5 | | | 77.9 | | | 80.9 | | | 84.6 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| 2-METHYLNAPHTHALENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| ACENAPHTHENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| ACENAPHTHYLENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| ANTHRACENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| BENZO(A)ANTHRACENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00292 | U | A |
| BENZO(A)PYRENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| BENZO(B)FLUORANTHENE | | 0.00199 | U | | 0.0047 | U | A | 0.00205 | U | | 0.00195 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| BENZO(K)FLUORANTHENE | | 0.00199 | U | | 0.00245 | U | A | 0.00205 | U | | 0.00195 | U | |
| CHRYSENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00356 | U | A |
| DIBENZO(A,H)ANTHRACENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| FLUORANTHENE | | 0.00199 | U | | 0.00762 | U | A | 0.00205 | U | | 0.00873 | U | A |
| FLUORENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| NAPHTHALENE | | 0.00199 | U | | 0.00209 | U | | 0.00205 | U | | 0.00195 | U | |
| PHENANTHRENE | | 0.00496 | U | A | 0.00678 | U | A | 0.00391 | U | A | 0.00941 | U | A |
| PYRENE | | 0.00199 | U | | 0.00607 | J | P | 0.00205 | U | | 0.00721 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-105-0406D | | | 05-SS-105-0608 | | | 05-SS-106-0002 | | | 05-SS-106-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-22 | | | 1108025-21 | | | 1108025-23 | | | 1108025-24 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 78.4 | | | 84.9 | | | 82.1 | | | 89.5 | | |
| | DUP_OF | 05-SS-105-0406 | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| 2-METHYLNAPHTHALENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| ACENAPHTHENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| ACENAPHTHYLENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| ANTHRACENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| BENZO(A)ANTHRACENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| BENZO(A)PYRENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| BENZO(B)FLUORANTHENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| BENZO(K)FLUORANTHENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| CHRYSENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| FLUORANTHENE | | 0.00395 | U | A | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| FLUORENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| NAPHTHALENE | | 0.00209 | U | | 0.0019 | U | | 0.00198 | U | | 0.00181 | U | |
| PHENANTHRENE | | 0.00209 | U | | 0.00394 | U | A | 0.00314 | U | A | 0.00241 | U | A |
| PYRENE | | 0.0028 | J | P | 0.00206 | J | P | 0.00198 | U | | 0.00181 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-106-0406 | | | 05-SS-106-0608 | | | 05-SS-107-0002 | | | 05-SS-107-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-25 | | | 1108025-26 | | | 1108025-27 | | | 1108025-28 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.4 | | | 90.8 | | | 85.0 | | | 81.6 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| 2-METHYLNAPHTHALENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| ACENAPHTHENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| ACENAPHTHYLENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| ANTHRACENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| BENZO(A)ANTHRACENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| BENZO(A)PYRENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| BENZO(B)FLUORANTHENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| BENZO(K)FLUORANTHENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| CHRYSENE | | 0.0018 | U | | 0.00182 | U | | 0.00732 | U | A | 0.00202 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| FLUORANTHENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| FLUORENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| NAPHTHALENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |
| PHENANTHRENE | | 0.00191 | U | A | 0.00213 | U | A | 0.00411 | U | A | 0.00385 | U | A |
| PYRENE | | 0.0018 | U | | 0.00182 | U | | 0.00195 | U | | 0.00202 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-107-0406 | | | 05-SS-107-0608 | | | 05-SS-108-0002 | | | 05-SS-108-0002D | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-29 | | | 1108025-30 | | | 1108025-31 | | | 1108025-32 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 86.0 | | | 81.9 | | | 80.8 | | | 81.1 | | |
| | DUP_OF | | | | | | | | | | 05-SS-108-0002 | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00195 | U | |
| 2-METHYLNAPHTHALENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00195 | U | |
| ACENAPHTHENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00195 | U | |
| ACENAPHTHYLENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00269 | J | P |
| ANTHRACENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00195 | U | |
| BENZO(A)ANTHRACENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.0068 | U | A |
| BENZO(A)PYRENE | | 0.00193 | U | | 0.00196 | U | | 0.0037 | U | A | 0.0124 | U | A |
| BENZO(B)FLUORANTHENE | | 0.00193 | U | | 0.00196 | U | | 0.0033 | U | A | 0.0156 | U | A |
| BENZO(G,H,I)PERYLENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00196 | | |
| BENZO(K)FLUORANTHENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00533 | U | A |
| CHRYSENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00862 | U | A |
| DIBENZO(A,H)ANTHRACENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00195 | U | |
| FLUORANTHENE | | 0.00193 | U | | 0.00216 | U | A | 0.00286 | U | A | 0.0107 | U | A |
| FLUORENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00195 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00195 | U | |
| NAPHTHALENE | | 0.00193 | U | | 0.00196 | U | | 0.00205 | U | | 0.00195 | U | |
| PHENANTHRENE | | 0.00252 | U | A | 0.00393 | U | A | 0.00474 | U | A | 0.00716 | U | A |
| PYRENE | | 0.00193 | U | | 0.00196 | U | | 0.00254 | J | P | 0.0107 | | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-108-0204 | | | 05-SS-108-0406 | | | 05-SS-108-0608 | | | 05-SS-109-0002 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-33 | | | 1108025-34 | | | 1108025-35 | | | 1108025-36 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 79.7 | | | 79.8 | | | 77.4 | | | 85.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00198 | U | | 0.00205 | U | | 0.00255 | J | P | 0.00192 | U | |
| 2-METHYLNAPHTHALENE | | 0.00198 | U | | 0.00205 | U | | 0.00362 | J | P | 0.00192 | U | |
| ACENAPHTHENE | | 0.00198 | U | | 0.00205 | U | | 0.00709 | J | P | 0.00192 | U | |
| ACENAPHTHYLENE | | 0.00198 | U | | 0.00205 | U | | 0.00482 | J | P | 0.00192 | U | |
| ANTHRACENE | | 0.00198 | U | | 0.00205 | U | | 0.0092 | | | 0.00194 | J | P |
| BENZO(A)ANTHRACENE | | 0.00198 | U | | 0.00205 | U | | 0.00214 | U | | 0.00391 | J | P |
| BENZO(A)PYRENE | | 0.00198 | U | | 0.00205 | U | | 0.00214 | U | | 0.00632 | J | P |
| BENZO(B)FLUORANTHENE | | 0.00198 | U | | 0.00205 | U | | 0.00214 | U | | 0.0105 | | |
| BENZO(G,H,I)PERYLENE | | 0.00198 | U | | 0.00588 | J | P | 0.00214 | U | | 0.00949 | | |
| BENZO(K)FLUORANTHENE | | 0.00198 | U | | 0.00205 | U | | 0.00214 | U | | 0.00192 | U | |
| CHRYSENE | | 0.00198 | U | | 0.00205 | U | | 0.00214 | U | | 0.00519 | J | P |
| DIBENZO(A,H)ANTHRACENE | | 0.00198 | U | | 0.00205 | U | | 0.00214 | U | | 0.00192 | U | |
| FLUORANTHENE | | 0.00198 | U | | 0.00205 | U | | 0.00642 | J | P | 0.00265 | J | P |
| FLUORENE | | 0.00198 | U | | 0.00205 | U | | 0.0113 | | | 0.00192 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00198 | U | | 0.00205 | U | | 0.00214 | U | | 0.00989 | | |
| NAPHTHALENE | | 0.00198 | U | | 0.00205 | U | | 0.00214 | U | | 0.00192 | U | |
| PHENANTHRENE | | 0.00207 | U | A | 0.00301 | U | A | 0.0128 | | | 0.00528 | J | P |
| PYRENE | | 0.00198 | U | | 0.00205 | U | | 0.00482 | J | P | 0.00412 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-109-0204 | | | 05-SS-109-0406 | | | 05-SS-109-0608 | | | 05-SS-110-0002 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-37 | | | 1108025-38 | | | 1108025-39 | | | 1108025-40 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 79.9 | | | 82.7 | | | 94.8 | | | 86.8 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00204 | U | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| 2-METHYLNAPHTHALENE | | 0.00204 | U | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| ACENAPHTHENE | | 0.00204 | U | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| ACENAPHTHYLENE | | 0.00383 | J | P | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| ANTHRACENE | | 0.00211 | J | P | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| BENZO(A)ANTHRACENE | | 0.00663 | J | P | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| BENZO(A)PYRENE | | 0.0112 | | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| BENZO(B)FLUORANTHENE | | 0.0149 | | | 0.00227 | J | P | 0.0017 | U | | 0.00184 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0148 | | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| BENZO(K)FLUORANTHENE | | 0.00779 | J | P | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| CHRYSENE | | 0.00796 | J | P | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00581 | J | P | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| FLUORANTHENE | | 0.00714 | J | P | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| FLUORENE | | 0.00204 | U | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0116 | | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| NAPHTHALENE | | 0.00204 | U | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |
| PHENANTHRENE | | 0.00516 | J | P | 0.00296 | J | P | 0.00249 | J | P | 0.00361 | J | P |
| PYRENE | | 0.00847 | | | 0.00197 | U | | 0.0017 | U | | 0.00184 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-110-0204 | | | 05-SS-110-0406 | | | 05-SS-110-0406D | | | 05-SS-110-0608 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-41 | | | 1108025-42 | | | 1108025-49 | | | 1108025-43 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 86.3 | | | 85.6 | | | 84.8 | | | 73.1 | | |
| | DUP_OF | | | | | | | 05-SS-110-0406 | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| 2-METHYLNAPHTHALENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| ACENAPHTHENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| ACENAPHTHYLENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| ANTHRACENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| BENZO(A)ANTHRACENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| BENZO(A)PYRENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| BENZO(B)FLUORANTHENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| BENZO(K)FLUORANTHENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| CHRYSENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| FLUORANTHENE | | 0.00186 | U | | 0.00243 | J | P | 0.00196 | U | | 0.00217 | U | |
| FLUORENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| NAPHTHALENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |
| PHENANTHRENE | | 0.00425 | J | P | 0.00446 | J | P | 0.00349 | J | P | 0.00591 | J | P |
| PYRENE | | 0.00186 | U | | 0.00194 | U | | 0.00196 | U | | 0.00217 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-111-0002 | | | 05-SS-111-0204 | | | 05-SS-111-0406 | | | 05-SS-111-0608 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-44 | | | 1108025-45 | | | 1108025-46 | | | 1108025-47 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 86.7 | | | 78.0 | | | 79.1 | | | 74.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00188 | U | | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| 2-METHYLNAPHTHALENE | | 0.00188 | U | | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| ACENAPHTHENE | | 0.00226 | J | P | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| ACENAPHTHYLENE | | 0.0618 | | | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| ANTHRACENE | | 0.0143 | | | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| BENZO(A)ANTHRACENE | | 0.105 | | | 0.00652 | J | P | 0.00207 | U | | 0.00222 | U | |
| BENZO(A)PYRENE | | 0.195 | | | 0.00642 | J | P | 0.00207 | U | | 0.00222 | U | |
| BENZO(B)FLUORANTHENE | | 0.255 | | | 0.00841 | | | 0.00207 | U | | 0.00222 | U | |
| BENZO(G,H,I)PERYLENE | | 0.193 | | | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| BENZO(K)FLUORANTHENE | | 0.0876 | | | 0.0031 | J | P | 0.00207 | U | | 0.00222 | U | |
| CHRYSENE | | 0.119 | | | 0.00649 | J | P | 0.00207 | U | | 0.00222 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0489 | | | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| FLUORANTHENE | | 0.115 | | | 0.0103 | | | 0.00207 | U | | 0.00222 | U | |
| FLUORENE | | 0.00425 | J | P | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.18 | | | 0.00549 | J | P | 0.00207 | U | | 0.00222 | U | |
| NAPHTHALENE | | 0.00188 | U | | 0.0021 | U | | 0.00207 | U | | 0.00222 | U | |
| PHENANTHRENE | | 0.026 | | | 0.00902 | | | 0.00298 | J | P | 0.00407 | J | P |
| PYRENE | | 0.126 | | | 0.00808 | J | P | 0.00207 | U | | 0.00222 | U | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-111-Q608D | | |
| **SDG: 1108025** | LAB_ID | 1108025-48 | | |
| **FRACTION: PAH** | SAMP_DATE | 7/30/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | MG/KG | | |
| | PCT_SOLIDS | 86.9 | | |
| | DUP_OF | 05-SS-111-0608 | | |
| PARAMETER | | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.00191 | U | |
| 2-METHYLNAPHTHALENE | | 0.00191 | U | |
| ACENAPHTHENE | | 0.00191 | U | |
| ACENAPHTHYLENE | | 0.00191 | U | |
| ANTHRACENE | | 0.00191 | U | |
| BENZO(A)ANTHRACENE | | 0.00191 | U | |
| BENZO(A)PYRENE | | 0.00191 | U | |
| BENZO(B)FLUORANTHENE | | 0.00191 | U | |
| BENZO(G,H,I)PERYLENE | | 0.00191 | U | |
| BENZO(K)FLUORANTHENE | | 0.00191 | U | |
| CHRYSENE | | 0.00191 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.00191 | U | |
| FLUORANTHENE | | 0.00191 | U | |
| FLUORENE | | 0.00191 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.00191 | U | |
| NAPHTHALENE | | 0.00191 | U | |
| PHENANTHRENE | | 0.0027 | J | P |
| PYRENE | | 0.00191 | U | |

| PROJ_NO: 02748 | NSAMPLE | EQUIP BLANK #1 | | | EQUIP BLANK #2 | | |
|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-50 | | | 1108025-51 | | |
| FRACTION: PAH | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | |
| | UNITS | UG/L | | | UG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0467 | U | | 0.0467 | U | |
| 2-METHYLNAPHTHALENE | | 0.0467 | U | | 0.0467 | U | |
| ACENAPHTHENE | | 0.0467 | U | | 0.139 | J | P |
| ACENAPHTHYLENE | | 0.0467 | U | | 0.0467 | U | |
| ANTHRACENE | | 0.0467 | U | | 0.0467 | U | |
| BENZO(A)ANTHRACENE | | 0.0467 | U | | 0.0467 | U | |
| BENZO(A)PYRENE | | 0.0467 | U | | 0.0467 | U | |
| BENZO(B)FLUORANTHENE | | 0.0467 | U | | 0.0467 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0467 | U | | 0.0467 | U | |
| BENZO(K)FLUORANTHENE | | 0.0467 | U | | 0.0467 | U | |
| CHRYSENE | | 0.0467 | U | | 0.0467 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0467 | U | | 0.0467 | U | |
| FLUORANTHENE | | 0.0553 | J | P | 0.0529 | J | P |
| FLUORENE | | 0.0467 | U | | 0.0467 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0467 | U | | 0.0467 | U | |
| NAPHTHALENE | | 0.0467 | U | | 0.0467 | U | |
| PHENANTHRENE | | 0.142 | J | P | 0.167 | J | P |
| PYRENE | | 0.0467 | U | | 0.0467 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-099-0002 | | | 05-SS-100-0002 | | | 05-SS-100-0002D | | | 05-SS-100-0204 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-10 | | | 1108025-06 | | | 1108025-09 | | | 1108025-07 | | |
| FRACTION: PET | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.5 | | | 91.3 | | | 81.9 | | | 87.7 | | |
| | DUP_OF | | | | | | | 05-SS-100-0002 | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 1970 | | | 15.8 | J | P | 20.8 | J | P | 31.7 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-100-0406 | | | 05-SS-101-0002 | | | 05-SS-101-0204 | | | 05-SS-101-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-08 | | | 1108025-01 | | | 1108025-02 | | | 1108025-03 | | |
| FRACTION: PET | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 84.3 | | | 92.8 | | | 94.1 | | | 94.2 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 23.8 | J | P | 84.7 | | | 30.4 | J | P | 20.6 | J | P |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-102-0002 | | | 05-SS-102-0204 | | | 05-SS-103-0002 | | | 05-SS-103-0204 | | |
| **SDG: 1108025** | LAB_ID | 1108025-04 | | | 1108025-05 | | | 1108025-11 | | | 1108025-12 | | |
| **FRACTION: PET** | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | | 7/30/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 87.7 | | | 80.1 | | | 87.1 | | | 91.9 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 18.2 | J | P | 37.5 | J | P | 42.2 | J | P | 33.4 | J | P |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | 05-SS-103-0406 | | |
| **SDG: 1108025** | LAB_ID | 1108025-13 | | |
| **FRACTION: PET** | SAMP_DATE | 7/30/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | MG/KG | | |
| | PCT_SOLIDS | 92.6 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 20 | J | P |

| PROJ_NO: 02748 | NSAMPLE | EQUIP BLANK #1 | | | EQUIP BLANK #2 | | |
|---|---|---|---|---|---|---|---|
| SDG: 1108025 | LAB_ID | 1108025-50 | | | 1108025-51 | | |
| FRACTION: PET | SAMP_DATE | 7/30/2011 | | | 7/30/2011 | | |
| MEDIA: WATER | QC_TYPE | NM | | | NM | | |
| | UNITS | MG/L | | | MG/L | | |
| | PCT_SOLIDS | 0.0 | | | 0.0 | | |
| | DUP_OF | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.157 | U | | 0.17 | U | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-SS-103-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-13 | File ID: | 0802513.D |
| Sampled: | 07/30/11 09:35 | Prepared: | 08/09/11 16:52 | Analyzed: | 08/11/11 19:12 |
| Solids: | 92.61 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H08006 Sequence: 1H22411 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00173 | 0.00346 | 0.00693 | U |
| 208-96-8 | Acenaphthylene | | 0.00173 | 0.00346 | 0.00693 | U |
| 120-12-7 | Anthracene | | 0.00173 | 0.00346 | 0.00693 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00173 | 0.00346 | 0.00693 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00173 | 0.00346 | 0.00693 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00173 | 0.00346 | 0.00693 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00173 | 0.00346 | 0.00693 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00173 | 0.00346 | 0.00693 | U |
| 218-01-9 | Chrysene | | 0.00173 | 0.00346 | 0.00693 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00173 | 0.00346 | 0.00693 | U |
| 206-44-0 | Fluoranthene | | 0.00173 | 0.00346 | 0.00693 | U |
| 86-73-7 | Fluorene | | 0.00173 | 0.00346 | 0.00693 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00173 | 0.00346 | 0.00693 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00173 | 0.00346 | 0.00693 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00173 | 0.00346 | 0.00693 | U |
| 91-20-3 | Naphthalene | | 0.00173 | 0.00346 | 0.00693 | U |
| 85-01-8 | Phenanthrene | 0.00190 | 0.00173 | 0.00346 | 0.00693 | I |
| 129-00-0 | Pyrene | | 0.00173 | 0.00346 | 0.00693 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.392 | 3.070 | 90.5 | 14 - 129 | |
| Terphenyl-d14 | 3.392 | 2.584 | 76.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-104-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-14 | File ID: | 0802514.D |
| Sampled: | 07/30/11 10:10 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 15:56 |
| Solids: | 85.42 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00193 | 0.00385 | 0.00771 | U |
| 208-96-8 | Acenaphthylene | | 0.00193 | 0.00385 | 0.00771 | U |
| 120-12-7 | Anthracene | | 0.00193 | 0.00385 | 0.00771 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00193 | 0.00385 | 0.00771 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00193 | 0.00385 | 0.00771 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00193 | 0.00385 | 0.00771 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00193 | 0.00385 | 0.00771 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00193 | 0.00385 | 0.00771 | U |
| 218-01-9 | Chrysene | | 0.00193 | 0.00385 | 0.00771 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00193 | 0.00385 | 0.00771 | U |
| 206-44-0 | Fluoranthene | 0.00237 | 0.00193 | 0.00385 | 0.00771 | IV |
| 86-73-7 | Fluorene | | 0.00193 | 0.00385 | 0.00771 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00193 | 0.00385 | 0.00771 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00193 | 0.00385 | 0.00771 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00193 | 0.00385 | 0.00771 | U |
| 91-20-3 | Naphthalene | | 0.00193 | 0.00385 | 0.00771 | U |
| 85-01-8 | Phenanthrene | 0.00510 | 0.00193 | 0.00385 | 0.00771 | IV |
| 129-00-0 | Pyrene | | 0.00193 | 0.00385 | 0.00771 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.774 | 3.420 | 90.6 | 14 - 129 | |
| Terphenyl-d14 | 3.774 | 2.632 | 69.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-104-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-15 | File ID: | 0802515.D |
| Sampled: | 07/30/11 10:15 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 17:24 |
| Solids: | 79.82 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 208-96-8 | Acenaphthylene | | 0.00205 | 0.00409 | 0.00819 | U |
| 120-12-7 | Anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00205 | 0.00409 | 0.00819 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00205 | 0.00409 | 0.00819 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 218-01-9 | Chrysene | 0.00280 | 0.00205 | 0.00409 | 0.00819 | IV |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 206-44-0 | Fluoranthene | 0.00527 | 0.00205 | 0.00409 | 0.00819 | IV |
| 86-73-7 | Fluorene | | 0.00205 | 0.00409 | 0.00819 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00205 | 0.00409 | 0.00819 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 91-20-3 | Naphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 85-01-8 | Phenanthrene | 0.00518 | 0.00205 | 0.00409 | 0.00819 | IV |
| 129-00-0 | Pyrene | 0.00517 | 0.00205 | 0.00409 | 0.00819 | IV |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.012 | 3.563 | 88.8 | 14 - 129 | |
| Terphenyl-d14 | 4.012 | 3.194 | 79.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-104-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-16 | File ID: | 0802516.D |
| Sampled: | 07/30/11 10:20 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 17:54 |
| Solids: | 91.32 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00175 | 0.00348 | 0.00698 | U |
| 208-96-8 | Acenaphthylene | | 0.00175 | 0.00348 | 0.00698 | U |
| 120-12-7 | Anthracene | | 0.00175 | 0.00348 | 0.00698 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00175 | 0.00348 | 0.00698 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00175 | 0.00348 | 0.00698 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00175 | 0.00348 | 0.00698 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00175 | 0.00348 | 0.00698 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00175 | 0.00348 | 0.00698 | U |
| 218-01-9 | Chrysene | | 0.00175 | 0.00348 | 0.00698 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00175 | 0.00348 | 0.00698 | U |
| 206-44-0 | Fluoranthene | | 0.00175 | 0.00348 | 0.00698 | U |
| 86-73-7 | Fluorene | | 0.00175 | 0.00348 | 0.00698 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00175 | 0.00348 | 0.00698 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00175 | 0.00348 | 0.00698 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00175 | 0.00348 | 0.00698 | U |
| 91-20-3 | Naphthalene | | 0.00175 | 0.00348 | 0.00698 | U |
| 85-01-8 | Phenanthrene | 0.00386 | 0.00175 | 0.00348 | 0.00698 | IV |
| 129-00-0 | Pyrene | | 0.00175 | 0.00348 | 0.00698 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.418 | 3.539 | 104 | 14 - 129 | |
| Terphenyl-d14 | 3.418 | 3.036 | 88.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-104-0608**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-17 | File ID: | 0802517.D |
| Sampled: | 07/30/11 10:25 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 18:23 |
| Solids: | 83.49 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00199 | 0.00396 | 0.00794 | U |
| 208-96-8 | Acenaphthylene | | 0.00199 | 0.00396 | 0.00794 | U |
| 120-12-7 | Anthracene | | 0.00199 | 0.00396 | 0.00794 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00199 | 0.00396 | 0.00794 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00199 | 0.00396 | 0.00794 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00199 | 0.00396 | 0.00794 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00199 | 0.00396 | 0.00794 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00199 | 0.00396 | 0.00794 | U |
| 218-01-9 | Chrysene | | 0.00199 | 0.00396 | 0.00794 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00199 | 0.00396 | 0.00794 | U |
| 206-44-0 | Fluoranthene | | 0.00199 | 0.00396 | 0.00794 | U |
| 86-73-7 | Fluorene | | 0.00199 | 0.00396 | 0.00794 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00199 | 0.00396 | 0.00794 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00199 | 0.00396 | 0.00794 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00199 | 0.00396 | 0.00794 | U |
| 91-20-3 | Naphthalene | | 0.00199 | 0.00396 | 0.00794 | U |
| 85-01-8 | Phenanthrene | 0.00496 | 0.00199 | 0.00396 | 0.00794 | IV |
| 129-00-0 | Pyrene | | 0.00199 | 0.00396 | 0.00794 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.887 | 4.054 | 104 | 14 - 129 | |
| Terphenyl-d14 | 3.887 | 3.213 | 82.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-105-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-18 | File ID: | 0802518.D |
| Sampled: | 07/30/11 10:30 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 18:52 |
| Solids: | 77.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00209 | 0.00416 | 0.00834 | U |
| 208-96-8 | Acenaphthylene | | 0.00209 | 0.00416 | 0.00834 | U |
| 120-12-7 | Anthracene | | 0.00209 | 0.00416 | 0.00834 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00209 | 0.00416 | 0.00834 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00209 | 0.00416 | 0.00834 | U |
| 205-99-2 | Benzo(b)fluoranthene | 0.00470 | 0.00209 | 0.00416 | 0.00834 | IV |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00209 | 0.00416 | 0.00834 | U |
| 207-08-9 | Benzo(k)fluoranthene | 0.00245 | 0.00209 | 0.00416 | 0.00834 | IV |
| 218-01-9 | Chrysene | | 0.00209 | 0.00416 | 0.00834 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00209 | 0.00416 | 0.00834 | U |
| 206-44-0 | Fluoranthene | 0.00762 | 0.00209 | 0.00416 | 0.00834 | IV |
| 86-73-7 | Fluorene | | 0.00209 | 0.00416 | 0.00834 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00209 | 0.00416 | 0.00834 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00209 | 0.00416 | 0.00834 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00209 | 0.00416 | 0.00834 | U |
| 91-20-3 | Naphthalene | | 0.00209 | 0.00416 | 0.00834 | U |
| 85-01-8 | Phenanthrene | 0.00678 | 0.00209 | 0.00416 | 0.00834 | IV |
| 129-00-0 | Pyrene | 0.00607 | 0.00209 | 0.00416 | 0.00834 | IV |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.085 | 3.253 | 79.6 | 14 - 129 | |
| Terphenyl-d14 | 4.085 | 2.971 | 72.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-105-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-19 | File ID: | 0802519.D |
| Sampled: | 07/30/11 10:35 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 19:21 |
| Solids: | 80.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 208-96-8 | Acenaphthylene | | 0.00205 | 0.00409 | 0.00819 | U |
| 120-12-7 | Anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00205 | 0.00409 | 0.00819 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00205 | 0.00409 | 0.00819 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 218-01-9 | Chrysene | | 0.00205 | 0.00409 | 0.00819 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 206-44-0 | Fluoranthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 86-73-7 | Fluorene | | 0.00205 | 0.00409 | 0.00819 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00205 | 0.00409 | 0.00819 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 91-20-3 | Naphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 85-01-8 | Phenanthrene | 0.00391 | 0.00205 | 0.00409 | 0.00819 | IV |
| 129-00-0 | Pyrene | | 0.00205 | 0.00409 | 0.00819 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.011 | 3.963 | 98.8 | 14 - 129 | |
| Terphenyl-d14 | 4.011 | 3.024 | 75.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-105-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-20 | File ID: | 0802520.D |
| Sampled: | 07/30/11 10:40 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 19:49 |
| Solids: | 84.59 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00195 | 0.00388 | 0.00778 | U |
| 208-96-8 | Acenaphthylene | | 0.00195 | 0.00388 | 0.00778 | U |
| 120-12-7 | Anthracene | | 0.00195 | 0.00388 | 0.00778 | U |
| 56-55-3 | Benzo(a)anthracene | 0.00292 | 0.00195 | 0.00388 | 0.00778 | IV |
| 50-32-8 | Benzo(a)pyrene | | 0.00195 | 0.00388 | 0.00778 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00195 | 0.00388 | 0.00778 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00195 | 0.00388 | 0.00778 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00195 | 0.00388 | 0.00778 | U |
| 218-01-9 | Chrysene | 0.00356 | 0.00195 | 0.00388 | 0.00778 | IV |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00195 | 0.00388 | 0.00778 | U |
| 206-44-0 | Fluoranthene | 0.00873 | 0.00195 | 0.00388 | 0.00778 | V |
| 86-73-7 | Fluorene | | 0.00195 | 0.00388 | 0.00778 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00195 | 0.00388 | 0.00778 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00195 | 0.00388 | 0.00778 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00195 | 0.00388 | 0.00778 | U |
| 91-20-3 | Naphthalene | | 0.00195 | 0.00388 | 0.00778 | U |
| 85-01-8 | Phenanthrene | 0.00941 | 0.00195 | 0.00388 | 0.00778 | V |
| 129-00-0 | Pyrene | 0.00721 | 0.00195 | 0.00388 | 0.00778 | IV |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.811 | 3.586 | 94.1 | 14 - 129 | |
| Terphenyl-d14 | 3.811 | 2.876 | 75.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-105-0406D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-22 | File ID: | 0802522.D |
| Sampled: | 07/30/11 10:40 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 20:47 |
| Solids: | 78.37 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00209 | 0.00417 | 0.00834 | U |
| 208-96-8 | Acenaphthylene | | 0.00209 | 0.00417 | 0.00834 | U |
| 120-12-7 | Anthracene | | 0.00209 | 0.00417 | 0.00834 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00209 | 0.00417 | 0.00834 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00209 | 0.00417 | 0.00834 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00209 | 0.00417 | 0.00834 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00209 | 0.00417 | 0.00834 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00209 | 0.00417 | 0.00834 | U |
| 218-01-9 | Chrysene | | 0.00209 | 0.00417 | 0.00834 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00209 | 0.00417 | 0.00834 | U |
| 206-44-0 | Fluoranthene | 0.00395 | 0.00209 | 0.00417 | 0.00834 | IV |
| 86-73-7 | Fluorene | | 0.00209 | 0.00417 | 0.00834 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00209 | 0.00417 | 0.00834 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00209 | 0.00417 | 0.00834 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00209 | 0.00417 | 0.00834 | U |
| 91-20-3 | Naphthalene | | 0.00209 | 0.00417 | 0.00834 | U |
| 85-01-8 | Phenanthrene | | 0.00209 | 0.00417 | 0.00834 | U |
| 129-00-0 | Pyrene | 0.00280 | 0.00209 | 0.00417 | 0.00834 | IV |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.087 | 4.327 | 106 | 14 - 129 | |
| Terphenyl-d14 | 4.087 | 3.455 | 84.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-105-0608**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-21 | File ID: | 0802521.D |
| Sampled: | 07/30/11 10:45 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 20:18 |
| Solids: | 84.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00190 | 0.00380 | 0.00760 | U |
| 208-96-8 | Acenaphthylene | | 0.00190 | 0.00380 | 0.00760 | U |
| 120-12-7 | Anthracene | | 0.00190 | 0.00380 | 0.00760 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00190 | 0.00380 | 0.00760 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00190 | 0.00380 | 0.00760 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00190 | 0.00380 | 0.00760 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00190 | 0.00380 | 0.00760 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00190 | 0.00380 | 0.00760 | U |
| 218-01-9 | Chrysene | | 0.00190 | 0.00380 | 0.00760 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00190 | 0.00380 | 0.00760 | U |
| 206-44-0 | Fluoranthene | | 0.00190 | 0.00380 | 0.00760 | U |
| 86-73-7 | Fluorene | | 0.00190 | 0.00380 | 0.00760 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00190 | 0.00380 | 0.00760 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00190 | 0.00380 | 0.00760 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00190 | 0.00380 | 0.00760 | U |
| 91-20-3 | Naphthalene | | 0.00190 | 0.00380 | 0.00760 | U |
| 85-01-8 | Phenanthrene | 0.00394 | 0.00190 | 0.00380 | 0.00760 | IV |
| 129-00-0 | Pyrene | 0.00206 | 0.00190 | 0.00380 | 0.00760 | IV |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.724 | 3.362 | 90.3 | 14 - 129 | |
| Terphenyl-d14 | 3.724 | 2.959 | 79.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-106-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-23 | File ID: | 0802523.D |
| Sampled: | 07/30/11 10:50 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/17/11 21:15 |
| Solids: | 82.12 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00198 | 0.00395 | 0.00791 | U |
| 208-96-8 | Acenaphthylene | | 0.00198 | 0.00395 | 0.00791 | U |
| 120-12-7 | Anthracene | | 0.00198 | 0.00395 | 0.00791 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00198 | 0.00395 | 0.00791 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00198 | 0.00395 | 0.00791 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00198 | 0.00395 | 0.00791 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00198 | 0.00395 | 0.00791 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00198 | 0.00395 | 0.00791 | U |
| 218-01-9 | Chrysene | | 0.00198 | 0.00395 | 0.00791 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00198 | 0.00395 | 0.00791 | U |
| 206-44-0 | Fluoranthene | | 0.00198 | 0.00395 | 0.00791 | U |
| 86-73-7 | Fluorene | | 0.00198 | 0.00395 | 0.00791 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00198 | 0.00395 | 0.00791 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00198 | 0.00395 | 0.00791 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00198 | 0.00395 | 0.00791 | U |
| 91-20-3 | Naphthalene | | 0.00198 | 0.00395 | 0.00791 | U |
| 85-01-8 | Phenanthrene | 0.00314 | 0.00198 | 0.00395 | 0.00791 | IV |
| 129-00-0 | Pyrene | | 0.00198 | 0.00395 | 0.00791 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.875 | 3.240 | 83.6 | 14 - 129 | |
| Terphenyl-d14 | 3.875 | 3.101 | 80.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-106-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-24 | File ID: | 0802524.D |
| Sampled: | 07/30/11 10:55 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 15:37 |
| Solids: | 89.50 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00181 | 0.00360 | 0.00721 | U |
| 208-96-8 | Acenaphthylene | | 0.00181 | 0.00360 | 0.00721 | U |
| 120-12-7 | Anthracene | | 0.00181 | 0.00360 | 0.00721 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00181 | 0.00360 | 0.00721 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00181 | 0.00360 | 0.00721 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00181 | 0.00360 | 0.00721 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00181 | 0.00360 | 0.00721 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00181 | 0.00360 | 0.00721 | U |
| 218-01-9 | Chrysene | | 0.00181 | 0.00360 | 0.00721 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00181 | 0.00360 | 0.00721 | U |
| 206-44-0 | Fluoranthene | | 0.00181 | 0.00360 | 0.00721 | U |
| 86-73-7 | Fluorene | | 0.00181 | 0.00360 | 0.00721 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00181 | 0.00360 | 0.00721 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00181 | 0.00360 | 0.00721 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00181 | 0.00360 | 0.00721 | U |
| 91-20-3 | Naphthalene | | 0.00181 | 0.00360 | 0.00721 | U |
| 85-01-8 | Phenanthrene | 0.00241 | 0.00181 | 0.00360 | 0.00721 | IV |
| 129-00-0 | Pyrene | | 0.00181 | 0.00360 | 0.00721 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.532 | 3.244 | 91.8 | 14 - 129 | |
| Terphenyl-d14 | 3.532 | 3.126 | 88.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-106-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-25 | File ID: | 0802525.D |
| Sampled: | 07/30/11 11:00 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 16:06 |
| Solids: | 88.43 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00180 | 0.00360 | 0.00721 | U |
| 208-96-8 | Acenaphthylene | | 0.00180 | 0.00360 | 0.00721 | U |
| 120-12-7 | Anthracene | | 0.00180 | 0.00360 | 0.00721 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00180 | 0.00360 | 0.00721 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00180 | 0.00360 | 0.00721 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00180 | 0.00360 | 0.00721 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00180 | 0.00360 | 0.00721 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00180 | 0.00360 | 0.00721 | U |
| 218-01-9 | Chrysene | | 0.00180 | 0.00360 | 0.00721 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00180 | 0.00360 | 0.00721 | U |
| 206-44-0 | Fluoranthene | | 0.00180 | 0.00360 | 0.00721 | U |
| 86-73-7 | Fluorene | | 0.00180 | 0.00360 | 0.00721 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00180 | 0.00360 | 0.00721 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00180 | 0.00360 | 0.00721 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00180 | 0.00360 | 0.00721 | U |
| 91-20-3 | Naphthalene | | 0.00180 | 0.00360 | 0.00721 | U |
| 85-01-8 | Phenanthrene | 0.00191 | 0.00180 | 0.00360 | 0.00721 | IV |
| 129-00-0 | Pyrene | | 0.00180 | 0.00360 | 0.00721 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.529 | 3.216 | 91.1 | 14 - 129 | |
| Terphenyl-d14 | 3.529 | 2.860 | 81.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-106-0608**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-26 | File ID: | 0802526.D |
| Sampled: | 07/30/11 11:05 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 16:35 |
| Solids: | 90.78 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00182 | 0.00362 | 0.00725 | U |
| 208-96-8 | Acenaphthylene | | 0.00182 | 0.00362 | 0.00725 | U |
| 120-12-7 | Anthracene | | 0.00182 | 0.00362 | 0.00725 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00182 | 0.00362 | 0.00725 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00182 | 0.00362 | 0.00725 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00182 | 0.00362 | 0.00725 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00182 | 0.00362 | 0.00725 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00182 | 0.00362 | 0.00725 | U |
| 218-01-9 | Chrysene | | 0.00182 | 0.00362 | 0.00725 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00182 | 0.00362 | 0.00725 | U |
| 206-44-0 | Fluoranthene | | 0.00182 | 0.00362 | 0.00725 | U |
| 86-73-7 | Fluorene | | 0.00182 | 0.00362 | 0.00725 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00182 | 0.00362 | 0.00725 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00182 | 0.00362 | 0.00725 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00182 | 0.00362 | 0.00725 | U |
| 91-20-3 | Naphthalene | | 0.00182 | 0.00362 | 0.00725 | U |
| 85-01-8 | Phenanthrene | 0.00213 | 0.00182 | 0.00362 | 0.00725 | IV |
| 129-00-0 | Pyrene | | 0.00182 | 0.00362 | 0.00725 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.551 | 3.569 | 100 | 14 - 129 | |
| Terphenyl-d14 | 3.551 | 3.318 | 93.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-107-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-27 | File ID: | 0802527.D |
| Sampled: | 07/30/11 11:10 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 17:03 |
| Solids: | 84.98 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00195 | 0.00389 | 0.00780 | U |
| 208-96-8 | Acenaphthylene | | 0.00195 | 0.00389 | 0.00780 | U |
| 120-12-7 | Anthracene | | 0.00195 | 0.00389 | 0.00780 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00195 | 0.00389 | 0.00780 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00195 | 0.00389 | 0.00780 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00195 | 0.00389 | 0.00780 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00195 | 0.00389 | 0.00780 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00195 | 0.00389 | 0.00780 | U |
| 218-01-9 | Chrysene | 0.00732 | 0.00195 | 0.00389 | 0.00780 | IV |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00195 | 0.00389 | 0.00780 | U |
| 206-44-0 | Fluoranthene | | 0.00195 | 0.00389 | 0.00780 | U |
| 86-73-7 | Fluorene | | 0.00195 | 0.00389 | 0.00780 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00195 | 0.00389 | 0.00780 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00195 | 0.00389 | 0.00780 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00195 | 0.00389 | 0.00780 | U |
| 91-20-3 | Naphthalene | | 0.00195 | 0.00389 | 0.00780 | U |
| 85-01-8 | Phenanthrene | 0.00411 | 0.00195 | 0.00389 | 0.00780 | IV |
| 129-00-0 | Pyrene | | 0.00195 | 0.00389 | 0.00780 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.819 | 3.125 | 81.8 | 14 - 129 | |
| Terphenyl-d14 | 3.819 | 2.501 | 65.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-107-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-28 | File ID: | 0802528.D |
| Sampled: | 07/30/11 11:15 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 17:32 |
| Solids: | 81.63 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00202 | 0.00403 | 0.00806 | U |
| 208-96-8 | Acenaphthylene | | 0.00202 | 0.00403 | 0.00806 | U |
| 120-12-7 | Anthracene | | 0.00202 | 0.00403 | 0.00806 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00202 | 0.00403 | 0.00806 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00202 | 0.00403 | 0.00806 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00202 | 0.00403 | 0.00806 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00202 | 0.00403 | 0.00806 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00202 | 0.00403 | 0.00806 | U |
| 218-01-9 | Chrysene | | 0.00202 | 0.00403 | 0.00806 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00202 | 0.00403 | 0.00806 | U |
| 206-44-0 | Fluoranthene | | 0.00202 | 0.00403 | 0.00806 | U |
| 86-73-7 | Fluorene | | 0.00202 | 0.00403 | 0.00806 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00202 | 0.00403 | 0.00806 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00202 | 0.00403 | 0.00806 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00202 | 0.00403 | 0.00806 | U |
| 91-20-3 | Naphthalene | | 0.00202 | 0.00403 | 0.00806 | U |
| 85-01-8 | Phenanthrene | 0.00385 | 0.00202 | 0.00403 | 0.00806 | IV |
| 129-00-0 | Pyrene | | 0.00202 | 0.00403 | 0.00806 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.949 | 3.565 | 90.3 | 14 - 129 | |
| Terphenyl-d14 | 3.949 | 3.182 | 80.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-107-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-29 | File ID: | 0802529.D |
| Sampled: | 07/30/11 11:20 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 18:00 |
| Solids: | 86.00 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00193 | 0.00385 | 0.00770 | U |
| 208-96-8 | Acenaphthylene | | 0.00193 | 0.00385 | 0.00770 | U |
| 120-12-7 | Anthracene | | 0.00193 | 0.00385 | 0.00770 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00193 | 0.00385 | 0.00770 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00193 | 0.00385 | 0.00770 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00193 | 0.00385 | 0.00770 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00193 | 0.00385 | 0.00770 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00193 | 0.00385 | 0.00770 | U |
| 218-01-9 | Chrysene | | 0.00193 | 0.00385 | 0.00770 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00193 | 0.00385 | 0.00770 | U |
| 206-44-0 | Fluoranthene | | 0.00193 | 0.00385 | 0.00770 | U |
| 86-73-7 | Fluorene | | 0.00193 | 0.00385 | 0.00770 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00193 | 0.00385 | 0.00770 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00193 | 0.00385 | 0.00770 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00193 | 0.00385 | 0.00770 | U |
| 91-20-3 | Naphthalene | | 0.00193 | 0.00385 | 0.00770 | U |
| 85-01-8 | Phenanthrene | 0.00252 | 0.00193 | 0.00385 | 0.00770 | IV |
| 129-00-0 | Pyrene | | 0.00193 | 0.00385 | 0.00770 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.773 | 3.540 | 93.8 | 14 - 129 | |
| Terphenyl-d14 | 3.773 | 3.278 | 86.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-107-0608**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-30 | File ID: | 0802530.D |
| Sampled: | 07/30/11 11:25 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 18:28 |
| Solids: | 81.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00196 | 0.00391 | 0.00783 | U |
| 208-96-8 | Acenaphthylene | | 0.00196 | 0.00391 | 0.00783 | U |
| 120-12-7 | Anthracene | | 0.00196 | 0.00391 | 0.00783 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00196 | 0.00391 | 0.00783 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00196 | 0.00391 | 0.00783 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00196 | 0.00391 | 0.00783 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00196 | 0.00391 | 0.00783 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00196 | 0.00391 | 0.00783 | U |
| 218-01-9 | Chrysene | | 0.00196 | 0.00391 | 0.00783 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00196 | 0.00391 | 0.00783 | U |
| 206-44-0 | Fluoranthene | 0.00216 | 0.00196 | 0.00391 | 0.00783 | IV |
| 86-73-7 | Fluorene | | 0.00196 | 0.00391 | 0.00783 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00196 | 0.00391 | 0.00783 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00196 | 0.00391 | 0.00783 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00196 | 0.00391 | 0.00783 | U |
| 91-20-3 | Naphthalene | | 0.00196 | 0.00391 | 0.00783 | U |
| 85-01-8 | Phenanthrene | 0.00393 | 0.00196 | 0.00391 | 0.00783 | IV |
| 129-00-0 | Pyrene | | 0.00196 | 0.00391 | 0.00783 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.835 | 3.767 | 98.2 | 14 - 129 | |
| Terphenyl-d14 | 3.835 | 3.231 | 84.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-108-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-31 | File ID: | 0802531.D |
| Sampled: | 07/30/11 11:45 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 18:55 |
| Solids: | 80.83 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00205 | 0.00409 | 0.00820 | U |
| 208-96-8 | Acenaphthylene | | 0.00205 | 0.00409 | 0.00820 | U |
| 120-12-7 | Anthracene | | 0.00205 | 0.00409 | 0.00820 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00205 | 0.00409 | 0.00820 | U |
| 50-32-8 | Benzo(a)pyrene | 0.00370 | 0.00205 | 0.00409 | 0.00820 | IV |
| 205-99-2 | Benzo(b)fluoranthene | 0.00330 | 0.00205 | 0.00409 | 0.00820 | IV |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00205 | 0.00409 | 0.00820 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00205 | 0.00409 | 0.00820 | U |
| 218-01-9 | Chrysene | | 0.00205 | 0.00409 | 0.00820 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00205 | 0.00409 | 0.00820 | U |
| 206-44-0 | Fluoranthene | 0.00286 | 0.00205 | 0.00409 | 0.00820 | IV |
| 86-73-7 | Fluorene | | 0.00205 | 0.00409 | 0.00820 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00205 | 0.00409 | 0.00820 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00205 | 0.00409 | 0.00820 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00205 | 0.00409 | 0.00820 | U |
| 91-20-3 | Naphthalene | | 0.00205 | 0.00409 | 0.00820 | U |
| 85-01-8 | Phenanthrene | 0.00474 | 0.00205 | 0.00409 | 0.00820 | IV |
| 129-00-0 | Pyrene | 0.00254 | 0.00205 | 0.00409 | 0.00820 | IV |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.015 | 3.531 | 88.0 | 14 - 129 | |
| Terphenyl-d14 | 4.015 | 3.327 | 82.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-108-0002D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-32 | File ID: | 0802532.D |
| Sampled: | 07/30/11 11:45 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 19:23 |
| Solids: | 81.12 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00195 | 0.00390 | 0.00781 | U |
| 208-96-8 | Acenaphthylene | 0.00269 | 0.00195 | 0.00390 | 0.00781 | 1 |
| 120-12-7 | Anthracene | | 0.00195 | 0.00390 | 0.00781 | U |
| 56-55-3 | Benzo(a)anthracene | 0.00680 | 0.00195 | 0.00390 | 0.00781 | IV |
| 50-32-8 | Benzo(a)pyrene | 0.0124 | 0.00195 | 0.00390 | 0.00781 | V |
| 205-99-2 | Benzo(b)fluoranthene | 0.0156 | 0.00195 | 0.00390 | 0.00781 | V |
| 191-24-2 | Benzo(g,h,i)perylene | 0.00961 | 0.00195 | 0.00390 | 0.00781 | |
| 207-08-9 | Benzo(k)fluoranthene | 0.00533 | 0.00195 | 0.00390 | 0.00781 | IV |
| 218-01-9 | Chrysene | 0.00862 | 0.00195 | 0.00390 | 0.00781 | V |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00195 | 0.00390 | 0.00781 | U |
| 206-44-0 | Fluoranthene | 0.0107 | 0.00195 | 0.00390 | 0.00781 | V |
| 86-73-7 | Fluorene | | 0.00195 | 0.00390 | 0.00781 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00195 | 0.00390 | 0.00781 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00195 | 0.00390 | 0.00781 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00195 | 0.00390 | 0.00781 | U |
| 91-20-3 | Naphthalene | | 0.00195 | 0.00390 | 0.00781 | U |
| 85-01-8 | Phenanthrene | 0.00716 | 0.00195 | 0.00390 | 0.00781 | IV |
| 129-00-0 | Pyrene | 0.0107 | 0.00195 | 0.00390 | 0.00781 | V |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.823 | 3.395 | 88.8 | 14 - 129 | |
| Terphenyl-d14 | 3.823 | 3.105 | 81.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-108-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-33 | File ID: | 0802533.D |
| Sampled: | 07/30/11 11:50 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 19:51 |
| Solids: | 79.75 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00198 | 0.00394 | 0.00789 | U |
| 208-96-8 | Acenaphthylene | | 0.00198 | 0.00394 | 0.00789 | U |
| 120-12-7 | Anthracene | | 0.00198 | 0.00394 | 0.00789 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00198 | 0.00394 | 0.00789 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00198 | 0.00394 | 0.00789 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00198 | 0.00394 | 0.00789 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00198 | 0.00394 | 0.00789 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00198 | 0.00394 | 0.00789 | U |
| 218-01-9 | Chrysene | | 0.00198 | 0.00394 | 0.00789 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00198 | 0.00394 | 0.00789 | U |
| 206-44-0 | Fluoranthene | | 0.00198 | 0.00394 | 0.00789 | U |
| 86-73-7 | Fluorene | | 0.00198 | 0.00394 | 0.00789 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00198 | 0.00394 | 0.00789 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00198 | 0.00394 | 0.00789 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00198 | 0.00394 | 0.00789 | U |
| 91-20-3 | Naphthalene | | 0.00198 | 0.00394 | 0.00789 | U |
| 85-01-8 | Phenanthrene | 0.00207 | 0.00198 | 0.00394 | 0.00789 | IV |
| 129-00-0 | Pyrene | | 0.00198 | 0.00394 | 0.00789 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.864 | 3.089 | 79.9 | 14 - 129 | |
| Terphenyl-d14 | 3.864 | 2.667 | 69.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-108-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-34 | File ID: | 0802534.D |
| Sampled: | 07/30/11 11:55 | Prepared: | 08/04/11 15:54 | Analyzed: | 08/18/11 20:19 |
| Solids: | 79.84 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03010 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 208-96-8 | Acenaphthylene | | 0.00205 | 0.00409 | 0.00819 | U |
| 120-12-7 | Anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00205 | 0.00409 | 0.00819 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 0.00588 | 0.00205 | 0.00409 | 0.00819 | I |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 218-01-9 | Chrysene | | 0.00205 | 0.00409 | 0.00819 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00205 | 0.00409 | 0.00819 | U |
| 206-44-0 | Fluoranthene | | 0.00205 | 0.00409 | 0.00819 | U |
| 86-73-7 | Fluorene | | 0.00205 | 0.00409 | 0.00819 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00205 | 0.00409 | 0.00819 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 91-20-3 | Naphthalene | | 0.00205 | 0.00409 | 0.00819 | U |
| 85-01-8 | Phenanthrene | 0.00301 | 0.00205 | 0.00409 | 0.00819 | IV |
| 129-00-0 | Pyrene | | 0.00205 | 0.00409 | 0.00819 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.011 | 3.857 | 96.2 | 14 - 129 | |
| Terphenyl-d14 | 4.011 | 3.265 | 81.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-108-0608**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-35 | File ID: | 0802535.D |
| Sampled: | 07/30/11 12:00 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/18/11 20:47 |
| Solids: | 77.39 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.00709 | 0.00214 | 0.00427 | 0.00856 | I |
| 208-96-8 | Acenaphthylene | 0.00482 | 0.00214 | 0.00427 | 0.00856 | I |
| 120-12-7 | Anthracene | 0.00920 | 0.00214 | 0.00427 | 0.00856 | |
| 56-55-3 | Benzo(a)anthracene | | 0.00214 | 0.00427 | 0.00856 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00214 | 0.00427 | 0.00856 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00214 | 0.00427 | 0.00856 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00214 | 0.00427 | 0.00856 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00214 | 0.00427 | 0.00856 | U |
| 218-01-9 | Chrysene | | 0.00214 | 0.00427 | 0.00856 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00214 | 0.00427 | 0.00856 | U |
| 206-44-0 | Fluoranthene | 0.00642 | 0.00214 | 0.00427 | 0.00856 | I |
| 86-73-7 | Fluorene | 0.0113 | 0.00214 | 0.00427 | 0.00856 | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00214 | 0.00427 | 0.00856 | U |
| 90-12-0 | 1-Methylnaphthalene | 0.00255 | 0.00214 | 0.00427 | 0.00856 | I |
| 91-57-6 | 2-Methylnaphthalene | 0.00362 | 0.00214 | 0.00427 | 0.00856 | 1 |
| 91-20-3 | Naphthalene | | 0.00214 | 0.00427 | 0.00856 | U |
| 85-01-8 | Phenanthrene | 0.0128 | 0.00214 | 0.00427 | 0.00856 | |
| 129-00-0 | Pyrene | 0.00482 | 0.00214 | 0.00427 | 0.00856 | 1 |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.193 | 3.890 | 92.8 | 14 - 129 | |
| Terphenyl-d14 | 4.193 | 3.375 | 80.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-109-0002

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-36 | File ID: | 0802536.D |
| Sampled: | 07/30/11 12:05 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/18/11 21:14 |
| Solids: | 85.67 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00192 | 0.00384 | 0.00768 | U |
| 208-96-8 | Acenaphthylene | | 0.00192 | 0.00384 | 0.00768 | U |
| 120-12-7 | Anthracene | 0.00194 | 0.00192 | 0.00384 | 0.00768 | I |
| 56-55-3 | Benzo(a)anthracene | 0.00391 | 0.00192 | 0.00384 | 0.00768 | I |
| 50-32-8 | Benzo(a)pyrene | 0.00632 | 0.00192 | 0.00384 | 0.00768 | I |
| 205-99-2 | Benzo(b)fluoranthene | 0.0105 | 0.00192 | 0.00384 | 0.00768 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.00949 | 0.00192 | 0.00384 | 0.00768 | |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00192 | 0.00384 | 0.00768 | U |
| 218-01-9 | Chrysene | 0.00519 | 0.00192 | 0.00384 | 0.00768 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00192 | 0.00384 | 0.00768 | U |
| 206-44-0 | Fluoranthene | 0.00265 | 0.00192 | 0.00384 | 0.00768 | I |
| 86-73-7 | Fluorene | | 0.00192 | 0.00384 | 0.00768 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00989 | 0.00192 | 0.00384 | 0.00768 | |
| 90-12-0 | 1-Methylnaphthalene | | 0.00192 | 0.00384 | 0.00768 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00192 | 0.00384 | 0.00768 | U |
| 91-20-3 | Naphthalene | | 0.00192 | 0.00384 | 0.00768 | U |
| 85-01-8 | Phenanthrene | 0.00528 | 0.00192 | 0.00384 | 0.00768 | I |
| 129-00-0 | Pyrene | 0.00412 | 0.00192 | 0.00384 | 0.00768 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.763 | 3.325 | 88.4 | 14 - 129 | |
| Terphenyl-d14 | 3.763 | 3.129 | 83.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-109-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-37 | File ID: | 0802537.D |
| Sampled: | 07/30/11 12:10 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/18/11 21:42 |
| Solids: | 79.90 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00204 | 0.00406 | 0.00813 | U |
| 208-96-8 | Acenaphthylene | 0.00383 | 0.00204 | 0.00406 | 0.00813 | I |
| 120-12-7 | Anthracene | 0.00211 | 0.00204 | 0.00406 | 0.00813 | I |
| 56-55-3 | Benzo(a)anthracene | 0.00663 | 0.00204 | 0.00406 | 0.00813 | I |
| 50-32-8 | Benzo(a)pyrene | 0.0112 | 0.00204 | 0.00406 | 0.00813 | |
| 205-99-2 | Benzo(b)fluoranthene | 0.0149 | 0.00204 | 0.00406 | 0.00813 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.0148 | 0.00204 | 0.00406 | 0.00813 | |
| 207-08-9 | Benzo(k)fluoranthene | 0.00779 | 0.00204 | 0.00406 | 0.00813 | I |
| 218-01-9 | Chrysene | 0.00796 | 0.00204 | 0.00406 | 0.00813 | I |
| 53-70-3 | Dibenz(a,h)anthracene | 0.00581 | 0.00204 | 0.00406 | 0.00813 | I |
| 206-44-0 | Fluoranthene | 0.00714 | 0.00204 | 0.00406 | 0.00813 | I |
| 86-73-7 | Fluorene | | 0.00204 | 0.00406 | 0.00813 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.0116 | 0.00204 | 0.00406 | 0.00813 | |
| 90-12-0 | 1-Methylnaphthalene | | 0.00204 | 0.00406 | 0.00813 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00204 | 0.00406 | 0.00813 | U |
| 91-20-3 | Naphthalene | | 0.00204 | 0.00406 | 0.00813 | U |
| 85-01-8 | Phenanthrene | 0.00516 | 0.00204 | 0.00406 | 0.00813 | I |
| 129-00-0 | Pyrene | 0.00847 | 0.00204 | 0.00406 | 0.00813 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.982 | 3.649 | 91.6 | 14 - 129 | |
| Terphenyl-d14 | 3.982 | 3.384 | 85.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-109-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-38 | File ID: | 0802538.D |
| Sampled: | 07/30/11 12:15 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/18/11 22:09 |
| Solids: | 82.70 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00197 | 0.00392 | 0.00786 | U |
| 208-96-8 | Acenaphthylene | | 0.00197 | 0.00392 | 0.00786 | U |
| 120-12-7 | Anthracene | | 0.00197 | 0.00392 | 0.00786 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00197 | 0.00392 | 0.00786 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00197 | 0.00392 | 0.00786 | U |
| 205-99-2 | Benzo(b)fluoranthene | 0.00227 | 0.00197 | 0.00392 | 0.00786 | I |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00197 | 0.00392 | 0.00786 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00197 | 0.00392 | 0.00786 | U |
| 218-01-9 | Chrysene | | 0.00197 | 0.00392 | 0.00786 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00197 | 0.00392 | 0.00786 | U |
| 206-44-0 | Fluoranthene | | 0.00197 | 0.00392 | 0.00786 | U |
| 86-73-7 | Fluorene | | 0.00197 | 0.00392 | 0.00786 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00197 | 0.00392 | 0.00786 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00197 | 0.00392 | 0.00786 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00197 | 0.00392 | 0.00786 | U |
| 91-20-3 | Naphthalene | | 0.00197 | 0.00392 | 0.00786 | U |
| 85-01-8 | Phenanthrene | 0.00296 | 0.00197 | 0.00392 | 0.00786 | I |
| 129-00-0 | Pyrene | | 0.00197 | 0.00392 | 0.00786 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.848 | 3.660 | 95.1 | 14 - 129 | |
| Terphenyl-d14 | 3.848 | 3.013 | 78.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-109-0608

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-39 | File ID: | 0802539.D |
| Sampled: | 07/30/11 12:20 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/18/11 22:37 |
| Solids: | 94.83 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00170 | 0.00340 | 0.00681 | U |
| 208-96-8 | Acenaphthylene | | 0.00170 | 0.00340 | 0.00681 | U |
| 120-12-7 | Anthracene | | 0.00170 | 0.00340 | 0.00681 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00170 | 0.00340 | 0.00681 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00170 | 0.00340 | 0.00681 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00170 | 0.00340 | 0.00681 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00170 | 0.00340 | 0.00681 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00170 | 0.00340 | 0.00681 | U |
| 218-01-9 | Chrysene | | 0.00170 | 0.00340 | 0.00681 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00170 | 0.00340 | 0.00681 | U |
| 206-44-0 | Fluoranthene | | 0.00170 | 0.00340 | 0.00681 | U |
| 86-73-7 | Fluorene | | 0.00170 | 0.00340 | 0.00681 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00170 | 0.00340 | 0.00681 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00170 | 0.00340 | 0.00681 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00170 | 0.00340 | 0.00681 | U |
| 91-20-3 | Naphthalene | | 0.00170 | 0.00340 | 0.00681 | U |
| 85-01-8 | Phenanthrene | 0.00249 | 0.00170 | 0.00340 | 0.00681 | I |
| 129-00-0 | Pyrene | | 0.00170 | 0.00340 | 0.00681 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.334 | 3.461 | 104 | 14 - 129 | |
| Terphenyl-d14 | 3.334 | 3.021 | 90.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-110-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-40 | File ID: | 0802540.D |
| Sampled: | 07/30/11 12:25 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/18/11 23:05 |
| Solids: | 86.82 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00184 | 0.00366 | 0.00734 | U |
| 208-96-8 | Acenaphthylene | | 0.00184 | 0.00366 | 0.00734 | U |
| 120-12-7 | Anthracene | | 0.00184 | 0.00366 | 0.00734 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00184 | 0.00366 | 0.00734 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00184 | 0.00366 | 0.00734 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00184 | 0.00366 | 0.00734 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00184 | 0.00366 | 0.00734 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00184 | 0.00366 | 0.00734 | U |
| 218-01-9 | Chrysene | | 0.00184 | 0.00366 | 0.00734 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00184 | 0.00366 | 0.00734 | U |
| 206-44-0 | Fluoranthene | | 0.00184 | 0.00366 | 0.00734 | U |
| 86-73-7 | Fluorene | | 0.00184 | 0.00366 | 0.00734 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00184 | 0.00366 | 0.00734 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00184 | 0.00366 | 0.00734 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00184 | 0.00366 | 0.00734 | U |
| 91-20-3 | Naphthalene | | 0.00184 | 0.00366 | 0.00734 | U |
| 85-01-8 | Phenanthrene | 0.00361 | 0.00184 | 0.00366 | 0.00734 | I |
| 129-00-0 | Pyrene | | 0.00184 | 0.00366 | 0.00734 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.595 | 3.487 | 97.0 | 14 - 129 | |
| Terphenyl-d14 | 3.595 | 3.138 | 87.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-110-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-41 | File ID: | 0802541.D |
| Sampled: | 07/30/11 12:30 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/18/11 23:33 |
| Solids: | 86.29 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00186 | 0.00371 | 0.00743 | U |
| 208-96-8 | Acenaphthylene | | 0.00186 | 0.00371 | 0.00743 | U |
| 120-12-7 | Anthracene | | 0.00186 | 0.00371 | 0.00743 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00186 | 0.00371 | 0.00743 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00186 | 0.00371 | 0.00743 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00186 | 0.00371 | 0.00743 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00186 | 0.00371 | 0.00743 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00186 | 0.00371 | 0.00743 | U |
| 218-01-9 | Chrysene | | 0.00186 | 0.00371 | 0.00743 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00186 | 0.00371 | 0.00743 | U |
| 206-44-0 | Fluoranthene | | 0.00186 | 0.00371 | 0.00743 | U |
| 86-73-7 | Fluorene | | 0.00186 | 0.00371 | 0.00743 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00186 | 0.00371 | 0.00743 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00186 | 0.00371 | 0.00743 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00186 | 0.00371 | 0.00743 | U |
| 91-20-3 | Naphthalene | | 0.00186 | 0.00371 | 0.00743 | U |
| 85-01-8 | Phenanthrene | 0.00425 | 0.00186 | 0.00371 | 0.00743 | 1 |
| 129-00-0 | Pyrene | | 0.00186 | 0.00371 | 0.00743 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.640 | 3.498 | 96.1 | 14 - 129 | |
| Terphenyl-d14 | 3.640 | 3.178 | 87.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-110-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-42 | File ID: | 0802542.D |
| Sampled: | 07/30/11 12:35 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/19/11 00:01 |
| Solids: | 85.63 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00194 | 0.00386 | 0.00774 | U |
| 208-96-8 | Acenaphthylene | | 0.00194 | 0.00386 | 0.00774 | U |
| 120-12-7 | Anthracene | | 0.00194 | 0.00386 | 0.00774 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00194 | 0.00386 | 0.00774 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00194 | 0.00386 | 0.00774 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00194 | 0.00386 | 0.00774 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00194 | 0.00386 | 0.00774 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00194 | 0.00386 | 0.00774 | U |
| 218-01-9 | Chrysene | | 0.00194 | 0.00386 | 0.00774 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00194 | 0.00386 | 0.00774 | U |
| 206-44-0 | Fluoranthene | 0.00243 | 0.00194 | 0.00386 | 0.00774 | I |
| 86-73-7 | Fluorene | | 0.00194 | 0.00386 | 0.00774 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00194 | 0.00386 | 0.00774 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00194 | 0.00386 | 0.00774 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00194 | 0.00386 | 0.00774 | U |
| 91-20-3 | Naphthalene | | 0.00194 | 0.00386 | 0.00774 | U |
| 85-01-8 | Phenanthrene | 0.00446 | 0.00194 | 0.00386 | 0.00774 | I |
| 129-00-0 | Pyrene | | 0.00194 | 0.00386 | 0.00774 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.790 | 3.606 | 95.1 | 14 - 129 | |
| Terphenyl-d14 | 3.790 | 3.477 | 91.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-110-0406D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-49 | File ID: | 0802549.D |
| Sampled: | 07/30/11 12:35 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/19/11 13:58 |
| Solids: | 84.81 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23109 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00196 | 0.00390 | 0.00781 | U |
| 208-96-8 | Acenaphthylene | | 0.00196 | 0.00390 | 0.00781 | U |
| 120-12-7 | Anthracene | | 0.00196 | 0.00390 | 0.00781 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00196 | 0.00390 | 0.00781 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00196 | 0.00390 | 0.00781 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00196 | 0.00390 | 0.00781 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00196 | 0.00390 | 0.00781 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00196 | 0.00390 | 0.00781 | U |
| 218-01-9 | Chrysene | | 0.00196 | 0.00390 | 0.00781 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00196 | 0.00390 | 0.00781 | U |
| 206-44-0 | Fluoranthene | | 0.00196 | 0.00390 | 0.00781 | U |
| 86-73-7 | Fluorene | | 0.00196 | 0.00390 | 0.00781 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00196 | 0.00390 | 0.00781 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00196 | 0.00390 | 0.00781 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00196 | 0.00390 | 0.00781 | U |
| 91-20-3 | Naphthalene | | 0.00196 | 0.00390 | 0.00781 | U |
| 85-01-8 | Phenanthrene | 0.00349 | 0.00196 | 0.00390 | 0.00781 | I |
| 129-00-0 | Pyrene | | 0.00196 | 0.00390 | 0.00781 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.826 | 3.543 | 92.6 | 14 - 129 | |
| Terphenyl-d14 | 3.826 | 3.840 | 100 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-110-0608**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-43 | File ID: | 0802543.D |
| Sampled: | 07/30/11 12:40 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/19/11 00:29 |
| Solids: | 73.06 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00217 | 0.00433 | 0.00867 | U |
| 208-96-8 | Acenaphthylene | | 0.00217 | 0.00433 | 0.00867 | U |
| 120-12-7 | Anthracene | | 0.00217 | 0.00433 | 0.00867 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00217 | 0.00433 | 0.00867 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00217 | 0.00433 | 0.00867 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00217 | 0.00433 | 0.00867 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00217 | 0.00433 | 0.00867 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00217 | 0.00433 | 0.00867 | U |
| 218-01-9 | Chrysene | | 0.00217 | 0.00433 | 0.00867 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00217 | 0.00433 | 0.00867 | U |
| 206-44-0 | Fluoranthene | | 0.00217 | 0.00433 | 0.00867 | U |
| 86-73-7 | Fluorene | | 0.00217 | 0.00433 | 0.00867 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00217 | 0.00433 | 0.00867 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00217 | 0.00433 | 0.00867 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00217 | 0.00433 | 0.00867 | U |
| 91-20-3 | Naphthalene | | 0.00217 | 0.00433 | 0.00867 | U |
| 85-01-8 | Phenanthrene | 0.00591 | 0.00217 | 0.00433 | 0.00867 | I |
| 129-00-0 | Pyrene | | 0.00217 | 0.00433 | 0.00867 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.245 | 4.432 | 104 | 14 - 129 | |
| Terphenyl-d14 | 4.245 | 3.728 | 87.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SS-111-0002

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-44 | File ID: | 0802544.D |
| Sampled: | 07/30/11 12:45 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/19/11 17:18 |
| Solids: | 86.72 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23109 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.00226 | 0.00188 | 0.00374 | 0.00749 | I |
| 208-96-8 | Acenaphthylene | 0.0618 | 0.00188 | 0.00374 | 0.00749 | |
| 120-12-7 | Anthracene | 0.0143 | 0.00188 | 0.00374 | 0.00749 | |
| 56-55-3 | Benzo(a)anthracene | 0.105 | 0.00188 | 0.00374 | 0.00749 | |
| 50-32-8 | Benzo(a)pyrene | 0.195 | 0.00188 | 0.00374 | 0.00749 | |
| 205-99-2 | Benzo(b)fluoranthene | 0.255 | 0.00188 | 0.00374 | 0.00749 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.193 | 0.00188 | 0.00374 | 0.00749 | |
| 207-08-9 | Benzo(k)fluoranthene | 0.0876 | 0.00188 | 0.00374 | 0.00749 | |
| 218-01-9 | Chrysene | 0.119 | 0.00188 | 0.00374 | 0.00749 | |
| 53-70-3 | Dibenz(a,h)anthracene | 0.0489 | 0.00188 | 0.00374 | 0.00749 | |
| 206-44-0 | Fluoranthene | 0.115 | 0.00188 | 0.00374 | 0.00749 | |
| 86-73-7 | Fluorene | 0.00425 | 0.00188 | 0.00374 | 0.00749 | I |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.180 | 0.00188 | 0.00374 | 0.00749 | |
| 90-12-0 | 1-Methylnaphthalene | | 0.00188 | 0.00374 | 0.00749 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00188 | 0.00374 | 0.00749 | U |
| 91-20-3 | Naphthalene | | 0.00188 | 0.00374 | 0.00749 | U |
| 85-01-8 | Phenanthrene | 0.0260 | 0.00188 | 0.00374 | 0.00749 | |
| 129-00-0 | Pyrene | 0.126 | 0.00188 | 0.00374 | 0.00749 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.669 | 3.761 | 103 | 14 - 129 | |
| Terphenyl-d14 | 3.669 | 3.641 | 99.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-111-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-45 | File ID: | 0802545.D |
| Sampled: | 07/30/11 12:50 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/19/11 12:02 |
| Solids: | 78.04 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23109 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00210 | 0.00418 | 0.00838 | U |
| 208-96-8 | Acenaphthylene | | 0.00210 | 0.00418 | 0.00838 | U |
| 120-12-7 | Anthracene | | 0.00210 | 0.00418 | 0.00838 | U |
| 56-55-3 | Benzo(a)anthracene | 0.00652 | 0.00210 | 0.00418 | 0.00838 | I |
| 50-32-8 | Benzo(a)pyrene | 0.00642 | 0.00210 | 0.00418 | 0.00838 | I |
| 205-99-2 | Benzo(b)fluoranthene | 0.00841 | 0.00210 | 0.00418 | 0.00838 | |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00210 | 0.00418 | 0.00838 | U |
| 207-08-9 | Benzo(k)fluoranthene | 0.00310 | 0.00210 | 0.00418 | 0.00838 | I |
| 218-01-9 | Chrysene | 0.00649 | 0.00210 | 0.00418 | 0.00838 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00210 | 0.00418 | 0.00838 | U |
| 206-44-0 | Fluoranthene | 0.0103 | 0.00210 | 0.00418 | 0.00838 | |
| 86-73-7 | Fluorene | | 0.00210 | 0.00418 | 0.00838 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00549 | 0.00210 | 0.00418 | 0.00838 | I |
| 90-12-0 | 1-Methylnaphthalene | | 0.00210 | 0.00418 | 0.00838 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00210 | 0.00418 | 0.00838 | U |
| 91-20-3 | Naphthalene | | 0.00210 | 0.00418 | 0.00838 | U |
| 85-01-8 | Phenanthrene | 0.00902 | 0.00210 | 0.00418 | 0.00838 | |
| 129-00-0 | Pyrene | 0.00808 | 0.00210 | 0.00418 | 0.00838 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.104 | 3.859 | 94.0 | 14 - 129 | |
| Terphenyl-d14 | 4.104 | 3.686 | 89.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-111-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-46 | File ID: | 0802546.D |
| Sampled: | 07/30/11 12:55 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/19/11 12:31 |
| Solids: | 79.06 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23109 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00207 | 0.00413 | 0.00827 | U |
| 208-96-8 | Acenaphthylene | | 0.00207 | 0.00413 | 0.00827 | U |
| 120-12-7 | Anthracene | | 0.00207 | 0.00413 | 0.00827 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00207 | 0.00413 | 0.00827 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00207 | 0.00413 | 0.00827 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00207 | 0.00413 | 0.00827 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00207 | 0.00413 | 0.00827 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00207 | 0.00413 | 0.00827 | U |
| 218-01-9 | Chrysene | | 0.00207 | 0.00413 | 0.00827 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00207 | 0.00413 | 0.00827 | U |
| 206-44-0 | Fluoranthene | | 0.00207 | 0.00413 | 0.00827 | U |
| 86-73-7 | Fluorene | | 0.00207 | 0.00413 | 0.00827 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00207 | 0.00413 | 0.00827 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00207 | 0.00413 | 0.00827 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00207 | 0.00413 | 0.00827 | U |
| 91-20-3 | Naphthalene | | 0.00207 | 0.00413 | 0.00827 | U |
| 85-01-8 | Phenanthrene | 0.00298 | 0.00207 | 0.00413 | 0.00827 | I |
| 129-00-0 | Pyrene | | 0.00207 | 0.00413 | 0.00827 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.051 | 3.388 | 83.6 | 14 - 129 | |
| Terphenyl-d14 | 4.051 | 3.429 | 84.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-111-0608**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-47 | File ID: | 0802547.D |
| Sampled: | 07/30/11 13:00 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/19/11 13:00 |
| Solids: | 74.71 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23109 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00222 | 0.00443 | 0.00887 | U |
| 208-96-8 | Acenaphthylene | | 0.00222 | 0.00443 | 0.00887 | U |
| 120-12-7 | Anthracene | | 0.00222 | 0.00443 | 0.00887 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00222 | 0.00443 | 0.00887 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00222 | 0.00443 | 0.00887 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00222 | 0.00443 | 0.00887 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00222 | 0.00443 | 0.00887 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00222 | 0.00443 | 0.00887 | U |
| 218-01-9 | Chrysene | | 0.00222 | 0.00443 | 0.00887 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00222 | 0.00443 | 0.00887 | U |
| 206-44-0 | Fluoranthene | | 0.00222 | 0.00443 | 0.00887 | U |
| 86-73-7 | Fluorene | | 0.00222 | 0.00443 | 0.00887 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00222 | 0.00443 | 0.00887 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00222 | 0.00443 | 0.00887 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00222 | 0.00443 | 0.00887 | U |
| 91-20-3 | Naphthalene | | 0.00222 | 0.00443 | 0.00887 | U |
| 85-01-8 | Phenanthrene | 0.00407 | 0.00222 | 0.00443 | 0.00887 | I |
| 129-00-0 | Pyrene | | 0.00222 | 0.00443 | 0.00887 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.343 | 3.765 | 86.7 | 14 - 129 | |
| Terphenyl-d14 | 4.343 | 3.766 | 86.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-111-0608D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-48 | File ID: | 0802548.D |
| Sampled: | 07/30/11 13:00 | Prepared: | 08/11/11 10:00 | Analyzed: | 08/19/11 13:29 |
| Solids: | 86.86 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03011 Sequence: 1H23109 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00191 | 0.00381 | 0.00763 | U |
| 208-96-8 | Acenaphthylene | | 0.00191 | 0.00381 | 0.00763 | U |
| 120-12-7 | Anthracene | | 0.00191 | 0.00381 | 0.00763 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00191 | 0.00381 | 0.00763 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00191 | 0.00381 | 0.00763 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00191 | 0.00381 | 0.00763 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00191 | 0.00381 | 0.00763 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00191 | 0.00381 | 0.00763 | U |
| 218-01-9 | Chrysene | | 0.00191 | 0.00381 | 0.00763 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00191 | 0.00381 | 0.00763 | U |
| 206-44-0 | Fluoranthene | | 0.00191 | 0.00381 | 0.00763 | U |
| 86-73-7 | Fluorene | | 0.00191 | 0.00381 | 0.00763 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00191 | 0.00381 | 0.00763 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00191 | 0.00381 | 0.00763 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00191 | 0.00381 | 0.00763 | U |
| 91-20-3 | Naphthalene | | 0.00191 | 0.00381 | 0.00763 | U |
| 85-01-8 | Phenanthrene | 0.00270 | 0.00191 | 0.00381 | 0.00763 | I |
| 129-00-0 | Pyrene | | 0.00191 | 0.00381 | 0.00763 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.736 | 3.083 | 82.5 | 14 - 129 | |
| Terphenyl-d14 | 3.736 | 3.045 | 81.5 | 14 - 129 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK #1**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1108025-50 | File ID: | 0802550.D |
| Sampled: | 07/30/11 16:00 | Prepared: | 08/04/11 15:39 | Analyzed: | 08/17/11 13:27 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1H03008 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0467 | 0.0935 | 0.187 | U |
| 208-96-8 | Acenaphthylene | | 0.0467 | 0.0935 | 0.187 | U |
| 120-12-7 | Anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0467 | 0.0935 | 0.187 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0467 | 0.0935 | 0.187 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 218-01-9 | Chrysene | | 0.0467 | 0.0935 | 0.187 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 206-44-0 | Fluoranthene | 0.0553 | 0.0467 | 0.0935 | 0.187 | I |
| 86-73-7 | Fluorene | | 0.0467 | 0.0935 | 0.187 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0467 | 0.0935 | 0.187 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 91-20-3 | Naphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 85-01-8 | Phenanthrene | 0.142 | 0.0467 | 0.0935 | 0.187 | IV |
| 129-00-0 | Pyrene | | 0.0467 | 0.0935 | 0.187 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 46.73 | 27.99 | 59.9 | 34 - 167 | |
| Terphenyl-d14 | 46.73 | 49.60 | 106 | 34 - 167 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK #2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1108025-51 | File ID: | 0802551.D |
| Sampled: | 07/30/11 16:05 | Prepared: | 08/04/11 15:39 | Analyzed: | 08/17/11 13:57 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1H03008 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 0.139 | 0.0467 | 0.0935 | 0.187 | I |
| 208-96-8 | Acenaphthylene | | 0.0467 | 0.0935 | 0.187 | U |
| 120-12-7 | Anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0467 | 0.0935 | 0.187 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0467 | 0.0935 | 0.187 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 218-01-9 | Chrysene | | 0.0467 | 0.0935 | 0.187 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 206-44-0 | Fluoranthene | 0.0529 | 0.0467 | 0.0935 | 0.187 | I |
| 86-73-7 | Fluorene | | 0.0467 | 0.0935 | 0.187 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0467 | 0.0935 | 0.187 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 91-20-3 | Naphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 85-01-8 | Phenanthrene | 0.167 | 0.0467 | 0.0935 | 0.187 | IV |
| 129-00-0 | Pyrene | | 0.0467 | 0.0935 | 0.187 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 46.73 | 26.97 | 57.7 | 34 - 167 | |
| Terphenyl-d14 | 46.73 | 47.47 | 102 | 34 - 167 | |

# ANALYSIS DATA SHEET

05-SS-099-0002

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-10 | File ID: | 012B1201.D |
| Sampled: | 07/30/11 09:20 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/29/11 22:07 |
| Solids: | 88.51 | Preparation: | EXT_3546 | Dilution: | 10 |

Batch: 1H03012 Sequence: 1H24213 Calibration: 1242006 Instrument: GL-GCFID

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 1970 | 123 | 245 | 491 | D |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.717 | 16.90 | 455 | 50 - 150 | * |
| o-Terphenyl | 3.717 | 5.752 | 155 | 35 - 140 | * |

# ANALYSIS DATA SHEET

**05-SS-100-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-06 | File ID: | 032F3301.D |
| Sampled: | 07/30/11 09:05 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 12:39 |
| Solids: | 91.28 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 15.8 | 11.5 | 23.0 | 46.1 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.489 | 3.168 | 90.8 | 50 - 150 | |
| o-Terphenyl | 3.489 | 3.222 | 92.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-100-0002D**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-09 | File ID: | 036F3701.D |
| Sampled: | 07/30/11 09:05 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 15:30 |
| Solids: | 81.85 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 20.8 | 13.4 | 26.7 | 53.4 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.045 | 4.003 | 98.9 | 50 - 150 | |
| o-Terphenyl | 4.045 | 3.639 | 89.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-100-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-07 | File ID: | 033F3401.D |
| Sampled: | 07/30/11 09:10 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 13:21 |
| Solids: | 87.70 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 31.7 | 12.4 | 24.8 | 49.5 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.751 | 4.022 | 107 | 50 - 150 | |
| o-Terphenyl | 3.751 | 3.717 | 99.1 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-100-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-08 | File ID: | 034F3501.D |
| Sampled: | 07/30/11 09:15 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 14:04 |
| Solids: | 84.26 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 23.8 | 12.6 | 25.1 | 50.2 | 1 |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.804 | 3.984 | 105 | 50 - 150 | |
| o-Terphenyl | 3.804 | 3.639 | 95.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-101-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-01 | File ID: | 027F2801.D |
| Sampled: | 07/30/11 08:30 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 09:06 |
| Solids: | 92.76 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 84.7 | 11.3 | 22.5 | 45.0 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.412 | 2.712 | 79.5 | 50 - 150 | |
| o-Terphenyl | 3.412 | 2.772 | 81.3 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-101-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-02 | File ID: | 028F2901.D |
| Sampled: | 07/30/11 08:35 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 09:48 |
| Solids: | 94.10 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 30.4 | 11.3 | 22.6 | 45.3 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.428 | 3.541 | 103 | 50 - 150 | |
| o-Terphenyl | 3.428 | 3.391 | 98.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-101-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-03 | File ID: | 029F3001.D |
| Sampled: | 07/30/11 08:40 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 10:31 |
| Solids: | 94.16 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 20.6 | 11.5 | 22.9 | 45.8 | 1 |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.470 | 4.029 | 116 | 50 - 150 | |
| o-Terphenyl | 3.470 | 3.500 | 101 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-102-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-04 | File ID: | 030F3101.D |
| Sampled: | 07/30/11 08:45 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 11:13 |
| Solids: | 87.73 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 18.2 | 12.4 | 24.7 | 49.5 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.750 | 3.744 | 99.8 | 50 - 150 | |
| o-Terphenyl | 3.750 | 3.475 | 92.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-102-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-05 | File ID: | 031F3201.D |
| Sampled: | 07/30/11 08:50 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 11:56 |
| Solids: | 80.06 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 37.5 | 13.4 | 26.8 | 53.5 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4.056 | 4.851 | 120 | 50 - 150 | |
| o-Terphenyl | 4.056 | 4.607 | 114 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-103-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-11 | File ID: | 038F3901.D |
| Sampled: | 07/30/11 09:25 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 16:55 |
| Solids: | 87.15 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 42.2 | 12.1 | 24.1 | 48.2 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.654 | 4.403 | 120 | 50 - 150 | |
| o-Terphenyl | 3.654 | 3.710 | 102 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SS-103-0204**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Soil | Laboratory ID: | 1108025-12 | File ID: | 039F4001.D |
| Sampled: | 07/30/11 09:30 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 17:38 |
| Solids: | 91.91 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 33.4 | 11.6 | 23.2 | 46.3 | 1 |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.510 | 3.256 | 92.8 | 50 - 150 | |
| o-Terphenyl | 3.510 | 3.017 | 86.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SS-103-0406

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTO JM26 Saufley |
| Matrix: | Soil | Laboratory ID: | 1108025-13 | File ID: | 040F4101.D |
| Sampled: | 07/30/11 09:35 | Prepared: | 08/12/11 09:38 | Analyzed: | 08/17/11 18:20 |
| Solids: | 92.61 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 20.0 | 11.5 | 23.0 | 46.0 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.483 | 3.420 | 98.2 | 50 - 150 | |
| o-Terphenyl | 3.483 | 3.088 | 88.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**EQUIP BLANK #1**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1108025-50 | File ID: | 025F2501.D |
| Sampled: | 07/30/11 16:00 | Prepared: | 08/04/11 14:12 | Analyzed: | 08/13/11 08:05 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1H03009 Sequence: 1H22811 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.157 | 0.315 | 0.630 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.04630 | 0.04136 | 89.3 | 50 - 150 | |
| o-Terphenyl | 0.04630 | 0.03645 | 78.7 | 82 - 142 | * |

# ANALYSIS DATA SHEET

**EQUIP BLANK #2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | Water | Laboratory ID: | 1108025-51 | File ID: | 026F2601.D |
| Sampled: | 07/30/11 16:05 | Prepared: | 08/04/11 14:12 | Analyzed: | 08/13/11 08:48 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1H03009 Sequence: 1H22811 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.05437 | 109 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.04672 | 93.4 | 82 - 142 | |

# APPENDIX C

## SUPPORT DOCUMENTATION

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8270C PAH:**
The method blank 1H03008-BLK2 has a positive result for Phenanthrene. The method blank 1H03010-BLK1 has positive results for Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chyrsene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
The surrogates 2-Fluorobiphenyl and o-Terphenyl exceeded criteria with a positive bias in 1108025-10. The surrogate o-Terphenyl exceeded criteria with a negative bias in 1108025-50 and 1H03012-BLK1. The surrogate 2-Fluorobiphenyl exceeded criteria with no recovery in 1H03012-BLK1. The surrogate 2-Fluorobiphenyl exceeded the retention time window in 1108025-01 and -10. The result bias due to the retention time shift was determined to be negligible for all affected samples.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 1917 | PAGE ___ OF ___

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G02748 | Sawley Field | G. Pope | 850 385 9899 | EMPIRICAL |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| M Brock | | M. Brock | 850 294 2830 | 621 Mainstream STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | | | Nashville TN 37228 |

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

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

| | DATE YEAR 2011 | TIME | SAMPLE ID 1108025 | 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 | | | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -01 | 7 30 | 0830 | 05-SS-101-0002 | 101 | 0 | 2 | SO | C | 1 | ✓ | | | | | | IM | | red brown sand |
| -02 | | 0835 | 05-SS-101-0204 | 101 | 2 | 4 | | | 1 | ✓ | | | | | | | | red brown sand |
| -03 | | 0840 | 05-SS-101-0406 | 101 | 4 | 6 | | | 1 | ✓ | | | | | | | | brown sand |
| -04 | | 0845 | 05-SS-102-0002 | 102 | 0 | 2 | | | 1 | ✓ | | | | | | | | red brown sand |
| -05 | | 0850 | 05-SS-102-0204 | 102 | 2 | 4 | | | 1 | ✓ | | | | | | | | red completely saturated sand |
| | | ~~0855~~ | ~~05-SS-102-0406~~ | ~~102~~ | ~~4~~ | ~~6~~ | ~~MET~~ | ~~REFUSAL~~ | | | | | | | | | | |
| -06 | | 0905 | 05-SS-100-0002 | 100 | 0 | 2 | | | 1 | ✓ | | | | | | | | brown sand |
| -07 | | 0910 | 05-SS-100-0204 | 100 | 2 | 4 | | | 1 | ✓ | | | | | | | | brown sand |
| -08 | | 0915 | 05-SS-100-0406 | 100 | 4 | 6 | | | 1 | ✓ | | | | | | | | redbrown sand |
| -09 | | 0905 | 05-SS-100-0002D | 100 | 0 | 2 | | | 1 | ✓ | | | | | | | | brown sand |
| -10 | | 0920 | 05-SS-099-0002 | 099 | 0 | 2 | | | 1 | ✓ | | | | | | | | gray brown sand ~~HOT - saturated~~ |
| -11 | | 0925 | 05-SS-103-0002 | 103 | 0 | 2 | | | 1 | ✓ | | | | | | | | brown sand |
| -12 | | 0930 | 05-SS-103-0204 | 103 | 2 | 4 | | | 1 | ✓ | | | | | | ✓ | | red brown sand |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY M Brock | DATE Aug. 1 2011 | TIME 1600 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY Reynald Talley 2.8°C | DATE 8.2.11 | TIME 0900 |

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 1918 | PAGE ___ OF ___

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Sawfley Field | PROJECT MANAGER G. Pope | PHONE NUMBER 850 385 9899 | LABORATORY NAME AND CONTACT: EMPIRICAL |
| SAMPLERS (SIGNATURE) M Brock | | FIELD OPERATIONS LEADER M Brock | PHONE NUMBER 850 294 2830 | ADDRESS 621 Mainstream STE 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE Nashville TN 37228 |

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

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

| | DATE YEAR 2011 | TIME | SAMPLE ID 1108025 | 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 | DRH | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -13 | 7.30 | 0935 | 05-SS-103-0406 | 103 | 4 | 6 | SO | C | 1 | ✓ | (–) | | | | | 1M | redbrown sand |
| -14 | | 1010 | 05-SS-104-0002 | 104 | 0 | 2 | | | 1 | – | ✓ | | | | | | redbrown sand |
| -15 | | 1015 | 05-SS-104-0204 | 104 | 2 | 4 | | | 1 | – | ✓ | | | | | | red brown sand |
| -16 | | 1020 | 05-SS-104-0406 | 104 | 4 | 6 | | | 1 | – | ✓ | | | | | | brown sand |
| -17 | | 1025 | 05-SS-104-0608 | 104 | 6 | 8 | | | 1 | – | ✓ | | | | | | brown sand |
| -18 | | 1030 | 05-SS-105-0002 | 105 | 0 | 2 | | | | – | ✓ | | | | | | red brown sand |
| -19 | | 1035 | 05-SS-105-0204 | 105 | 2 | 4 | | | | – | ✓ | | | | | | red brown sand |
| -20 | | 1040 | 05-SS-105-0406 | 105 | 4 | 6 | | | | – | ✓ | | | | | | red brown sand |
| -21 | | 1045 | 05-SS-105-0608 | 105 | 6 | 8 | | | | – | ✓ | | | | | | clayey redbrown sand |
| -22 | | 1040 | 05-SS-105-0406D | 105 | 04 | 06 | | | | – | ✓ | | | | | | redbrown sand |
| -23 | | 1050 | 05-SS-106-0002 | 106 | 0 | 2 | | | | – | ✓ | | | | | | red brown sand |
| -24 | | 1055 | 05-SS-106-0204 | 106 | 2 | 4 | | | | – | ✓ | | | | | | brown sand |
| -25 | | 1200 | 05-SS-106-0406 | 106 | 4 | 6 | | | | – | ✓ | | | | | | tan/red sand |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY [signature] | DATE Aug 1. 2011 | TIME 1100 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY Reginald Talley 28th | DATE 8.2.11 | TIME 0900 |

COMMENTS

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

4/02R
FORM NO. TINUS-001

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 1919 | PAGE ___ OF ___

PROJECT NO: 112G02746 FACILITY: Sauget

SAMPLERS (SIGNATURE): M Brock

PROJECT MANAGER: G. Pope

PHONE NUMBER:

LABORATORY NAME AND CONTACT: Empirical

FIELD OPERATIONS LEADER: M. Brock

PHONE NUMBER:

ADDRESS:

CARRIER/WAYBILL NUMBER:

CITY, STATE:

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

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

PRESERVATIVE USED: Ice

TYPE OF ANALYSIS: PAH

| | DATE YEAR 2011 | TIME | SAMPLE ID 1108025 | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, QC, ETC.) | COLLECTION METHOD GRAB (G) COMP (C) | No. OF CONTAINERS | PAH | | | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -26 | 7.30 | 1105 | 05-SS-106-0608 | 106 | 6 | 8 | SO | C | 1 | ✓ | | | | | | | | clayey red sand |
| -27 | | 1110 | 05-SS-107-0002 | 107 | 0 | 2 | | | 1 | ✓ | | | | | | | | red brown sand |
| -28 | | 1115 | 05-SS-107-0204 | 107 | 2 | 4 | | | 1 | ✓ | | | | | | | | " |
| -29 | | 1120 | 05-SS-107-0406 | 107 | 4 | 6 | | | 1 | ✓ | | | | | | | | " |
| -30 | | 1125 | 05-SS-107-0608 | 107 | 6 | 8 | | | 1 | ✓ | | | | | | | | " |
| -31 | | 1145 | 05-SS-108-0002 | 108 | 0 | 2 | | | 1 | ✓ | | | | | | | | red brown sand |
| -32 | | 1145 | 05-SS-108-0002D | 108 | 0 | 2 | | | 1 | ✓ | | | | | | | | red brown sand |
| -33 | | 1150 | 05-SS-108-0204 | 108 | 2 | 4 | | | 1 | ✓ | | | | | | | | red brown sand |
| -34 | | 1155 | 05-SS-108-0406 | 108 | 4 | 6 | | | 1 | ✓ | | | | | | | | brown tan sand |
| -35 | | 1200 | 05-SS-108-0608 | 108 | 6 | 8 | | | 1 | ✓ | | | | | | | | red brown sand |
| -36 | | 1205 | 05-SS-109-0002 | 109 | 0 | 2 | | | 1 | ✓ | | | | | | | | moist tan brown sand |
| -37 | | 1210 | 05-SS-109-0204 | 109 | 2 | 4 | | | 1 | ✓ | | | | | | | | red brown sand |
| -38 | | 1215 | 05-SS-109-0406 | 109 | 4 | 6 | | | 1 | ✓ | | | | | | | | tan red sand |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY: [signature] | DATE: Aug 1. 2011 | TIME: 1100 | 1. RECEIVED BY: | DATE: | TIME: |
| 2. RELINQUISHED BY: | DATE: | TIME: | 2. RECEIVED BY: | DATE: | TIME: |
| 3. RELINQUISHED BY: | DATE: | TIME: | 3. RECEIVED BY: Reginald Lattley 2.8° | DATE: 8.2.11 | TIME: 0900 |

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 1920 | PAGE ___ OF ___

| | | | |
|---|---|---|---|
| PROJECT NO: 112G02748 | FACILITY: Saufley Field | PROJECT MANAGER G. Pope | PHONE NUMBER 850 385 9899 |
| SAMPLERS (SIGNATURE) M Brock | | FIELD OPERATIONS LEADER M. Brock | PHONE NUMBER 850 294 2830 |
| | | CARRIER/WAYBILL NUMBER | |

LABORATORY NAME AND CONTACT: Empirical

ADDRESS: 621 Mainstream STE 270

CITY, STATE: Nashville TN 37228

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: ICE

TYPE OF ANALYSIS: PIAH, TRPH

| | DATE YEAR 2011 | TIME | SAMPLE ID 1108025 | LOCATION ID | TOP DEPTH (FT) | BOTTOM DEPTH (FT) | MATRIX (GW, SO, SW, SD, QC, ETC.) | COLLECTION METHOD GRAB (G) COMP (C) | No. OF CONTAINERS | PIAH | TRPH | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -39 | 7-30 | 1220 | 05-SS-109-0608 | 109 | 6 | 8 | SO | C | 1 | ✓ | - | | | | | 1M | dense red sand |
| -40 | | 1225 | 05-SS-110-0002 | 110 | 0 | 2 | | | 1 | ✓ | - | | | | | | tan-dark brown sand |
| -41 | | 1230 | 05-SS-110-0204 | 110 | 2 | 4 | | | 1 | ✓ | - | | | | | | red brown sand |
| -42 | | 1235 | 05-SS-110-0406 | 110 | 4 | 6 | | | 1 | ✓ | - | | | | | | tan/red sand |
| -43 | | 1240 | 05-SS-110-0608 | 110 | 6 | 8 | | | 1 | ✓ | - | | | | | | dense moist red clayey sand |
| -44 | | 1245 | 05-SS-111-0002 | 111 | 0 | 2 | | | 1 | ✓ | - | | | | | | brown sand |
| -45 | | 1250 | 05-SS-111-0204 | 111 | 2 | 4 | | | 1 | ✓ | - | | | | | | red w/ black sand |
| -46 | | 1255 | 05-SS-111-0406 | 111 | 4 | 6 | | | 1 | ✓ | - | | | | | | red brown sand |
| -47 | | 1300 | 05-SS-111-0608 | 111 | 6 | 8 | | | 1 | ✓ | - | | | | | | dense red sand moist |
| -48 | | 1300 | 05-SS-111-0608D | 111 | 6 | 8 | ✓ | ✓ | 1 | ✓ | - | | | | | | " |
| -49 | | 1235 | 05-SS-110-0406D | 110 | 4 | 6 | ✓ | ✓ | 1 | ✓ | - | | | | | | tan/red sand |
| -50 | | 1600 | Equip. Blank #1 | — | — | — | QC | G | 4 | ✓ | ✓ | | | | 1H+2HHY | | sleeve |
| -51 | | 1605 | Equip. Blank #2 | — | — | — | QC | G | 4 | ✓ | ✓ | | | | 2H+2HHY | | gloves |

| | | | | | |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY [signature] | DATE Aug 1 2011 | TIME 1100 | 1. RECEIVED BY | DATE | TIME |
| 2. RELINQUISHED BY | DATE | TIME | 2. RECEIVED BY | DATE | TIME |
| 3. RELINQUISHED BY | DATE | TIME | 3. RECEIVED BY Reginald Talley | DATE 8.2.11 | TIME 0900 |

COMMENTS

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

4/02R
FORM NO. TtNUS-001

# SAUFLEY FIELD
# SOIL DATA
# 1108025

| FRACTION | CHEMICAL | 05-SS-100-0002 | UNITS | 05-SS-100-0002D | RPD | D |
|---|---|---|---|---|---|---|
| PET | TPH (C08-C40) | 15.8 J | MG/KG | 20.8 J | 27.32 | 5.00 |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

# SAUFLEY FIELD
# SOIL DATA
# 1108025

| FRACTION | CHEMICAL | 05-SS-111-0608 | UNITS | 05-SS-111-0608D | RPD | D |
|---|---|---|---|---|---|---|
| PAH | PHENANTHRENE | 0.00407 J | MG/KG | 0.0027 J | 40.47 | 0.00 |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

# SAUFLEY FIELD
# SOIL DATA
# 1108025

| FRACTION | CHEMICAL | 05-SS-110-0406 | UNITS | 05-SS-110-0406D | RPD | D |
|---|---|---|---|---|---|---|
| PAH | FLUORANTHENE | 0.00243 J | MG/KG | ND | 200.00 | 0.00 |
| PAH | PHENANTHRENE | 0.00446 J | MG/KG | 0.00349 J | 24.40 | 0.00 |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

# SAUFLEY FIELD
# SOIL DATA
# 1108025

| FRACTION | CHEMICAL | 05-SS-108-0002 | UNITS | 05-SS-108-0002D | RPD | D |
|---|---|---|---|---|---|---|
| PAH | ACENAPHTHYLENE | ND | MG/KG | 0.00269 J | 200.00 | 0.00 |
| PAH | BENZO(G,H,I)PERYLENE | ND | MG/KG | 0.00196 | 200.00 | 0.00 |
| PAH | PYRENE | 0.00254 J | MG/KG | 0.0107 | 123.26 | 0.01 |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

# SAUFLEY FIELD
# SOIL DATA
# 1108025

| FRACTION | CHEMICAL | 05-SS-105-0406 | UNITS | 05-SS-105-0406D | RPD | D |
|---|---|---|---|---|---|---|
| PAH | PYRENE | 0.00721 J | MG/KG | 0.0028 J | 88.11 | 0.00 |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

## 15.2 MATRIX: SOIL

### 15.2.1 Analytical Group: PAHs

| Analyte | CAS Number | Project Action Limit [1] (mg/kg) | Project Action Limit Reference | Project Quantitation Limit Goal (mg/kg) | Empirical | | |
|---|---|---|---|---|---|---|---|
| | | | | | LOQ (mg/kg) | LOD (mg/kg) | MDL (mg/kg) |
| 1-METHYLNAPHTHALENE | 90-12-0 | 3.1 | Leach to GW - SCTL | 1.0 | 0.007 | 0.0033 | 0.0017 |
| 2-METHYLNAPHTHALENE | 91-57-6 | 8.5 | Leach to GW - SCTL | 2.8 | 0.007 | 0.0033 | 0.0017 |
| ACENAPHTHENE | 83-32-9 | 2.1 | Leach to GW - SCTL | 0.70 | 0.007 | 0.0033 | 0.0017 |
| ACENAPHTHYLENE | 208-96-8 | 27 | Leach to GW - SCTL | 9.0 | 0.007 | 0.0033 | 0.0017 |
| ANTHRACENE | 120-12-7 | 2,500 | Leach to GW - SCTL | 830 | 0.007 | 0.0033 | 0.0017 |
| BENZO(A)ANTHRACENE | 56-55-3 | 0.8 | Leach to GW - SCTL | 0.27 | 0.007 | 0.0033 | 0.0017 |
| BENZO(A)PYRENE | 50-32-8 | 0.1 | Residential - SCTL | 0.033 | 0.007 | 0.0033 | 0.0017 |
| BENZO(B)FLUORANTHENE | 205-99-2 | 2.4 | Leach to GW - SCTL | 0.80 | 0.007 | 0.0033 | 0.0017 |
| BENZO(G,H,I)PERYLENE | 191-24-2 | 2,500 | Residential - SCTL | 830 | 0.007 | 0.0033 | 0.0017 |
| BENZO(K)FLUORANTHENE | 207-08-9 | 24 | Leach to GW - SCTL | 8.0 | 0.007 | 0.0033 | 0.0017 |
| CHRYSENE | 218-01-9 | 77 | Leach to GW - SCTL | 26 | 0.007 | 0.0033 | 0.0017 |
| DIBENZO(A,H)ANTHRACENE | 53-70-3 | 0.1 | Residential - SCTL | 0.23 | 0.007 | 0.0033 | 0.0017 |
| FLUORANTHENE | 206-44-0 | 1,200 | Leach to GW - SCTL | 400 | 0.007 | 0.0033 | 0.0017 |
| FLUORENE | 86-73-7 | 160 | Leach to GW - SCTL | 53 | 0.007 | 0.0033 | 0.0017 |
| INDENO(1,2,3-CD)PYRENE | 193-39-5 | 6.6 | Leach to GW - SCTL | 2.2 | 0.007 | 0.0033 | 0.0017 |
| NAPHTHALENE | 91-20-3 | 1.2 | Leach to GW - SCTL | 0.40 | 0.007 | 0.0033 | 0.0017 |
| PHENANTHRENE | 85-01-8 | 250 | Leach to GW - SCTL | 83 | 0.007 | 0.0033 | 0.0017 |
| PYRENE | 129-00-0 | 880 | Leach to GW - SCTL | 290 | 0.007 | 0.0033 | 0.0017 |

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1107025 Number of Coolers: 1 of 2

Client: Tetra Tech NUS Project: Sanfley Field

Date/Time Received: 8.2.11 0900 Date cooler(s) opened: 8.2.11

Opened By (print): Reginald Talley (signature): Reginald Talley

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: 5703

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 1 Seal date: 8.1.11 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: Initial Value: 1.4 °C Correction Factor: +1.4 °C Final Value: 2.8 °C

Dates samples were logged-in: 8.2.11

9. Initial this form to acknowledge login of sample(s): (Name): Reginald Talley (Initial): RT

| | | | |
|---|---|---|---|
| 10. Were all bottle lids intact and sealed tightly? | Yes | No | N/A |
| 11. Did all bottles arrive unbroken? RT 8.2 | ~~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 |

1 Broken Amber Sample ID is Equip-Blank #1

If Non-Conformance issues were present, list by sample ID: _____

Ph for TRPH was <2

**EMPIRICAL LABORATORIES**
**COOLER RECEIPT FORM**

LIMS Number: 1107025 Number of Coolers: 2 of 2

Client: Tetra Tech NUS Project: Sanfley Field

Date/Time Received: 8.2.11 0900 Date cooler(s) opened: 8.2.11

Opened By (print): Reginald Talley (signature): Reginald Talley

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: 5719

2. Were custody seals on outside of cooler(s)? ..... Yes No

How many: 2 Seal date: 8.1.11 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: Initial Value: 1.8 °C Correction Factor: +1.4 °C Final Value: 3.2 °C

Dates samples were logged-in: 8.2.11

9. Initial this form to acknowledge login of sample(s): (Name): Reginald Talley (Initial): RT

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

If Non-Conformance issues were present, list by sample ID: _____

See pg 1

# HOLDING TIME SUMMARY
## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-103-0406 | 07/30/11 09:35 | 08/02/11 09:00 | 08/09/11 16:52 | 10.30 | 14.00 | 08/11/11 19:12 | 2.10 | 40.00 | |
| 05-SS-104-0002 | 07/30/11 10:10 | 08/02/11 09:00 | 08/04/11 15:54 | 5.24 | 14.00 | 08/17/11 15:56 | 13.00 | 40.00 | |
| 05-SS-104-0204 | 07/30/11 10:15 | 08/02/11 09:00 | 08/04/11 15:54 | 5.24 | 14.00 | 08/17/11 17:24 | 13.06 | 40.00 | |
| 05-SS-104-0406 | 07/30/11 10:20 | 08/02/11 09:00 | 08/04/11 15:54 | 5.23 | 14.00 | 08/17/11 17:54 | 13.08 | 40.00 | |
| 05-SS-104-0608 | 07/30/11 10:25 | 08/02/11 09:00 | 08/04/11 15:54 | 5.23 | 14.00 | 08/17/11 18:23 | 13.10 | 40.00 | |
| 05-SS-105-0002 | 07/30/11 10:30 | 08/02/11 09:00 | 08/04/11 15:54 | 5.23 | 14.00 | 08/17/11 18:52 | 13.12 | 40.00 | |
| 05-SS-105-0204 | 07/30/11 10:35 | 08/02/11 09:00 | 08/04/11 15:54 | 5.22 | 14.00 | 08/17/11 19:21 | 13.14 | 40.00 | |
| 05-SS-105-0406 | 07/30/11 10:40 | 08/02/11 09:00 | 08/04/11 15:54 | 5.22 | 14.00 | 08/17/11 19:49 | 13.16 | 40.00 | |
| 05-SS-105-0608 | 07/30/11 10:45 | 08/02/11 09:00 | 08/04/11 15:54 | 5.21 | 14.00 | 08/17/11 20:18 | 13.18 | 40.00 | |
| 05-SS-105-0406D | 07/30/11 10:40 | 08/02/11 09:00 | 08/04/11 15:54 | 5.22 | 14.00 | 08/17/11 20:47 | 13.20 | 40.00 | |
| 05-SS-106-0002 | 07/30/11 10:50 | 08/02/11 09:00 | 08/04/11 15:54 | 5.21 | 14.00 | 08/17/11 21:15 | 13.22 | 40.00 | |
| 05-SS-106-0204 | 07/30/11 10:55 | 08/02/11 09:00 | 08/04/11 15:54 | 5.21 | 14.00 | 08/18/11 15:37 | 13.99 | 40.00 | |
| 05-SS-106-0406 | 07/30/11 11:00 | 08/02/11 09:00 | 08/04/11 15:54 | 5.20 | 14.00 | 08/18/11 16:06 | 14.01 | 40.00 | |
| 05-SS-106-0608 | 07/30/11 11:05 | 08/02/11 09:00 | 08/04/11 15:54 | 5.20 | 14.00 | 08/18/11 16:35 | 14.03 | 40.00 | |
| 05-SS-107-0002 | 07/30/11 11:10 | 08/02/11 09:00 | 08/04/11 15:54 | 5.20 | 14.00 | 08/18/11 17:03 | 14.05 | 40.00 | |
| 05-SS-107-0204 | 07/30/11 11:15 | 08/02/11 09:00 | 08/04/11 15:54 | 5.19 | 14.00 | 08/18/11 17:32 | 14.07 | 40.00 | |
| 05-SS-107-0406 | 07/30/11 11:20 | 08/02/11 09:00 | 08/04/11 15:54 | 5.19 | 14.00 | 08/18/11 18:00 | 14.09 | 40.00 | |
| 05-SS-107-0608 | 07/30/11 11:25 | 08/02/11 09:00 | 08/04/11 15:54 | 5.19 | 14.00 | 08/18/11 18:28 | 14.11 | 40.00 | |
| 05-SS-108-0002 | 07/30/11 11:45 | 08/02/11 09:00 | 08/04/11 15:54 | 5.17 | 14.00 | 08/18/11 18:55 | 14.13 | 40.00 | |
| 05-SS-108-0002D | 07/30/11 11:45 | 08/02/11 09:00 | 08/04/11 15:54 | 5.17 | 14.00 | 08/18/11 19:23 | 14.15 | 40.00 | |
| 05-SS-108-0204 | 07/30/11 11:50 | 08/02/11 09:00 | 08/04/11 15:54 | 5.17 | 14.00 | 08/18/11 19:51 | 14.16 | 40.00 | |
| 05-SS-108-0406 | 07/30/11 11:55 | 08/02/11 09:00 | 08/04/11 15:54 | 5.17 | 14.00 | 08/18/11 20:19 | 14.18 | 40.00 | |
| 05-SS-108-0608 | 07/30/11 12:00 | 08/02/11 09:00 | 08/11/11 10:00 | 11.92 | 14.00 | 08/18/11 20:47 | 7.45 | 40.00 | |
| 05-SS-109-0002 | 07/30/11 12:05 | 08/02/11 09:00 | 08/11/11 10:00 | 11.91 | 14.00 | 08/18/11 21:14 | 7.47 | 40.00 | |

# HOLDING TIME SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-109-0204 | 07/30/11 12:10 | 08/02/11 09:00 | 08/11/11 10:00 | 11.91 | 14.00 | 08/18/11 21:42 | 7.49 | 40.00 | |
| 05-SS-109-0406 | 07/30/11 12:15 | 08/02/11 09:00 | 08/11/11 10:00 | 11.91 | 14.00 | 08/18/11 22:09 | 7.51 | 40.00 | |
| 05-SS-109-0608 | 07/30/11 12:20 | 08/02/11 09:00 | 08/11/11 10:00 | 11.90 | 14.00 | 08/18/11 22:37 | 7.53 | 40.00 | |
| 05-SS-110-0002 | 07/30/11 12:25 | 08/02/11 09:00 | 08/11/11 10:00 | 11.90 | 14.00 | 08/18/11 23:05 | 7.55 | 40.00 | |
| 05-SS-110-0204 | 07/30/11 12:30 | 08/02/11 09:00 | 08/11/11 10:00 | 11.90 | 14.00 | 08/18/11 23:33 | 7.56 | 40.00 | |
| 05-SS-110-0406 | 07/30/11 12:35 | 08/02/11 09:00 | 08/11/11 10:00 | 11.89 | 14.00 | 08/19/11 00:01 | 7.58 | 40.00 | |
| 05-SS-110-0608 | 07/30/11 12:40 | 08/02/11 09:00 | 08/11/11 10:00 | 11.89 | 14.00 | 08/19/11 00:29 | 7.60 | 40.00 | |
| 05-SS-111-0002 | 07/30/11 12:45 | 08/02/11 09:00 | 08/11/11 10:00 | 11.89 | 14.00 | 08/19/11 17:18 | 8.30 | 40.00 | |
| 05-SS-111-0204 | 07/30/11 12:50 | 08/02/11 09:00 | 08/11/11 10:00 | 11.88 | 14.00 | 08/19/11 12:02 | 8.08 | 40.00 | |
| 05-SS-111-0406 | 07/30/11 12:55 | 08/02/11 09:00 | 08/11/11 10:00 | 11.88 | 14.00 | 08/19/11 12:31 | 8.10 | 40.00 | |
| 05-SS-111-0608 | 07/30/11 13:00 | 08/02/11 09:00 | 08/11/11 10:00 | 11.88 | 14.00 | 08/19/11 13:00 | 8.13 | 40.00 | |
| 05-SS-111-0608D | 07/30/11 13:00 | 08/02/11 09:00 | 08/11/11 10:00 | 11.88 | 14.00 | 08/19/11 13:29 | 8.15 | 40.00 | |
| 05-SS-110-0406D | 07/30/11 12:35 | 08/02/11 09:00 | 08/11/11 10:00 | 11.89 | 14.00 | 08/19/11 13:58 | 8.17 | 40.00 | |
| EQUIP BLANK #1 | 07/30/11 16:00 | 08/02/11 09:00 | 08/04/11 15:39 | 4.99 | 7.00 | 08/17/11 13:27 | 12.91 | 40.00 | |
| EQUIP BLANK #2 | 07/30/11 16:05 | 08/02/11 09:00 | 08/04/11 15:39 | 4.98 | 7.00 | 08/17/11 13:57 | 12.93 | 40.00 | |

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-101-0002 | 07/30/11 08:30 | 08/02/11 09:00 | 08/12/11 09:38 | 13.05 | 14.00 | 08/17/11 09:06 | 4.98 | 40.00 | |
| 05-SS-101-0204 | 07/30/11 08:35 | 08/02/11 09:00 | 08/12/11 09:38 | 13.04 | 14.00 | 08/17/11 09:48 | 5.01 | 40.00 | |
| 05-SS-101-0406 | 07/30/11 08:40 | 08/02/11 09:00 | 08/12/11 09:38 | 13.04 | 14.00 | 08/17/11 10:31 | 5.04 | 40.00 | |
| 05-SS-102-0002 | 07/30/11 08:45 | 08/02/11 09:00 | 08/12/11 09:38 | 13.04 | 14.00 | 08/17/11 11:13 | 5.07 | 40.00 | |
| 05-SS-102-0204 | 07/30/11 08:50 | 08/02/11 09:00 | 08/12/11 09:38 | 13.03 | 14.00 | 08/17/11 11:56 | 5.10 | 40.00 | |
| 05-SS-100-0002 | 07/30/11 09:05 | 08/02/11 09:00 | 08/12/11 09:38 | 13.02 | 14.00 | 08/17/11 12:39 | 5.13 | 40.00 | |
| 05-SS-100-0204 | 07/30/11 09:10 | 08/02/11 09:00 | 08/12/11 09:38 | 13.02 | 14.00 | 08/17/11 13:21 | 5.15 | 40.00 | |
| 05-SS-100-0406 | 07/30/11 09:15 | 08/02/11 09:00 | 08/12/11 09:38 | 13.02 | 14.00 | 08/17/11 14:04 | 5.18 | 40.00 | |
| 05-SS-100-0002D | 07/30/11 09:05 | 08/02/11 09:00 | 08/12/11 09:38 | 13.02 | 14.00 | 08/17/11 15:30 | 5.24 | 40.00 | |
| 05-SS-099-0002 | 07/30/11 09:20 | 08/02/11 09:00 | 08/12/11 09:38 | 13.01 | 14.00 | 08/29/11 22:07 | 17.52 | 40.00 | |
| 05-SS-103-0002 | 07/30/11 09:25 | 08/02/11 09:00 | 08/12/11 09:38 | 13.01 | 14.00 | 08/17/11 16:55 | 5.30 | 40.00 | |
| 05-SS-103-0204 | 07/30/11 09:30 | 08/02/11 09:00 | 08/12/11 09:38 | 13.01 | 14.00 | 08/17/11 17:38 | 5.33 | 40.00 | |
| 05-SS-103-0406 | 07/30/11 09:35 | 08/02/11 09:00 | 08/12/11 09:38 | 13.00 | 14.00 | 08/17/11 18:20 | 5.36 | 40.00 | |
| EQUIP BLANK #1 | 07/30/11 16:00 | 08/02/11 09:00 | 08/04/11 14:12 | 4.93 | 7.00 | 08/13/11 08:05 | 8.75 | 40.00 | |
| EQUIP BLANK #2 | 07/30/11 16:05 | 08/02/11 09:00 | 08/04/11 14:12 | 4.92 | 7.00 | 08/13/11 08:48 | 8.78 | 40.00 | |

**PROJ_NO** 02748

| SDG | SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1108025 | PAH | MG/KG | 05-SS-107-0002 | 1108025-27 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-106-0002 | 1108025-23 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-106-0002 | 1108025-23 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-106-0204 | 1108025-24 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-106-0204 | 1108025-24 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-106-0406 | 1108025-25 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-106-0406 | 1108025-25 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-106-0608 | 1108025-26 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-108-0002D | 1108025-32 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-107-0002 | 1108025-27 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-105-0406D | 1108025-22 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-107-0204 | 1108025-28 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-107-0204 | 1108025-28 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-107-0406 | 1108025-29 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-107-0608 | 1108025-30 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-108-0002 | 1108025-31 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |

| SDG | SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1108025 | PAH | MG/KG | 05-SS-108-0002 | 1108025-31 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-108-0002D | 1108025-32 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-106-0608 | 1108025-26 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-104-0608 | 1108025-17 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-103-0406 | 1108025-13 | NM | 07/30/2011 | 08/09/2011 | 08/11/2011 | 10 | 2 | 12 |
| 1108025 | PAH | MG/KG | 05-SS-103-0406 | 1108025-13 | SUR | 07/30/2011 | 08/09/2011 | 08/11/2011 | 10 | 2 | 12 |
| 1108025 | PAH | MG/KG | 05-SS-104-0002 | 1108025-14 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-104-0002 | 1108025-14 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-104-0204 | 1108025-15 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-104-0204 | 1108025-15 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-104-0406 | 1108025-16 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-105-0608 | 1108025-21 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-104-0608 | 1108025-17 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-105-0608 | 1108025-21 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-105-0002 | 1108025-18 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-105-0002 | 1108025-18 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-105-0204 | 1108025-19 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-105-0204 | 1108025-19 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-105-0406 | 1108025-20 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |

| SDG | SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1108025 | PAH | MG/KG | 05-SS-105-0406 | 1108025-20 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-105-0406D | 1108025-22 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-107-0608 | 1108025-30 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-104-0406 | 1108025-16 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | MG/KG | 05-SS-107-0406 | 1108025-29 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-110-0406 | 1108025-42 | NM | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-110-0406 | 1108025-42 | SUR | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-110-0406D | 1108025-49 | NM | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-110-0406D | 1108025-49 | SUR | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-110-0608 | 1108025-43 | NM | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-110-0608 | 1108025-43 | SUR | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-110-0204 | 1108025-41 | SUR | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-111-0002 | 1108025-44 | SUR | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-111-0002 | 1108025-44 | NM | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-111-0204 | 1108025-45 | SUR | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-111-0406 | 1108025-46 | NM | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-111-0406 | 1108025-46 | SUR | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-111-0608 | 1108025-47 | NM | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-111-0608 | 1108025-47 | SUR | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |

| SDG | SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1108025 | PAH | MG/KG | 05-SS-111-0608D | 1108025-48 | NM | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-111-0608D | 1108025-48 | SUR | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-108-0204 | 1108025-33 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-108-0406 | 1108025-34 | NM | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-111-0204 | 1108025-45 | NM | 07/30/2011 | 08/11/2011 | 08/19/2011 | 12 | 8 | 20 |
| 1108025 | PAH | MG/KG | 05-SS-110-0204 | 1108025-41 | NM | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-108-0204 | 1108025-33 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-108-0406 | 1108025-34 | SUR | 07/30/2011 | 08/04/2011 | 08/18/2011 | 5 | 14 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-108-0608 | 1108025-35 | NM | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-108-0608 | 1108025-35 | SUR | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-109-0002 | 1108025-36 | NM | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-109-0002 | 1108025-36 | SUR | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-109-0204 | 1108025-37 | SUR | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-109-0406 | 1108025-38 | NM | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-109-0406 | 1108025-38 | SUR | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-109-0608 | 1108025-39 | NM | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-109-0608 | 1108025-39 | SUR | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-110-0002 | 1108025-40 | NM | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | MG/KG | 05-SS-109-0204 | 1108025-37 | NM | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |

| SDG | SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1108025 | PAH | MG/KG | 05-SS-110-0002 | 1108025-40 | SUR | 07/30/2011 | 08/11/2011 | 08/18/2011 | 12 | 7 | 19 |
| 1108025 | PAH | UG/L | EQUIP BLANK #1 | 1108025-50 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | UG/L | EQUIP BLANK #2 | 1108025-51 | NM | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | UG/L | EQUIP BLANK #1 | 1108025-50 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | PAH | UG/L | EQUIP BLANK #2 | 1108025-51 | SUR | 07/30/2011 | 08/04/2011 | 08/17/2011 | 5 | 13 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-100-0002D | 1108025-09 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-100-0002 | 1108025-06 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-099-0002 | 1108025-10 | NM | 07/30/2011 | 08/12/2011 | 08/29/2011 | 13 | 17 | 30 |
| 1108025 | TPH | MG/KG | 05-SS-103-0204 | 1108025-12 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-103-0002 | 1108025-11 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-102-0204 | 1108025-05 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-102-0002 | 1108025-04 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-101-0406 | 1108025-03 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-101-0204 | 1108025-02 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-101-0002 | 1108025-01 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-100-0406 | 1108025-08 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-100-0204 | 1108025-07 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/KG | 05-SS-103-0406 | 1108025-13 | NM | 07/30/2011 | 08/12/2011 | 08/17/2011 | 13 | 5 | 18 |
| 1108025 | TPH | MG/L | EQUIP BLANK #1 | 1108025-50 | NM | 07/30/2011 | 08/04/2011 | 08/13/2011 | 5 | 9 | 14 |

| SDG | SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1108025 | TPH | MG/L | EQUIP BLANK #2 | 1108025-51 | NM | 07/30/2011 | 08/04/2011 | 08/13/2011 | 5 | 9 | 14 |

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1D11106 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1D11106-TUN1 | SEQ-TUN2.D | 04/19/11 14:38 |
| Cal Standard | 1D11106-CAL1 | SEQ-CAL1.D | 04/19/11 14:56 |
| Cal Standard | 1D11106-CAL2 | SEQ-CAL2.D | 04/19/11 15:22 |
| Cal Standard | 1D11106-CAL3 | SEQ-CAL3.D | 04/19/11 15:49 |
| Cal Standard | 1D11106-CAL4 | SEQ-CAL4.D | 04/19/11 16:15 |
| Cal Standard | 1D11106-CAL5 | SEQ-CAL5.D | 04/19/11 16:41 |
| Cal Standard | 1D11106-CAL6 | SEQ-CAL6.D | 04/19/11 17:07 |
| Cal Standard | 1D11106-CAL7 | SEQ-CAL7.D | 04/19/11 17:33 |
| Cal Standard | 1D11106-CAL8 | SEQ-CAL8.D | 04/19/11 18:00 |
| Cal Standard | 1D11106-CAL9 | SEQ-CAL9.D | 04/19/11 18:26 |
| Initial Cal Check | 1D11106-ICV1 | SEQ-ICV1.D | 04/19/11 18:52 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/19/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 14:38 |
| Sequence: | 1D11106 | Lab Sample ID: | 1D11106-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 55.9 | PASS |
| 68 | Less than 2% of 69 | 1.42 | PASS |
| 69 | Less than 200% of 198 | 55.6 | PASS |
| 70 | Less than 2% of 69 | 0.506 | PASS |
| 127 | 40 - 60% of 198 | 58.8 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.61 | PASS |
| 275 | 10 - 30% of 198 | 25.1 | PASS |
| 365 | 1 - 200% of 198 | 3.39 | PASS |
| 441 | 0.001 - 100% of 443 | 81.4 | PASS |
| 442 | 40 - 200% of 198 | 116 | PASS |
| 443 | 17 - 23% of 442 | 20 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11 14:56 4/19/11 18:26 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8172941 | 6.002518 | 7.944333 | 0.1047021 | | | CCC (30) | |
| Acenaphthylene | 1.207785 | 7.808994 | 7.734889 | 0.1182522 | | | 15 | |
| Anthracene | 1.161613 | 5.505861 | 9.805778 | 0.100823 | | | 15 | |
| Benzo(a)anthracene | 0.7794695 | 6.254565 | 12.93533 | 6.502969E-02 | | | 15 | |
| Benzo(a)pyrene | 1.060401 | 3.200109 | 14.769 | 4.143849E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.376623 | 14.1471 | 14.326 | 7.995191E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.8408092 | 6.210629 | 16.70156 | 7.861425E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.327054 | 4.862521 | 14.36322 | 0.079314 | | | 15 | |
| Chrysene | 0.7510425 | 7.301878 | 12.98111 | 7.297783E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.7885715 | 9.963425 | 16.36178 | 4.777576E-02 | | | 15 | |
| Fluoranthene | 1.110642 | 2.363902 | 11.19311 | 0.0831072 | | | CCC (30) | |
| Fluorene | 0.806718 | 3.496377 | 8.576445 | 9.781169E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8530656 | 6.095572 | 7.112 | 8.858856E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 0.9694231 | 7.8043 | 16.34633 | 6.789173E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8159287 | 7.985947 | 6.773 | 9.488666E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8312967 | 6.802917 | 6.660333 | 0.1047284 | | | 15 | |
| Naphthalene | 1.267467 | 7.448697 | 5.839111 | 9.533926E-02 | | | 15 | |
| Phenanthrene | 1.148831 | 2.40557 | 9.740667 | 0.1040327 | | | 15 | |
| Pyrene | 1.116922 | 2.023077 | 11.46378 | 7.377866E-02 | | | 15 | |
| Terphenyl-d14 | 0.6997344 | 3.349731 | 11.68256 | 6.766915E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1551379 | 13.70301 | 8.878286 | 0.1225255 | | | 15 | |
| Acenaphthene | 0.8172941 | 6.002518 | 7.944333 | 0.1047021 | | | CCC (30) | |
| Acenaphthylene | 1.207785 | 7.808994 | 7.734889 | 0.1182522 | | | 15 | |
| Anthracene | 1.161613 | 5.505861 | 9.805778 | 0.100823 | | | 15 | |
| Benzo(a)anthracene | 0.7794695 | 6.254565 | 12.93533 | 6.502969E-02 | | | 15 | |
| Benzo(a)pyrene | 1.060401 | 3.200109 | 14.769 | 4.143849E-02 | | | CCC (30) | |
| Benzo(b)fluoranthene | 1.376623 | 14.1471 | 14.326 | 7.995191E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.8408092 | 6.210629 | 16.70156 | 7.861425E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.327054 | 4.862521 | 14.36322 | 0.079314 | | | 15 | |
| Chrysene | 0.7510425 | 7.301878 | 12.98111 | 7.297783E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.7885715 | 9.963425 | 16.36178 | 4.777576E-02 | | | 15 | |
| Fluoranthene | 1.110642 | 2.363902 | 11.19311 | 0.0831072 | | | CCC (30) | |

# INITIAL CALIBRATION DATA (Continued)

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1112002 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 4/19/11 14:56 4/19/11 18:26 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Fluorene | 0.806718 | 3.496377 | 8.576445 | 9.781169E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.8530656 | 6.095572 | 7.112 | 8.858856E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 0.9694231 | 7.8043 | 16.34633 | 6.789173E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8159287 | 7.985947 | 6.773 | 9.488666E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8312967 | 6.802917 | 6.660333 | 0.1047284 | | | 15 | |
| Naphthalene | 1.267467 | 7.448697 | 5.839111 | 9.533926E-02 | | | 15 | |
| Phenanthrene | 1.148831 | 2.40557 | 9.740667 | 0.1040327 | | | 15 | |
| Pyrene | 1.116922 | 2.023077 | 11.46378 | 7.377866E-02 | | | 15 | |
| Terphenyl-d14 | 0.6997344 | 3.349731 | 11.68256 | 6.766915E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.1551379 | 13.70301 | 8.878286 | 0.1225255 | | | 15 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H22411 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1H22411-TUN1 | SEQ-TUN1.D | 08/11/11 10:06 |
| Calibration Check | 1H22411-CCV1 | SEQ-CCV1.D | 08/11/11 10:24 |
| LCS | 1H08006-BS2 | H08006L1.D | 08/11/11 17:16 |
| LCS Dup | 1H08006-BSD2 | H08006L2.D | 08/11/11 17:45 |
| Blank | 1H08006-BLK2 | H08006B1.D | 08/11/11 18:14 |
| 05-SS-103-0406 | 1108025-13 | 0802513.D | 08/11/11 19:12 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 08/11/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 10:06 |
| Sequence: | 1H22411 | Lab Sample ID: | 1H22411-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 33.9 | PASS |
| 68 | Less than 2% of 69 | 1.84 | PASS |
| 69 | Less than 200% of 198 | 39.1 | PASS |
| 70 | Less than 2% of 69 | 0.531 | PASS |
| 127 | 40 - 60% of 198 | 47.1 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.5 | PASS |
| 275 | 10 - 30% of 198 | 28.5 | PASS |
| 365 | 1 - 200% of 198 | 3.9 | PASS |
| 441 | 0.001 - 100% of 443 | 83.9 | PASS |
| 442 | 40 - 200% of 198 | 138 | PASS |
| 443 | 17 - 23% of 442 | 19.4 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1H22411 | Injection Date: | 08/11/11 |
| Lab Sample ID: | 1H22411-CCV1 | Injection Time: | 10:24 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.976 | 0.8172941 | 0.8133106 | | -0.5 | 20 |
| Acenaphthylene | A | 5.000 | 4.941 | 1.207785 | 1.193626 | | -1.2 | 20 |
| Anthracene | A | 5.000 | 4.508 | 1.161613 | 1.047328 | | -9.8 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.746 | 0.7794695 | 0.7399124 | | -5.1 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.645 | 1.060401 | 0.9850386 | | -7.1 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.659 | 1.376623 | 1.282758 | | -6.8 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.375 | 0.8408092 | 0.7357832 | | -12.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.551 | 1.327054 | 1.207828 | | -9.0 | 20 |
| Chrysene | A | 5.000 | 5.051 | 0.7510425 | 0.7587561 | | 1.0 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.746 | 0.7885715 | 0.7485843 | | -5.1 | 20 |
| Fluoranthene | A | 5.000 | 4.913 | 1.110642 | 1.091405 | | -1.7 | 20 |
| Fluorene | A | 5.000 | 4.979 | 0.806718 | 0.803393 | | -0.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.995 | 0.9694231 | 0.968417 | | -0.1 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.706 | 0.8159287 | 0.7679313 | | -5.9 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.847 | 0.8312967 | 0.8059113 | | -3.1 | 20 |
| Naphthalene | A | 5.000 | 5.170 | 1.267467 | 1.310457 | | 3.4 | 20 |
| Phenanthrene | A | 5.000 | 4.729 | 1.148831 | 1.086615 | | -5.4 | 20 |
| Pyrene | A | 5.000 | 4.873 | 1.116922 | 1.088597 | | -2.5 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.154 | 0.8530656 | 0.8793002 | | 3.1 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.694 | 0.6997344 | 0.6569716 | | -6.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1H08006 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-103-0406 | 1108025-13 | 08/09/11 16:52 | 15.60 | 1.00 |
| Blank | 1H08006-BLK2 | 08/09/11 16:52 | 15.00 | 1.00 |
| LCS | 1H08006-BS2 | 08/09/11 16:52 | 15.00 | 1.00 |
| LCS Dup | 1H08006-BSD2 | 08/09/11 16:52 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1H08006-BLK2 | File ID: | H08006B1.D |
| Sampled: | | Prepared: | | Analyzed: | 08/11/11 18:14 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1H08006 Sequence: 1H22411 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.267 | 3.320 | 102 | 14 - 129 | |
| Terphenyl-d14 | 3.267 | 2.880 | 88.2 | 14 - 129 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H23007 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1H23007-TUN1 | SEQ-TUN1.D | 08/17/11 09:43 |
| Calibration Check | 1H23007-CCV1 | SEQ-CCV1.D | 08/17/11 10:01 |
| LCS | 1H03008-BS3 | H03008L1.D | 08/17/11 10:30 |
| LCS Dup | 1H03008-BSD3 | H03008L2.D | 08/17/11 10:59 |
| Blank | 1H03008-BLK2 | H03008B1.D | 08/17/11 11:29 |
| EQUIP BLANK #1 | 1108025-50 | 0802550.D | 08/17/11 13:27 |
| EQUIP BLANK #2 | 1108025-51 | 0802551.D | 08/17/11 13:57 |
| LCS | 1H03010-BS1 | H03010L1.D | 08/17/11 14:56 |
| Blank | 1H03010-BLK1 | H03010B1.D | 08/17/11 15:26 |
| 05-SS-104-0002 | 1108025-14 | 0802514.D | 08/17/11 15:56 |
| 05-SS-104-0002 | 1H03010-MS1 | 0802514M.D | 08/17/11 16:25 |
| 05-SS-104-0002 | 1H03010-MSD1 | 0802514S.D | 08/17/11 16:55 |
| 05-SS-104-0204 | 1108025-15 | 0802515.D | 08/17/11 17:24 |
| 05-SS-104-0406 | 1108025-16 | 0802516.D | 08/17/11 17:54 |
| 05-SS-104-0608 | 1108025-17 | 0802517.D | 08/17/11 18:23 |
| 05-SS-105-0002 | 1108025-18 | 0802518.D | 08/17/11 18:52 |
| 05-SS-105-0204 | 1108025-19 | 0802519.D | 08/17/11 19:21 |
| 05-SS-105-0406 | 1108025-20 | 0802520.D | 08/17/11 19:49 |
| 05-SS-105-0608 | 1108025-21 | 0802521.D | 08/17/11 20:18 |
| 05-SS-105-0406D | 1108025-22 | 0802522.D | 08/17/11 20:47 |
| 05-SS-106-0002 | 1108025-23 | 0802523.D | 08/17/11 21:15 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 08/17/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 09:43 |
| Sequence: | 1H23007 | Lab Sample ID: | 1H23007-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 58.1 | PASS |
| 68 | Less than 2% of 69 | 1.76 | PASS |
| 69 | Less than 200% of 198 | 59.4 | PASS |
| 70 | Less than 2% of 69 | 0.521 | PASS |
| 127 | 40 - 60% of 198 | 59.9 | PASS |
| 197 | Less than 1% of 198 | 0.888 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.05 | PASS |
| 275 | 10 - 30% of 198 | 22.3 | PASS |
| 365 | 1 - 200% of 198 | 2.53 | PASS |
| 441 | 0.001 - 100% of 443 | 77.5 | PASS |
| 442 | 40 - 200% of 198 | 67.8 | PASS |
| 443 | 17 - 23% of 442 | 20.5 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1H23007 | Injection Date: | 08/17/11 |
| Lab Sample ID: | 1H23007-CCV1 | Injection Time: | 10:01 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.565 | 0.8172941 | 0.9096441 | | 11.3 | 20 |
| Acenaphthylene | A | 5.000 | 5.515 | 1.207785 | 1.332154 | | 10.3 | 20 |
| Anthracene | A | 5.000 | 5.093 | 1.161613 | 1.183307 | | 1.9 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.820 | 0.7794695 | 0.7514134 | | -3.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.798 | 1.060401 | 1.017593 | | -4.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.582 | 1.376623 | 1.261424 | | -8.4 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.015 | 0.8408092 | 0.843291 | | 0.3 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.636 | 1.327054 | 1.230462 | | -7.3 | 20 |
| Chrysene | A | 5.000 | 4.730 | 0.7510425 | 0.7104796 | | -5.4 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.924 | 0.7885715 | 0.7766059 | | -1.5 | 20 |
| Fluoranthene | A | 5.000 | 5.276 | 1.110642 | 1.172037 | | 5.5 | 20 |
| Fluorene | A | 5.000 | 5.568 | 0.806718 | 0.8983032 | | 11.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.208 | 0.9694231 | 1.009764 | | 4.2 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.424 | 0.8159287 | 0.8851867 | | 8.5 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.370 | 0.8312967 | 0.892804 | | 7.4 | 20 |
| Naphthalene | A | 5.000 | 5.741 | 1.267467 | 1.455383 | | 14.8 | 20 |
| Phenanthrene | A | 5.000 | 5.140 | 1.148831 | 1.181026 | | 2.8 | 20 |
| Pyrene | A | 5.000 | 5.340 | 1.116922 | 1.192879 | | 6.8 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.869 | 0.8530656 | 1.001393 | | 17.4 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.920 | 0.6997344 | 0.6885465 | | -1.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1H03008 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK #1 | 1108025-50 | 08/04/11 15:39 | 1,070.00 | 1.00 |
| EQUIP BLANK #2 | 1108025-51 | 08/04/11 15:39 | 1,070.00 | 1.00 |
| Blank | 1H03008-BLK2 | 08/04/11 15:39 | 1,000.00 | 1.00 |
| LCS | 1H03008-BS3 | 08/04/11 15:39 | 1,000.00 | 1.00 |
| LCS Dup | 1H03008-BSD3 | 08/04/11 15:39 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1H03008-BLK2 | File ID: | H03008B1.D |
| Sampled: | | Prepared: | | Analyzed: | 08/17/11 11:29 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1H03008 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | 0.173 | 0.0500 | 0.100 | 0.200 | I |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 34.58 | 69.2 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 56.85 | 114 | 34 - 167 | |

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1H03010 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-104-0002 | 1108025-14 | 08/04/11 15:54 | 15.20 | 1.00 |
| 05-SS-104-0204 | 1108025-15 | 08/04/11 15:54 | 15.30 | 1.00 |
| 05-SS-104-0406 | 1108025-16 | 08/04/11 15:54 | 15.70 | 1.00 |
| 05-SS-104-0608 | 1108025-17 | 08/04/11 15:54 | 15.10 | 1.00 |
| 05-SS-105-0002 | 1108025-18 | 08/04/11 15:54 | 15.40 | 1.00 |
| 05-SS-105-0204 | 1108025-19 | 08/04/11 15:54 | 15.10 | 1.00 |
| 05-SS-105-0406 | 1108025-20 | 08/04/11 15:54 | 15.20 | 1.00 |
| 05-SS-105-0608 | 1108025-21 | 08/04/11 15:54 | 15.50 | 1.00 |
| 05-SS-105-0406D | 1108025-22 | 08/04/11 15:54 | 15.30 | 1.00 |
| 05-SS-106-0002 | 1108025-23 | 08/04/11 15:54 | 15.40 | 1.00 |
| 05-SS-106-0204 | 1108025-24 | 08/04/11 15:54 | 15.50 | 1.00 |
| 05-SS-106-0406 | 1108025-25 | 08/04/11 15:54 | 15.70 | 1.00 |
| 05-SS-106-0608 | 1108025-26 | 08/04/11 15:54 | 15.20 | 1.00 |
| 05-SS-107-0002 | 1108025-27 | 08/04/11 15:54 | 15.10 | 1.00 |
| 05-SS-107-0204 | 1108025-28 | 08/04/11 15:54 | 15.20 | 1.00 |
| 05-SS-107-0406 | 1108025-29 | 08/04/11 15:54 | 15.10 | 1.00 |
| 05-SS-107-0608 | 1108025-30 | 08/04/11 15:54 | 15.60 | 1.00 |
| 05-SS-108-0002 | 1108025-31 | 08/04/11 15:54 | 15.10 | 1.00 |
| 05-SS-108-0002D | 1108025-32 | 08/04/11 15:54 | 15.80 | 1.00 |
| 05-SS-108-0204 | 1108025-33 | 08/04/11 15:54 | 15.90 | 1.00 |
| 05-SS-108-0406 | 1108025-34 | 08/04/11 15:54 | 15.30 | 1.00 |
| Blank | 1H03010-BLK1 | 08/04/11 15:54 | 15.00 | 1.00 |
| LCS | 1H03010-BS1 | 08/04/11 15:54 | 15.00 | 1.00 |
| 05-SS-104-0002 | 1H03010-MS1 | 08/04/11 15:54 | 15.30 | 1.00 |
| 05-SS-104-0002 | 1H03010-MSD1 | 08/04/11 15:54 | 15.60 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1H03010-BLK1 | File ID: | H03010B1.D |
| Sampled: | | Prepared: | | Analyzed: | 08/17/11 15:26 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1H03010 Sequence: 1H23007 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg wc | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | 0.00392 | 0.00167 | 0.00333 | 0.00667 | I |
| 50-32-8 | Benzo(a)pyrene | 0.00458 | 0.00167 | 0.00333 | 0.00667 | I |
| 205-99-2 | Benzo(b)fluoranthene | 0.00571 | 0.00167 | 0.00333 | 0.00667 | I |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | 0.00411 | 0.00167 | 0.00333 | 0.00667 | I |
| 218-01-9 | Chrysene | 0.00573 | 0.00167 | 0.00333 | 0.00667 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | 0.0104 | 0.00167 | 0.00333 | 0.00667 | |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.00236 | 0.00167 | 0.00333 | 0.00667 | I |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | 0.00424 | 0.00167 | 0.00333 | 0.00667 | I |
| 129-00-0 | Pyrene | 0.00855 | 0.00167 | 0.00333 | 0.00667 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.267 | 2.881 | 88.2 | 14 - 129 | |
| Terphenyl-d14 | 3.267 | 2.527 | 77.4 | 14 - 129 | |

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H23010 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1H23010-TUN1 | SEQ-TUN1.D | 08/18/11 13:19 |
| Calibration Check | 1H23010-CCV1 | SEQ-CCV1.D | 08/18/11 13:38 |
| LCS | 1H03011-BS2 | H03011L1.D | 08/18/11 14:07 |
| Blank | 1H03011-BLK2 | H03011B1.D | 08/18/11 14:37 |
| 05-SS-106-0204 | 1108025-24 | 0802524.D | 08/18/11 15:37 |
| 05-SS-106-0406 | 1108025-25 | 0802525.D | 08/18/11 16:06 |
| 05-SS-106-0608 | 1108025-26 | 0802526.D | 08/18/11 16:35 |
| 05-SS-107-0002 | 1108025-27 | 0802527.D | 08/18/11 17:03 |
| 05-SS-107-0204 | 1108025-28 | 0802528.D | 08/18/11 17:32 |
| 05-SS-107-0406 | 1108025-29 | 0802529.D | 08/18/11 18:00 |
| 05-SS-107-0608 | 1108025-30 | 0802530.D | 08/18/11 18:28 |
| 05-SS-108-0002 | 1108025-31 | 0802531.D | 08/18/11 18:55 |
| 05-SS-108-0002D | 1108025-32 | 0802532.D | 08/18/11 19:23 |
| 05-SS-108-0204 | 1108025-33 | 0802533.D | 08/18/11 19:51 |
| 05-SS-108-0406 | 1108025-34 | 0802534.D | 08/18/11 20:19 |
| 05-SS-108-0608 | 1108025-35 | 0802535.D | 08/18/11 20:47 |
| 05-SS-109-0002 | 1108025-36 | 0802536.D | 08/18/11 21:14 |
| 05-SS-109-0204 | 1108025-37 | 0802537.D | 08/18/11 21:42 |
| 05-SS-109-0406 | 1108025-38 | 0802538.D | 08/18/11 22:09 |
| 05-SS-109-0608 | 1108025-39 | 0802539.D | 08/18/11 22:37 |
| 05-SS-110-0002 | 1108025-40 | 0802540.D | 08/18/11 23:05 |
| 05-SS-110-0204 | 1108025-41 | 0802541.D | 08/18/11 23:33 |
| 05-SS-110-0406 | 1108025-42 | 0802542.D | 08/19/11 00:01 |
| 05-SS-110-0608 | 1108025-43 | 0802543.D | 08/19/11 00:29 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 08/18/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 13:19 |
| Sequence: | 1H23010 | Lab Sample ID: | 1H23010-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 40.7 | PASS |
| 68 | Less than 2% of 69 | 1.55 | PASS |
| 69 | Less than 200% of 198 | 44.8 | PASS |
| 70 | Less than 2% of 69 | 0.419 | PASS |
| 127 | 40 - 60% of 198 | 51.2 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.58 | PASS |
| 275 | 10 - 30% of 198 | 24.7 | PASS |
| 365 | 1 - 200% of 198 | 3.63 | PASS |
| 441 | 0.001 - 100% of 443 | 80.9 | PASS |
| 442 | 40 - 200% of 198 | 102 | PASS |
| 443 | 17 - 23% of 442 | 20.5 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1H23010 | Injection Date: | 08/18/11 |
| Lab Sample ID: | 1H23010-CCV1 | Injection Time: | 13:38 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.436 | 0.8172941 | 0.8885808 | | 8.7 | 20 |
| Acenaphthylene | A | 5.000 | 5.448 | 1.207785 | 1.316109 | | 9.0 | 20 |
| Anthracene | A | 5.000 | 5.034 | 1.161613 | 1.169527 | | 0.7 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.028 | 0.7794695 | 0.7837661 | | 0.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.317 | 1.060401 | 1.127729 | | 6.3 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.014 | 1.376623 | 1.380562 | | 0.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.628 | 0.8408092 | 0.9463761 | | 12.6 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.798 | 1.327054 | 1.273545 | | -4.0 | 20 |
| Chrysene | A | 5.000 | 5.014 | 0.7510425 | 0.7531365 | | 0.3 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.313 | 0.7885715 | 0.8379823 | | 6.3 | 20 |
| Fluoranthene | A | 5.000 | 5.122 | 1.110642 | 1.137819 | | 2.4 | 20 |
| Fluorene | A | 5.000 | 5.639 | 0.806718 | 0.9097977 | | 12.8 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.751 | 0.9694231 | 0.9211976 | | -5.0 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.350 | 0.8159287 | 0.8730635 | | 7.0 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.380 | 0.8312967 | 0.8944804 | | 7.6 | 20 |
| Naphthalene | A | 5.000 | 5.686 | 1.267467 | 1.441309 | | 13.7 | 20 |
| Phenanthrene | A | 5.000 | 4.999 | 1.148831 | 1.148623 | | -0.02 | 20 |
| Pyrene | A | 5.000 | 5.134 | 1.116922 | 1.146817 | | 2.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.899 | 0.8530656 | 1.006458 | | 18.0 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.143 | 0.6997344 | 0.7196954 | | 2.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270C

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1H03011 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-108-0608 | 1108025-35 | 08/11/11 10:00 | 15.10 | 1.00 |
| 05-SS-109-0002 | 1108025-36 | 08/11/11 10:00 | 15.20 | 1.00 |
| 05-SS-109-0204 | 1108025-37 | 08/11/11 10:00 | 15.40 | 1.00 |
| 05-SS-109-0406 | 1108025-38 | 08/11/11 10:00 | 15.40 | 1.00 |
| 05-SS-109-0608 | 1108025-39 | 08/11/11 10:00 | 15.50 | 1.00 |
| 05-SS-110-0002 | 1108025-40 | 08/11/11 10:00 | 15.70 | 1.00 |
| 05-SS-110-0204 | 1108025-41 | 08/11/11 10:00 | 15.60 | 1.00 |
| 05-SS-110-0406 | 1108025-42 | 08/11/11 10:00 | 15.10 | 1.00 |
| 05-SS-110-0608 | 1108025-43 | 08/11/11 10:00 | 15.80 | 1.00 |
| 05-SS-111-0002 | 1108025-44 | 08/11/11 10:00 | 15.40 | 1.00 |
| 05-SS-111-0204 | 1108025-45 | 08/11/11 10:00 | 15.30 | 1.00 |
| 05-SS-111-0406 | 1108025-46 | 08/11/11 10:00 | 15.30 | 1.00 |
| 05-SS-111-0608 | 1108025-47 | 08/11/11 10:00 | 15.10 | 1.00 |
| 05-SS-111-0608D | 1108025-48 | 08/11/11 10:00 | 15.10 | 1.00 |
| 05-SS-110-0406D | 1108025-49 | 08/11/11 10:00 | 15.10 | 1.00 |
| Blank | 1H03011-BLK2 | 08/11/11 10:00 | 15.00 | 1.00 |
| LCS | 1H03011-BS2 | 08/11/11 10:00 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1H03011-BLK2 | File ID: | H03011B1.D |
| Sampled: | | Prepared: | | Analyzed: | 08/18/11 14:37 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1H03011 Sequence: 1H23010 Calibration: 1112002 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 208-96-8 | Acenaphthylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 120-12-7 | Anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.00167 | 0.00333 | 0.00667 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 218-01-9 | Chrysene | | 0.00167 | 0.00333 | 0.00667 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.00167 | 0.00333 | 0.00667 | U |
| 206-44-0 | Fluoranthene | | 0.00167 | 0.00333 | 0.00667 | U |
| 86-73-7 | Fluorene | | 0.00167 | 0.00333 | 0.00667 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 91-20-3 | Naphthalene | | 0.00167 | 0.00333 | 0.00667 | U |
| 85-01-8 | Phenanthrene | | 0.00167 | 0.00333 | 0.00667 | U |
| 129-00-0 | Pyrene | | 0.00167 | 0.00333 | 0.00667 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.267 | 3.564 | 109 | 14 - 129 | |
| Terphenyl-d14 | 3.267 | 3.321 | 102 | 14 - 129 | |

# ANALYSIS SEQUENCE SUMMARY
## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H23109 | Instrument: | MS-BNA4 |
| Calibration: | 1112002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1H23109-TUN1 | SEQ-TUN1.D | 08/19/11 11:14 |
| Calibration Check | 1H23109-CCV1 | SEQ-CCV1.D | 08/19/11 11:33 |
| 05-SS-111-0204 | 1108025-45 | 0802545.D | 08/19/11 12:02 |
| 05-SS-111-0406 | 1108025-46 | 0802546.D | 08/19/11 12:31 |
| 05-SS-111-0608 | 1108025-47 | 0802547.D | 08/19/11 13:00 |
| 05-SS-111-0608D | 1108025-48 | 0802548.D | 08/19/11 13:29 |
| 05-SS-110-0406D | 1108025-49 | 0802549.D | 08/19/11 13:58 |
| 05-SS-111-0002 | 1108025-44 | 0802544.D | 08/19/11 17:18 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 08/19/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 11:14 |
| Sequence: | 1H23109 | Lab Sample ID: | 1H23109-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 41.8 | PASS |
| 68 | Less than 2% of 69 | 1.4 | PASS |
| 69 | Less than 200% of 198 | 47.5 | PASS |
| 70 | Less than 2% of 69 | 0.439 | PASS |
| 127 | 40 - 60% of 198 | 52.6 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.63 | PASS |
| 275 | 10 - 30% of 198 | 26 | PASS |
| 365 | 1 - 200% of 198 | 3.65 | PASS |
| 441 | 0.001 - 100% of 443 | 81.4 | PASS |
| 442 | 40 - 200% of 198 | 117 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270C

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | MS-BNA4 | Calibration: | 1112002 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 04/19/11 00:00 |
| Sequence: | 1H23109 | Injection Date: | 08/19/11 |
| Lab Sample ID: | 1H23109-CCV1 | Injection Time: | 11:33 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.320 | 0.8172941 | 0.8695709 | | 6.4 | 20 |
| Acenaphthylene | A | 5.000 | 5.250 | 1.207785 | 1.268292 | | 5.0 | 20 |
| Anthracene | A | 5.000 | 5.085 | 1.161613 | 1.181283 | | 1.7 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.538 | 0.7794695 | 0.8634312 | | 10.8 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.201 | 1.060401 | 1.103067 | | 4.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.640 | 1.376623 | 1.277674 | | -7.2 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.666 | 0.8408092 | 0.9528719 | | 13.3 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.847 | 1.327054 | 1.286415 | | -3.1 | 20 |
| Chrysene | A | 5.000 | 5.615 | 0.7510425 | 0.8434314 | | 12.3 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.289 | 0.7885715 | 0.8341859 | | 5.8 | 20 |
| Fluoranthene | A | 5.000 | 5.420 | 1.110642 | 1.203943 | | 8.4 | 20 |
| Fluorene | A | 5.000 | 5.459 | 0.806718 | 0.880774 | | 9.2 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.633 | 0.9694231 | 0.8982568 | | -7.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.026 | 0.8159287 | 0.8201189 | | 0.5 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.048 | 0.8312967 | 0.8393187 | | 1.0 | 20 |
| Naphthalene | A | 5.000 | 5.330 | 1.267467 | 1.351034 | | 6.6 | 20 |
| Phenanthrene | A | 5.000 | 5.148 | 1.148831 | 1.182832 | | 3.0 | 20 |
| Pyrene | A | 5.000 | 5.402 | 1.116922 | 1.206663 | | 8.0 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.532 | 0.8530656 | 0.943929 | | 10.7 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.329 | 0.6997344 | 0.7457941 | | 6.6 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H21304 | Instrument: | GL-GCFID2 |
| Calibration: | 1213001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1H21304-CAL1 | 002F0301.D | 07/28/11 19:06 |
| Cal Standard | 1H21304-CAL2 | 003F0401.D | 07/28/11 19:49 |
| Cal Standard | 1H21304-CAL3 | 004F0501.D | 07/28/11 20:32 |
| Cal Standard | 1H21304-CAL4 | 005F0601.D | 07/28/11 21:14 |
| Cal Standard | 1H21304-CAL5 | 006F0701.D | 07/28/11 21:57 |
| Cal Standard | 1H21304-CAL6 | 007F0801.D | 07/28/11 22:40 |
| Initial Cal Check | 1H21304-ICV2 | 003F0301.D | 07/30/11 14:02 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H21304 | Instrument: | GL-GCFID2 |
| Calibration: | 1213001 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11G0737 | Flpro CAL1 8500ppm | 1H21304-CAL1 | 002F0301.D | 07/28/11 19:06 |
| 11G0738 | FLPRO CAL2 5950ppm | 1H21304-CAL2 | 003F0401.D | 07/28/11 19:49 |
| 11G0739 | FLPRO CAL3 4250ppm | 1H21304-CAL3 | 004F0501.D | 07/28/11 20:32 |
| 11G0740 | FLPRO CAL4 2550ppm | 1H21304-CAL4 | 005F0601.D | 07/28/11 21:14 |
| 11G0741 | FLPRO CAL5 850ppm | 1H21304-CAL5 | 006F0701.D | 07/28/11 21:57 |
| 11G0742 | FLPRO CAL6 85ppm | 1H21304-CAL6 | 007F0801.D | 07/28/11 22:40 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1213001 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 7/28/11 19:06 7/28/11 22:40 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1486.229 | 7.419445 | 2.612 | 1.665374E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1671.441 | 54.89143 | 10.295 | 0.6283349 | | 0.9947985 | 0.99 | |
| o-Terphenyl | 2328.34 | 29.65843 | 15.98917 | 0.5307517 | | 0.9931937 | 0.99 | |
| Petroleum Range Organics | 1486.229 | 7.419445 | 2.612 | 1.665374E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1671.441 | 54.89143 | 10.295 | 0.6283349 | | 0.9947985 | 0.99 | |
| o-Terphenyl | 2328.34 | 29.65843 | 15.98917 | 0.5307517 | | 0.9931937 | 0.99 | |

# ANALYSIS SEQUENCE SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H22811 | Instrument: | GL-GCFID2 |
| Calibration: | 1213001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1H22811-CCV1 | 002F0201.D | 08/12/11 15:49 |
| Calibration Check | 1H22811-CCV2 | 013F1301.D | 08/12/11 23:37 |
| Blank | 1H03009-BLK1 | 020F2001.D | 08/13/11 04:33 |
| LCS | 1H03009-BS1 | 021F2101.D | 08/13/11 05:16 |
| LCS Dup | 1H03009-BSD1 | 022F2201.D | 08/13/11 05:58 |
| Calibration Check | 1H22811-CCV3 | 024F2401.D | 08/13/11 07:23 |
| EQUIP BLANK #1 | 1108025-50 | 025F2501.D | 08/13/11 08:05 |
| EQUIP BLANK #2 | 1108025-51 | 026F2601.D | 08/13/11 08:48 |
| Calibration Check | 1H22811-CCV4 | 027F2701.D | 08/13/11 09:30 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1213001 |
| Lab File ID: | 002F0201.D | Calibration Date: | 08/01/11 10:20 |
| Sequence: | 1H22811 | Injection Date: | 08/12/11 |
| Lab Sample ID: | 1H22811-CCV1 | Injection Time: | 15:49 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3487 | 1486.229 | 1219.016 | | -18.0 | 25 |
| 2-Fluorobiphenyl | Q | 25.00 | 21.85 | 1671.441 | 1710.76 | | -12.6 | 25 |
| o-Terphenyl | Q | 25.00 | 20.65 | 2328.34 | 2146.6 | | -17.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1213001 |
| Lab File ID: | 013F1301.D | Calibration Date: | 08/01/11 10:20 |
| Sequence: | 1H22811 | Injection Date: | 08/12/11 |
| Lab Sample ID: | 1H22811-CCV2 | Injection Time: | 23:37 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3716 | 1486.229 | 1299.185 | | -12.6 | 25 |
| 2-Fluorobiphenyl | Q | 25.00 | 24.85 | 1671.441 | 2013.72 | | -0.6 | 25 |
| o-Terphenyl | Q | 25.00 | 23.02 | 2328.34 | 2422.6 | | -7.9 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1213001 |
| Lab File ID: | 024F2401.D | Calibration Date: | 08/01/11 10:20 |
| Sequence: | 1H22811 | Injection Date: | 08/13/11 |
| Lab Sample ID: | 1H22811-CCV3 | Injection Time: | 07:23 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3940 | 1486.229 | 1377.421 | | -7.3 | 25 |
| 2-Fluorobiphenyl | Q | 25.00 | 25.88 | 1671.441 | 2118.2 | | 3.5 | 25 |
| o-Terphenyl | Q | 25.00 | 24.15 | 2328.34 | 2556.8 | | -3.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1213001 |
| Lab File ID: | 027F2701.D | Calibration Date: | 08/01/11 10:20 |
| Sequence: | 1H22811 | Injection Date: | 08/13/11 |
| Lab Sample ID: | 1H22811-CCV4 | Injection Time: | 09:30 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3894 | 1486.229 | 1361.291 | | -8.4 | 25 |
| 2-Fluorobiphenyl | Q | 25.00 | 24.91 | 1671.441 | 2019.72 | | -0.4 | 25 |
| o-Terphenyl | Q | 25.00 | 23.52 | 2328.34 | 2482.2 | | -5.9 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1H03009 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| EQUIP BLANK #1 | 1108025-50 | 08/04/11 14:12 | 1,080.00 | 2.00 |
| EQUIP BLANK #2 | 1108025-51 | 08/04/11 14:12 | 1,000.00 | 2.00 |
| Blank | 1H03009-BLK1 | 08/04/11 14:12 | 1,000.00 | 2.00 |
| LCS | 1H03009-BS1 | 08/04/11 14:12 | 1,000.00 | 2.00 |
| LCS Dup | 1H03009-BSD1 | 08/04/11 14:12 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1H03009-BLK1 | File ID: | 020F2001.D |
| Sampled: | | Prepared: | | Analyzed: | 08/13/11 04:33 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 1H03009 Sequence: 1H22811 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.05713 | 114 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.04952 | 99.0 | 82 - 142 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H23106 | Instrument: | GL-GCFID2 |
| Calibration: | 1213001 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1H23106-CCV1 | 002F0301.D | 08/16/11 15:26 |
| Calibration Check | 1H23106-CCV3 | 024F2501.D | 08/17/11 06:58 |
| Blank | 1H03012-BLK1 | 025F2601.D | 08/17/11 07:40 |
| LCS | 1H03012-BS1 | 026F2701.D | 08/17/11 08:23 |
| 05-SS-101-0002 | 1108025-01 | 027F2801.D | 08/17/11 09:06 |
| 05-SS-101-0204 | 1108025-02 | 028F2901.D | 08/17/11 09:48 |
| 05-SS-101-0406 | 1108025-03 | 029F3001.D | 08/17/11 10:31 |
| 05-SS-102-0002 | 1108025-04 | 030F3101.D | 08/17/11 11:13 |
| 05-SS-102-0204 | 1108025-05 | 031F3201.D | 08/17/11 11:56 |
| 05-SS-100-0002 | 1108025-06 | 032F3301.D | 08/17/11 12:39 |
| 05-SS-100-0204 | 1108025-07 | 033F3401.D | 08/17/11 13:21 |
| 05-SS-100-0406 | 1108025-08 | 034F3501.D | 08/17/11 14:04 |
| Calibration Check | 1H23106-CCV4 | 035F3601.D | 08/17/11 14:47 |
| 05-SS-100-0002D | 1108025-09 | 036F3701.D | 08/17/11 15:30 |
| 05-SS-103-0002 | 1108025-11 | 038F3901.D | 08/17/11 16:55 |
| 05-SS-103-0204 | 1108025-12 | 039F4001.D | 08/17/11 17:38 |
| 05-SS-103-0406 | 1108025-13 | 040F4101.D | 08/17/11 18:20 |
| 05-SS-103-0406 | 1H03012-MS1 | 041F4201.D | 08/17/11 19:03 |
| 05-SS-103-0406 | 1H03012-MSD1 | 042F4301.D | 08/17/11 19:46 |
| Calibration Check | 1H23106-CCV5 | 046F4701.D | 08/17/11 22:35 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1213001 |
| Lab File ID: | 002F0301.D | Calibration Date: | 08/01/11 10:20 |
| Sequence: | 1H23106 | Injection Date: | 08/16/11 |
| Lab Sample ID: | 1H23106-CCV1 | Injection Time: | 15:26 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3728 | 1486.229 | 1303.435 | | -12.3 | 25 |
| 2-Fluorobiphenyl | Q | 25.00 | 26.68 | 1671.441 | 2200.04 | | 6.7 | 25 |
| o-Terphenyl | Q | 25.00 | 24.05 | 2328.34 | 2544.88 | | -3.8 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1213001 |
| Lab File ID: | 024F2501.D | Calibration Date: | 08/01/11 10:20 |
| Sequence: | 1H23106 | Injection Date: | 08/17/11 |
| Lab Sample ID: | 1H23106-CCV3 | Injection Time: | 06:58 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3894 | 1486.229 | 1361.334 | | -8.4 | 25 |
| 2-Fluorobiphenyl | Q | 25.00 | 27.36 | 1671.441 | 2270.24 | | 9.4 | 25 |
| o-Terphenyl | Q | 25.00 | 24.88 | 2328.34 | 2643.64 | | -0.5 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1213001 |
| Lab File ID: | 035F3601.D | Calibration Date: | 08/01/11 10:20 |
| Sequence: | 1H23106 | Injection Date: | 08/17/11 |
| Lab Sample ID: | 1H23106-CCV4 | Injection Time: | 14:47 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4127 | 1486.229 | 1442.935 | | -2.9 | 25 |
| 2-Fluorobiphenyl | Q | 25.00 | 28.79 | 1671.441 | 2417.44 | | 15.2 | 25 |
| o-Terphenyl | Q | 25.00 | 26.58 | 2328.34 | 2847.52 | | 6.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID2 | Calibration: | 1213001 |
| Lab File ID: | 046F4701.D | Calibration Date: | 08/01/11 10:20 |
| Sequence: | 1H23106 | Injection Date: | 08/17/11 |
| Lab Sample ID: | 1H23106-CCV5 | Injection Time: | 22:35 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3898 | 1486.229 | 1362.73 | | -8.3 | 25 |
| 2-Fluorobiphenyl | Q | 25.00 | 26.65 | 1671.441 | 2197.36 | | 6.6 | 25 |
| o-Terphenyl | Q | 25.00 | 27.10 | 2328.34 | 2910.12 | | 8.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: 1108025

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTO JM26 Saufley

Batch: 1H03012 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-101-0002 | 1108025-01 | 08/12/11 09:38 | 15.80 | 2.00 |
| 05-SS-101-0204 | 1108025-02 | 08/12/11 09:38 | 15.50 | 2.00 |
| 05-SS-101-0406 | 1108025-03 | 08/12/11 09:38 | 15.30 | 2.00 |
| 05-SS-102-0002 | 1108025-04 | 08/12/11 09:38 | 15.20 | 2.00 |
| 05-SS-102-0204 | 1108025-05 | 08/12/11 09:38 | 15.40 | 2.00 |
| 05-SS-100-0002 | 1108025-06 | 08/12/11 09:38 | 15.70 | 2.00 |
| 05-SS-100-0204 | 1108025-07 | 08/12/11 09:38 | 15.20 | 2.00 |
| 05-SS-100-0406 | 1108025-08 | 08/12/11 09:38 | 15.60 | 2.00 |
| 05-SS-100-0002D | 1108025-09 | 08/12/11 09:38 | 15.10 | 2.00 |
| 05-SS-099-0002 | 1108025-10 | 08/12/11 09:38 | 15.20 | 2.00 |
| 05-SS-103-0002 | 1108025-11 | 08/12/11 09:38 | 15.70 | 2.00 |
| 05-SS-103-0204 | 1108025-12 | 08/12/11 09:38 | 15.50 | 2.00 |
| 05-SS-103-0406 | 1108025-13 | 08/12/11 09:38 | 15.50 | 2.00 |
| Blank | 1H03012-BLK1 | 08/12/11 09:38 | 15.00 | 2.00 |
| LCS | 1H03012-BS1 | 08/12/11 09:38 | 15.00 | 2.00 |
| 05-SS-103-0406 | 1H03012-MS1 | 08/12/11 09:38 | 15.30 | 2.00 |
| 05-SS-103-0406 | 1H03012-MSD1 | 08/12/11 09:38 | 15.20 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1108025 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTO JM26 Saufley | |
| Matrix: | | Laboratory ID: | 1H03012-BLK1 | File ID: | 025F2601.D |
| Sampled: | | Prepared: | | Analyzed: | 08/17/11 07:40 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1H03012 Sequence: 1H23106 Calibration: 1213001 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg wet) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 0.000 | | 50 - 150 | U |
| o-Terphenyl | 3.333 | 1.417 | 42.5 | 35 - 140 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H24212 | Instrument: | GL-GCFID |
| Calibration: | 1242006 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 1H24212-CAL6 | 002B0201.D | 08/29/11 14:49 |
| Cal Standard | 1H24212-CAL5 | 003B0301.D | 08/29/11 15:23 |
| Cal Standard | 1H24212-CAL4 | 004B0401.D | 08/29/11 15:58 |
| Cal Standard | 1H24212-CAL3 | 005B0501.D | 08/29/11 16:32 |
| Cal Standard | 1H24212-CAL2 | 007B0701.D | 08/29/11 19:17 |
| Cal Standard | 1H24212-CAL1 | 008B0801.D | 08/29/11 19:51 |
| Initial Cal Check | 1H24212-ICV1 | 009B0901.D | 08/29/11 20:25 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H24212 | Instrument: | GL-GCFID |
| Calibration: | 1242006 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 11H0600 | FLPRO CAL6 85ppm | 1H24212-CAL6 | 002B0201.D | 08/29/11 14:49 |
| 11H0599 | FLPRO CAL5 850ppm | 1H24212-CAL5 | 003B0301.D | 08/29/11 15:23 |
| 11H0598 | FLPRO CAL4 2550ppm | 1H24212-CAL4 | 004B0401.D | 08/29/11 15:58 |
| 11H0597 | FLPRO CAL3 4250ppm | 1H24212-CAL3 | 005B0501.D | 08/29/11 16:32 |
| 11H0596 | FLPRO CAL2 5950ppm | 1H24212-CAL2 | 007B0701.D | 08/29/11 19:17 |
| 11H0595 | FLPRO CAL1 8500ppm | 1H24212-CAL1 | 008B0801.D | 08/29/11 19:51 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Calibration: | 1242006 | Instrument: | GL-GCFID |
| Matrix: | Water | Calibration Dates: | 8/29/11 14:49 8/29/11 19:51 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1101.474 | 9.94984 | 3.587 | 1.758689E-02 | | | 20 | |
| 2-Fluorobiphenyl | 665.4034 | 56.70537 | 8.525 | 0.2486251 | 0.9957767 | | 0.995 | |
| o-Terphenyl | 1534.301 | 2.359246 | 10.6722 | 0.2413076 | | | 20 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Sequence: | 1H24213 | Instrument: | GL-GCFID |
| Calibration: | 1242006 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 1H24213-CCV1 | 010B1001.D | 08/29/11 20:59 |
| 05-SS-099-0002 | 1108025-10 | 012B1201.D | 08/29/11 22:07 |
| Calibration Check | 1H24213-CCV2 | 013B1301.D | 08/29/11 22:41 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID | Calibration: | 1242006 |
| Lab File ID: | 010B1001.D | Calibration Date: | 08/30/11 23:39 |
| Sequence: | 1H24213 | Injection Date: | 08/29/11 |
| Lab Sample ID: | 1H24213-CCV1 | Injection Time: | 20:59 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 5282 | 1101.474 | 1369.071 | | 24.3 | 25 |
| 2-Fluorobiphenyl | L | 25.00 | 27.95 | 665.4034 | 971.16 | | 11.8 | 25 |
| o-Terphenyl | A | 25.00 | 28.82 | 1534.301 | 1768.72 | | 15.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1108025 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTO JM26 Saufley |
| Instrument ID: | GL-GCFID | Calibration: | 1242006 |
| Lab File ID: | 013B1301.D | Calibration Date: | 08/30/11 23:39 |
| Sequence: | 1H24213 | Injection Date: | 08/29/11 |
| Lab Sample ID: | 1H24213-CCV2 | Injection Time: | 22:41 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 5054 | 1101.474 | 1309.835 | | 18.9 | 25 |
| 2-Fluorobiphenyl | L | 25.00 | 29.01 | 665.4034 | 1018.72 | | 16.0 | 25 |
| o-Terphenyl | A | 25.00 | 27.96 | 1534.301 | 1715.72 | | 11.8 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** 1108025

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid **Instrument:** GL-GCFID

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |
| | 0.170 | 0.510 | mg/Kg | FLPRO |

# METHOD DETECTION AND REPORTING LIMITS

**Laboratory:** Empirical Laboratories, LLC **SDG:** 1108025

**Client:** Tetra Tech NUS, Inc. (T010) **Project:** NAS Pensacola CTO JM26 Saufley

**Matrix:** Solid **Instrument:** GL-GCFID2

| Analyte | MDL | MRL | Units | Method |
|---|---|---|---|---|
| Petroleum Range Organics | 11.0 | 44.0 | mg/Kg | FLPRO |
| | 0.170 | 0.680 | mg/L | FLPRO |
| | 0.170 | 0.510 | mg/Kg | FLPRO |

**Tetra Tech INC** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **FEBRUARY 1, 2012** |
| **FROM:** | **JOSEPH KALINYAK** | **COPIES:** | **DV FILE** |
| **SUBJECT:** | **ORGANIC DATA VALIDATION - PAH<br>SAUFLEY FIELD, CTO JM26<br>SDG 1112051** | | |

**SAMPLES:** 17 / Soil / PAH

| | | |
|---|---|---|
| 05-SS-112-0002 | 05-SS-112-0406 | 05-SS-113-0002 |
| 05-SS-113-0406 | 05-SS-114-0002 | 05-SS-114-0406 |
| 05-SS-115-0002 | 05-SS-115-0406 | 05-SS-116-0002 |
| 05-SS-117-0002 | 05-SS-117-0406 | 05-SS-118-0406 |
| 05-SS-119-0406 | 05-SS-120-0406 | 05-SS-121-0406 |
| FD12061101 | FD12061102 | |

1 / Aqueous / PAH

FB12061101

## OVERVIEW

The sample set for Saufley Field, CTO JM26, SDG 112051 consisted of seventeen (17) soil samples and one (1) aqueous field blank sample. All samples were analyzed for polynuclear aromatic hydrocarbons (PAH) as listed above. Two (2) field duplicate sample pairs were included in this sample delivery group (SDG); FD12061101 / 05-SS-115-0002 and FD12061102 / 05-SS-118-0406.

The samples were collected by TetraTech on December 6, 2011 and analyzed by Empirical Laboratories LLC. All analyses were conducted using USEPA SW-846 Method 8270D analytical and reporting protocols. The sample data in this SDG were validated with regard to the following list of parameters.

* • Data Completeness
* • Holding Times
* • GC/MS Tuning
* • Initial and Continuing Calibration
* • Laboratory Blank Analyses
* • Field Duplicate Precision
* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

## PAH

No issues were identified.

## ADDITIONAL COMMENTS

Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit.

Sample results were reported to the method detection limits (MDL).

The samples listed below were diluted for PAH analysis.

| Samples | Dilution |
|---|---|
| 05-SS-112-0002 | 5X |
| 05-SS-114-0002 | 5X |
| 05-SS-117-0002 | 5X |

**EXECUTIVE SUMMARY**

**Laboratory Performance Issues:** None.

**Other factors affecting data quality:** Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

The data for these analyses were reviewed with reference to the USEPA SW-846 Method 8270D, EPA Functional Guidelines for Organic Data Validation (October 1999) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

TetraTech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

## Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

## DATA QUALIFICATION CODE (QUAL CODE)

**Qualifier Codes:**

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | FB12061101 | | |
| **SDG: 1112051** | LAB_ID | 1112051-11 | | |
| **FRACTION: PAH** | SAMP_DATE | 12/6/2011 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0467 | U | |
| 2-METHYLNAPHTHALENE | | 0.0467 | U | |
| ACENAPHTHENE | | 0.0467 | U | |
| ACENAPHTHYLENE | | 0.0467 | U | |
| ANTHRACENE | | 0.0467 | U | |
| BENZO(A)ANTHRACENE | | 0.0467 | U | |
| BENZO(A)PYRENE | | 0.0467 | U | |
| BENZO(B)FLUORANTHENE | | 0.0467 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0467 | U | |
| BENZO(K)FLUORANTHENE | | 0.0467 | U | |
| CHRYSENE | | 0.0467 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0467 | U | |
| FLUORANTHENE | | 0.0467 | U | |
| FLUORENE | | 0.0467 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0467 | U | |
| NAPHTHALENE | | 0.0467 | U | |
| PHENANTHRENE | | 0.0935 | U | |
| PYRENE | | 0.0467 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-112-0002 | | | 05-SS-112-0406 | | | 05-SS-113-0002 | | | 05-SS-113-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1112051 | LAB_ID | 1112051-01 | | | 1112051-02 | | | 1112051-03 | | | 1112051-04 | | |
| FRACTION: PAH | SAMP_DATE | 12/6/2011 | | | 12/6/2011 | | | 12/6/2011 | | | 12/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 92.5 | | | 81.7 | | | 92.7 | | | 79.0 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 8.68 | U | | 2.02 | U | | 1.76 | U | | 2.03 | U | |
| 2-METHYLNAPHTHALENE | | 8.68 | U | | 2.02 | U | | 1.76 | U | | 2.03 | U | |
| ACENAPHTHENE | | 8.68 | U | | 2.02 | U | | 2.37 | J | P | 2.03 | U | |
| ACENAPHTHYLENE | | 420 | | | 3.62 | J | P | 29.3 | | | 2.51 | J | P |
| ANTHRACENE | | 95.3 | | | 2.02 | U | | 9.67 | | | 2.03 | U | |
| BENZO(A)ANTHRACENE | | 359 | | | 6.38 | J | P | 60.8 | | | 4.78 | J | P |
| BENZO(A)PYRENE | | 609 | | | 11.4 | | | 90.6 | | | 6.97 | J | P |
| BENZO(B)FLUORANTHENE | | 916 | | | 15.3 | | | 134 | | | 11.7 | | |
| BENZO(G,H,I)PERYLENE | | 1410 | | | 13.1 | | | 96.8 | | | 7.7 | J | P |
| BENZO(K)FLUORANTHENE | | 280 | | | 7.19 | J | P | 52.1 | | | 3.47 | J | P |
| CHRYSENE | | 381 | | | 8.64 | | | 75.7 | | | 5.25 | J | P |
| DIBENZO(A,H)ANTHRACENE | | 172 | | | 4.01 | J | P | 22.9 | | | 2.64 | J | P |
| FLUORANTHENE | | 343 | | | 8.82 | | | 82.1 | | | 6.25 | J | P |
| FLUORENE | | 8.68 | U | | 2.02 | U | | 2.49 | J | P | 2.03 | U | |
| INDENO(1,2,3-CD)PYRENE | | 883 | | | 11.4 | | | 92.8 | | | 8.48 | | |
| NAPHTHALENE | | 19.1 | J | P | 2.02 | U | | 1.76 | U | | 2.03 | U | |
| PHENANTHRENE | | 52.9 | | | 3.6 | J | P | 24.6 | | | 3.18 | J | P |
| PYRENE | | 386 | | | 9.32 | | | 82.5 | | | 5.63 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-114-0002 | | | 05-SS-114-0406 | | | 05-SS-115-0002 | | | 05-SS-115-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1112051 | LAB_ID | 1112051-05 | | | 1112051-06 | | | 1112051-07 | | | 1112051-09 | | |
| FRACTION: PAH | SAMP_DATE | 12/6/2011 | | | 12/6/2011 | | | 12/6/2011 | | | 12/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 92.9 | | | 94.6 | | | 94.6 | | | 95.4 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 8.7 | U | | 1.74 | U | | 2.36 | J | P | 1.74 | U | |
| 2-METHYLNAPHTHALENE | | 15.3 | J | P | 1.74 | U | | 3.06 | J | P | 1.74 | U | |
| ACENAPHTHENE | | 10.5 | J | P | 1.74 | U | | 10.8 | | | 1.74 | U | |
| ACENAPHTHYLENE | | 741 | | | 9.51 | | | 31.7 | | | 1.74 | U | |
| ANTHRACENE | | 147 | | | 2.4 | J | P | 18.9 | | | 1.74 | U | |
| BENZO(A)ANTHRACENE | | 1790 | | | 11.2 | | | 114 | | | 1.74 | U | |
| BENZO(A)PYRENE | | 3120 | | | 32.2 | | | 122 | | | 1.74 | U | |
| BENZO(B)FLUORANTHENE | | 4780 | | | 46.9 | | | 185 | | | 1.74 | U | |
| BENZO(G,H,I)PERYLENE | | 2960 | | | 50 | | | 138 | | | 1.74 | U | |
| BENZO(K)FLUORANTHENE | | 1590 | | | 17.1 | | | 78.9 | | | 1.74 | U | |
| CHRYSENE | | 1870 | | | 15 | | | 130 | | | 1.74 | U | |
| DIBENZO(A,H)ANTHRACENE | | 689 | | | 10.3 | | | 26.1 | | | 1.74 | U | |
| FLUORANTHENE | | 910 | | | 13.3 | | | 218 | | | 1.74 | U | |
| FLUORENE | | 8.7 | U | | 1.74 | U | | 8.59 | | | 1.74 | U | |
| INDENO(1,2,3-CD)PYRENE | | 3070 | | | 44.5 | | | 118 | | | 1.74 | U | |
| NAPHTHALENE | | 18.5 | J | P | 1.74 | U | | 6.21 | J | P | 1.74 | U | |
| PHENANTHRENE | | 78.8 | | | 5.86 | J | P | 101 | | | 1.74 | U | |
| PYRENE | | 1600 | | | 14.4 | | | 172 | | | 1.74 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-116-0002 | | | 05-SS-117-0002 | | | 05-SS-117-0406 | | | 05-SS-118-0406 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1112051 | LAB_ID | 1112051-10 | | | 1112051-13 | | | 1112051-14 | | | 1112051-15 | | |
| FRACTION: PAH | SAMP_DATE | 12/6/2011 | | | 12/6/2011 | | | 12/6/2011 | | | 12/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 93.0 | | | 93.0 | | | 96.6 | | | 94.7 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 2.49 | J | P | 8.57 | U | | 1.71 | U | | 1.7 | U | |
| 2-METHYLNAPHTHALENE | | 3.56 | J | P | 16.3 | J | P | 1.71 | U | | 1.7 | U | |
| ACENAPHTHENE | | 2.93 | J | P | 16.5 | J | P | 2.54 | J | P | 1.7 | U | |
| ACENAPHTHYLENE | | 22.3 | | | 842 | | | 25.5 | | | 1.7 | U | |
| ANTHRACENE | | 5.5 | J | P | 184 | | | 21.4 | | | 1.7 | U | |
| BENZO(A)ANTHRACENE | | 37.3 | | | 2410 | | | 132 | | | 5.79 | J | P |
| BENZO(A)PYRENE | | 63.6 | | | 3520 | | | 124 | | | 6.99 | | |
| BENZO(B)FLUORANTHENE | | 93.6 | | | 4950 | | | 186 | | | 9.49 | | |
| BENZO(G,H,I)PERYLENE | | 60.9 | | | 3480 | | | 110 | | | 5.93 | J | P |
| BENZO(K)FLUORANTHENE | | 34.5 | | | 1740 | | | 68.2 | | | 4.25 | J | P |
| CHRYSENE | | 49.1 | | | 2640 | | | 148 | | | 6.26 | J | P |
| DIBENZO(A,H)ANTHRACENE | | 11.6 | | | 874 | | | 28.9 | | | 1.7 | U | |
| FLUORANTHENE | | 52.3 | | | 2620 | | | 223 | | | 8.32 | | |
| FLUORENE | | 3.07 | J | P | 30.1 | J | P | 4.55 | J | P | 1.7 | U | |
| INDENO(1,2,3-CD)PYRENE | | 61.6 | | | 3420 | | | 109 | | | 6.22 | J | P |
| NAPHTHALENE | | 4.03 | J | P | 74.8 | | | 1.71 | U | | 1.7 | U | |
| PHENANTHRENE | | 18.7 | | | 250 | | | 76.1 | | | 4.17 | J | P |
| PYRENE | | 51.7 | | | 2830 | | | 189 | | | 6.66 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SS-119-0406 | | | 05-SS-120-0406 | | | 05-SS-121-0406 | | | FD12061101 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1112051 | LAB_ID | 1112051-17 | | | 1112051-18 | | | 1112051-19 | | | 1112051-08 | | |
| FRACTION: PAH | SAMP_DATE | 12/6/2011 | | | 12/6/2011 | | | 12/6/2011 | | | 12/6/2011 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 85.9 | | | 81.7 | | | 92.2 | | | 94.3 | | |
| | DUP_OF | | | | | | | | | | 05-SS-115-0002 | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 1.87 | U | | 1.99 | U | | 1.73 | U | | 2.1 | J | P |
| 2-METHYLNAPHTHALENE | | 1.87 | U | | 4.54 | J | P | 1.73 | U | | 1.77 | J | P |
| ACENAPHTHENE | | 1.87 | U | | 1.99 | U | | 1.73 | U | | 12.1 | | |
| ACENAPHTHYLENE | | 1.87 | U | | 1.99 | U | | 1.73 | U | | 25.9 | | |
| ANTHRACENE | | 1.87 | U | | 4.52 | J | P | 1.73 | U | | 22.4 | | |
| BENZO(A)ANTHRACENE | | 3.62 | J | P | 38.4 | | | 1.96 | J | P | 144 | | |
| BENZO(A)PYRENE | | 3.21 | J | P | 29.6 | | | 1.95 | J | P | 152 | | |
| BENZO(B)FLUORANTHENE | | 4.53 | J | P | 50.5 | | | 3.39 | J | P | 251 | | |
| BENZO(G,H,I)PERYLENE | | 2.37 | J | P | 22.3 | | | 1.89 | J | P | 164 | | |
| BENZO(K)FLUORANTHENE | | 2.33 | J | P | 22.5 | | | 1.73 | U | | 81.8 | | |
| CHRYSENE | | 3.7 | J | P | 51.3 | | | 2.49 | J | P | 166 | | |
| DIBENZO(A,H)ANTHRACENE | | 1.87 | U | | 5.35 | J | P | 1.73 | U | | 33.8 | | |
| FLUORANTHENE | | 6.06 | J | P | 55.4 | | | 3.38 | J | P | 265 | | |
| FLUORENE | | 1.87 | U | | 1.99 | U | | 1.73 | U | | 9.73 | | |
| INDENO(1,2,3-CD)PYRENE | | 3 | J | P | 20.5 | | | 1.73 | U | | 153 | | |
| NAPHTHALENE | | 1.87 | U | | 1.99 | U | | 1.73 | U | | 4.71 | J | P |
| PHENANTHRENE | | 3.32 | J | P | 19.2 | | | 2.2 | J | P | 124 | | |
| PYRENE | | 4.99 | J | P | 47.7 | | | 2.92 | J | P | 214 | | |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | FD12061102 | | |
| **SDG: 1112051** | LAB_ID | 1112051-16 | | |
| **FRACTION: PAH** | SAMP_DATE | 12/6/2011 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | |
| | UNITS | UG/KG | | |
| | PCT_SOLIDS | 95.1 | | |
| | DUP_OF | 05-SS-118-0406 | | |
| PARAMETER | | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 1.68 | U | |
| 2-METHYLNAPHTHALENE | | 1.68 | U | |
| ACENAPHTHENE | | 1.68 | U | |
| ACENAPHTHYLENE | | 1.68 | U | |
| ANTHRACENE | | 1.68 | U | |
| BENZO(A)ANTHRACENE | | 7.47 | | |
| BENZO(A)PYRENE | | 6.88 | | |
| BENZO(B)FLUORANTHENE | | 10.4 | | |
| BENZO(G,H,I)PERYLENE | | 5.95 | J | P |
| BENZO(K)FLUORANTHENE | | 4.49 | J | P |
| CHRYSENE | | 7.71 | | |
| DIBENZO(A,H)ANTHRACENE | | 1.68 | U | |
| FLUORANTHENE | | 11.7 | | |
| FLUORENE | | 1.68 | U | |
| INDENO(1,2,3-CD)PYRENE | | 5.87 | J | P |
| NAPHTHALENE | | 1.68 | U | |
| PHENANTHRENE | | 5.44 | J | P |
| PYRENE | | 9.96 | | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**05-SS-112-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Solid | Laboratory ID: | 1112051-01 | File ID: | 1205101D.D |
| Sampled: | 12/06/11 11:04 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 23:42 |
| Solids: | 92.51 | Preparation: | EXT_3546 | Dilution: | 5 |
| Batch: | 1L08004 | Sequence: | 1L36102 | Calibration: | 1238006 |
| Instrument: | MS-BNA4 | | | | |

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 8.68 | 17.3 | 34.7 | U |
| 208-96-8 | Acenaphthylene | 420 | 8.68 | 17.3 | 34.7 | D |
| 120-12-7 | Anthracene | 95.3 | 8.68 | 17.3 | 34.7 | D |
| 56-55-3 | Benzo(a)anthracene | 359 | 8.68 | 17.3 | 34.7 | D |
| 50-32-8 | Benzo(a)pyrene | 609 | 8.68 | 17.3 | 34.7 | D |
| 205-99-2 | Benzo(b)fluoranthene | 916 | 8.68 | 17.3 | 34.7 | D |
| 191-24-2 | Benzo(g,h,i)perylene | 1410 | 8.68 | 17.3 | 34.7 | D |
| 207-08-9 | Benzo(k)fluoranthene | 280 | 8.68 | 17.3 | 34.7 | D |
| 218-01-9 | Chrysene | 381 | 8.68 | 17.3 | 34.7 | D |
| 53-70-3 | Dibenz(a,h)anthracene | 172 | 8.68 | 17.3 | 34.7 | D |
| 206-44-0 | Fluoranthene | 343 | 8.68 | 17.3 | 34.7 | D |
| 86-73-7 | Fluorene | | 8.68 | 17.3 | 34.7 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 883 | 8.68 | 17.3 | 34.7 | D |
| 90-12-0 | 1-Methylnaphthalene | | 8.68 | 17.3 | 34.7 | U |
| 91-57-6 | 2-Methylnaphthalene | | 8.68 | 17.3 | 34.7 | U |
| 91-20-3 | Naphthalene | 19.1 | 8.68 | 17.3 | 34.7 | , D 1 |
| 85-01-8 | Phenanthrene | 52.9 | 8.68 | 17.3 | 34.7 | D |
| 129-00-0 | Pyrene | 386 | 8.68 | 17.3 | 34.7 | D |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3465 | 2563 | 74.0 | 14 - 129 | |
| Terphenyl-d14 | 3465 | 3082 | 89.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-112-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-02 | File ID: | 1205102.D |
| Sampled: | 12/06/11 11:28 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 16:51 |
| Solids: | 81.65 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 2.02 | 4.02 | 8.06 | U |
| 208-96-8 | Acenaphthylene | 3.62 | 2.02 | 4.02 | 8.06 | I |
| 120-12-7 | Anthracene | | 2.02 | 4.02 | 8.06 | U |
| 56-55-3 | Benzo(a)anthracene | 6.38 | 2.02 | 4.02 | 8.06 | I |
| 50-32-8 | Benzo(a)pyrene | 11.4 | 2.02 | 4.02 | 8.06 | |
| 205-99-2 | Benzo(b)fluoranthene | 15.3 | 2.02 | 4.02 | 8.06 | |
| 191-24-2 | Benzo(g,h,i)perylene | 13.1 | 2.02 | 4.02 | 8.06 | |
| 207-08-9 | Benzo(k)fluoranthene | 7.19 | 2.02 | 4.02 | 8.06 | I |
| 218-01-9 | Chrysene | 8.64 | 2.02 | 4.02 | 8.06 | |
| 53-70-3 | Dibenz(a,h)anthracene | 4.01 | 2.02 | 4.02 | 8.06 | I |
| 206-44-0 | Fluoranthene | 8.82 | 2.02 | 4.02 | 8.06 | |
| 86-73-7 | Fluorene | | 2.02 | 4.02 | 8.06 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 11.4 | 2.02 | 4.02 | 8.06 | |
| 90-12-0 | 1-Methylnaphthalene | | 2.02 | 4.02 | 8.06 | U |
| 91-57-6 | 2-Methylnaphthalene | | 2.02 | 4.02 | 8.06 | U |
| 91-20-3 | Naphthalene | | 2.02 | 4.02 | 8.06 | U |
| 85-01-8 | Phenanthrene | 3.60 | 2.02 | 4.02 | 8.06 | I |
| 129-00-0 | Pyrene | 9.32 | 2.02 | 4.02 | 8.06 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4029 | 3010 | 74.7 | 14 - 129 | |
| Terphenyl-d14 | 4029 | 3829 | 95.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-113-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-03 | File ID: | 1205103.D |
| Sampled: | 12/06/11 11:37 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 17:18 |
| Solids: | 92.66 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 2.37 | 1.76 | 3.50 | 7.01 | I |
| 208-96-8 | Acenaphthylene | 29.3 | 1.76 | 3.50 | 7.01 | |
| 120-12-7 | Anthracene | 9.67 | 1.76 | 3.50 | 7.01 | |
| 56-55-3 | Benzo(a)anthracene | 60.8 | 1.76 | 3.50 | 7.01 | |
| 50-32-8 | Benzo(a)pyrene | 90.6 | 1.76 | 3.50 | 7.01 | |
| 205-99-2 | Benzo(b)fluoranthene | 134 | 1.76 | 3.50 | 7.01 | |
| 191-24-2 | Benzo(g,h,i)perylene | 96.8 | 1.76 | 3.50 | 7.01 | |
| 207-08-9 | Benzo(k)fluoranthene | 52.1 | 1.76 | 3.50 | 7.01 | |
| 218-01-9 | Chrysene | 75.7 | 1.76 | 3.50 | 7.01 | |
| 53-70-3 | Dibenz(a,h)anthracene | 22.9 | 1.76 | 3.50 | 7.01 | |
| 206-44-0 | Fluoranthene | 82.1 | 1.76 | 3.50 | 7.01 | |
| 86-73-7 | Fluorene | 2.49 | 1.76 | 3.50 | 7.01 | I |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 92.8 | 1.76 | 3.50 | 7.01 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.76 | 3.50 | 7.01 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.76 | 3.50 | 7.01 | U |
| 91-20-3 | Naphthalene | | 1.76 | 3.50 | 7.01 | U |
| 85-01-8 | Phenanthrene | 24.6 | 1.76 | 3.50 | 7.01 | |
| 129-00-0 | Pyrene | 82.5 | 1.76 | 3.50 | 7.01 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3504 | 2665 | 76.1 | 14 - 129 | |
| Terphenyl-d14 | 3504 | 3360 | 95.9 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-113-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Solid | Laboratory ID: | 1112051-04 | File ID: | 1205104.D |
| Sampled: | 12/06/11 11:46 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 17:46 |
| Solids: | 78.97 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 2.03 | 4.05 | 8.12 | U |
| 208-96-8 | Acenaphthylene | 2.51 | 2.03 | 4.05 | 8.12 | I |
| 120-12-7 | Anthracene | | 2.03 | 4.05 | 8.12 | U |
| 56-55-3 | Benzo(a)anthracene | 4.78 | 2.03 | 4.05 | 8.12 | I |
| 50-32-8 | Benzo(a)pyrene | 6.97 | 2.03 | 4.05 | 8.12 | I |
| 205-99-2 | Benzo(b)fluoranthene | 11.7 | 2.03 | 4.05 | 8.12 | |
| 191-24-2 | Benzo(g,h,i)perylene | 7.70 | 2.03 | 4.05 | 8.12 | I |
| 207-08-9 | Benzo(k)fluoranthene | 3.47 | 2.03 | 4.05 | 8.12 | I |
| 218-01-9 | Chrysene | 5.25 | 2.03 | 4.05 | 8.12 | I |
| 53-70-3 | Dibenz(a,h)anthracene | 2.64 | 2.03 | 4.05 | 8.12 | I |
| 206-44-0 | Fluoranthene | 6.25 | 2.03 | 4.05 | 8.12 | I |
| 86-73-7 | Fluorene | | 2.03 | 4.05 | 8.12 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 8.48 | 2.03 | 4.05 | 8.12 | |
| 90-12-0 | 1-Methylnaphthalene | | 2.03 | 4.05 | 8.12 | U |
| 91-57-6 | 2-Methylnaphthalene | | 2.03 | 4.05 | 8.12 | U |
| 91-20-3 | Naphthalene | | 2.03 | 4.05 | 8.12 | U |
| 85-01-8 | Phenanthrene | 3.18 | 2.03 | 4.05 | 8.12 | I |
| 129-00-0 | Pyrene | 5.63 | 2.03 | 4.05 | 8.12 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 4059 | 870.4 | 21.4 | 14 - 129 | |
| Terphenyl-d14 | 4059 | 2002 | 49.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-114-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Solid | Laboratory ID: | 1112051-05 | File ID: | 1205105D.D |
| Sampled: | 12/06/11 11:56 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/22/11 00:10 |
| Solids: | 92.90 | Preparation: | EXT_3546 | Dilution: | 5 |
| Batch: | 1L08004 | Sequence: | 1L36102 | Calibration: | 1238006 |
| Instrument: | MS-BNA4 | | | | |

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 10.5 | 8.70 | 17.3 | 34.7 | , D I |
| 208-96-8 | Acenaphthylene | 741 | 8.70 | 17.3 | 34.7 | D |
| 120-12-7 | Anthracene | 147 | 8.70 | 17.3 | 34.7 | D |
| 56-55-3 | Benzo(a)anthracene | 1790 | 8.70 | 17.3 | 34.7 | D |
| 50-32-8 | Benzo(a)pyrene | 3120 | 8.70 | 17.3 | 34.7 | D |
| 205-99-2 | Benzo(b)fluoranthene | 4780 | 8.70 | 17.3 | 34.7 | D |
| 191-24-2 | Benzo(g,h,i)perylene | 2960 | 8.70 | 17.3 | 34.7 | D |
| 207-08-9 | Benzo(k)fluoranthene | 1590 | 8.70 | 17.3 | 34.7 | D |
| 218-01-9 | Chrysene | 1870 | 8.70 | 17.3 | 34.7 | D |
| 53-70-3 | Dibenz(a,h)anthracene | 689 | 8.70 | 17.3 | 34.7 | D |
| 206-44-0 | Fluoranthene | 910 | 8.70 | 17.3 | 34.7 | D |
| 86-73-7 | Fluorene | | 8.70 | 17.3 | 34.7 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 3070 | 8.70 | 17.3 | 34.7 | D |
| 90-12-0 | 1-Methylnaphthalene | | 8.70 | 17.3 | 34.7 | U |
| 91-57-6 | 2-Methylnaphthalene | 15.3 | 8.70 | 17.3 | 34.7 | , D I |
| 91-20-3 | Naphthalene | 18.5 | 8.70 | 17.3 | 34.7 | , D I |
| 85-01-8 | Phenanthrene | 78.8 | 8.70 | 17.3 | 34.7 | D |
| 129-00-0 | Pyrene | 1600 | 8.70 | 17.3 | 34.7 | D |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3473 | 2401 | 69.1 | 14 - 129 | |
| Terphenyl-d14 | 3473 | 3047 | 87.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-114-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-06 | File ID: | 1205106.D |
| Sampled: | 12/06/11 12:03 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 18:13 |
| Solids: | 94.62 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.74 | 3.47 | 6.96 | U |
| 208-96-8 | Acenaphthylene | 9.51 | 1.74 | 3.47 | 6.96 | |
| 120-12-7 | Anthracene | 2.40 | 1.74 | 3.47 | 6.96 | I |
| 56-55-3 | Benzo(a)anthracene | 11.2 | 1.74 | 3.47 | 6.96 | |
| 50-32-8 | Benzo(a)pyrene | 32.2 | 1.74 | 3.47 | 6.96 | |
| 205-99-2 | Benzo(b)fluoranthene | 46.9 | 1.74 | 3.47 | 6.96 | |
| 191-24-2 | Benzo(g,h,i)perylene | 50.0 | 1.74 | 3.47 | 6.96 | |
| 207-08-9 | Benzo(k)fluoranthene | 17.1 | 1.74 | 3.47 | 6.96 | |
| 218-01-9 | Chrysene | 15.0 | 1.74 | 3.47 | 6.96 | |
| 53-70-3 | Dibenz(a,h)anthracene | 10.3 | 1.74 | 3.47 | 6.96 | |
| 206-44-0 | Fluoranthene | 13.3 | 1.74 | 3.47 | 6.96 | |
| 86-73-7 | Fluorene | | 1.74 | 3.47 | 6.96 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 44.5 | 1.74 | 3.47 | 6.96 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.74 | 3.47 | 6.96 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.74 | 3.47 | 6.96 | U |
| 91-20-3 | Naphthalene | | 1.74 | 3.47 | 6.96 | U |
| 85-01-8 | Phenanthrene | 5.86 | 1.74 | 3.47 | 6.96 | I |
| 129-00-0 | Pyrene | 14.4 | 1.74 | 3.47 | 6.96 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3476 | 2432 | 70.0 | 14 - 129 | |
| Terphenyl-d14 | 3476 | 3178 | 91.4 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-115-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-07 | File ID: | 1205107.D |
| Sampled: | 12/06/11 12:16 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 22:47 |
| Solids: | 94.65 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 10.8 | 1.69 | 3.36 | 6.73 | |
| 208-96-8 | Acenaphthylene | 31.7 | 1.69 | 3.36 | 6.73 | |
| 120-12-7 | Anthracene | 18.9 | 1.69 | 3.36 | 6.73 | |
| 56-55-3 | Benzo(a)anthracene | 114 | 1.69 | 3.36 | 6.73 | |
| 50-32-8 | Benzo(a)pyrene | 122 | 1.69 | 3.36 | 6.73 | |
| 205-99-2 | Benzo(b)fluoranthene | 185 | 1.69 | 3.36 | 6.73 | |
| 191-24-2 | Benzo(g,h,i)perylene | 138 | 1.69 | 3.36 | 6.73 | |
| 207-08-9 | Benzo(k)fluoranthene | 78.9 | 1.69 | 3.36 | 6.73 | |
| 218-01-9 | Chrysene | 130 | 1.69 | 3.36 | 6.73 | |
| 53-70-3 | Dibenz(a,h)anthracene | 26.1 | 1.69 | 3.36 | 6.73 | |
| 206-44-0 | Fluoranthene | 218 | 1.69 | 3.36 | 6.73 | |
| 86-73-7 | Fluorene | 8.59 | 1.69 | 3.36 | 6.73 | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 118 | 1.69 | 3.36 | 6.73 | |
| 90-12-0 | 1-Methylnaphthalene | 2.36 | 1.69 | 3.36 | 6.73 | I |
| 91-57-6 | 2-Methylnaphthalene | 3.06 | 1.69 | 3.36 | 6.73 | I |
| 91-20-3 | Naphthalene | 6.21 | 1.69 | 3.36 | 6.73 | I |
| 85-01-8 | Phenanthrene | 101 | 1.69 | 3.36 | 6.73 | |
| 129-00-0 | Pyrene | 172 | 1.69 | 3.36 | 6.73 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3365 | 1818 | 54.0 | 14 - 129 | |
| Terphenyl-d14 | 3365 | 2365 | 70.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-115-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Solid | Laboratory ID: | 1112051-09 | File ID: | 1205109.D |
| Sampled: | 12/06/11 12:28 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 18:41 |
| Solids: | 95.36 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.74 | 3.47 | 6.95 | U |
| 208-96-8 | Acenaphthylene | | 1.74 | 3.47 | 6.95 | U |
| 120-12-7 | Anthracene | | 1.74 | 3.47 | 6.95 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.74 | 3.47 | 6.95 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.74 | 3.47 | 6.95 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.74 | 3.47 | 6.95 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.74 | 3.47 | 6.95 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.74 | 3.47 | 6.95 | U |
| 218-01-9 | Chrysene | | 1.74 | 3.47 | 6.95 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.74 | 3.47 | 6.95 | U |
| 206-44-0 | Fluoranthene | | 1.74 | 3.47 | 6.95 | U |
| 86-73-7 | Fluorene | | 1.74 | 3.47 | 6.95 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.74 | 3.47 | 6.95 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.74 | 3.47 | 6.95 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.74 | 3.47 | 6.95 | U |
| 91-20-3 | Naphthalene | | 1.74 | 3.47 | 6.95 | U |
| 85-01-8 | Phenanthrene | | 1.74 | 3.47 | 6.95 | U |
| 129-00-0 | Pyrene | | 1.74 | 3.47 | 6.95 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3472 | 2389 | 68.8 | 14 - 129 | |
| Terphenyl-d14 | 3472 | 3063 | 88.2 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-116-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-10 | File ID: | 1205110.D |
| Sampled: | 12/06/11 12:34 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 19:08 |
| Solids: | 92.99 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 2.93 | 1.75 | 3.49 | 6.99 | I |
| 208-96-8 | Acenaphthylene | 22.3 | 1.75 | 3.49 | 6.99 | |
| 120-12-7 | Anthracene | 5.50 | 1.75 | 3.49 | 6.99 | I |
| 56-55-3 | Benzo(a)anthracene | 37.3 | 1.75 | 3.49 | 6.99 | |
| 50-32-8 | Benzo(a)pyrene | 63.6 | 1.75 | 3.49 | 6.99 | |
| 205-99-2 | Benzo(b)fluoranthene | 93.6 | 1.75 | 3.49 | 6.99 | |
| 191-24-2 | Benzo(g,h,i)perylene | 60.9 | 1.75 | 3.49 | 6.99 | |
| 207-08-9 | Benzo(k)fluoranthene | 34.5 | 1.75 | 3.49 | 6.99 | |
| 218-01-9 | Chrysene | 49.1 | 1.75 | 3.49 | 6.99 | |
| 53-70-3 | Dibenz(a,h)anthracene | 11.6 | 1.75 | 3.49 | 6.99 | |
| 206-44-0 | Fluoranthene | 52.3 | 1.75 | 3.49 | 6.99 | |
| 86-73-7 | Fluorene | 3.07 | 1.75 | 3.49 | 6.99 | I |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 61.6 | 1.75 | 3.49 | 6.99 | |
| 90-12-0 | 1-Methylnaphthalene | 2.49 | 1.75 | 3.49 | 6.99 | I |
| 91-57-6 | 2-Methylnaphthalene | 3.56 | 1.75 | 3.49 | 6.99 | I |
| 91-20-3 | Naphthalene | 4.03 | 1.75 | 3.49 | 6.99 | I |
| 85-01-8 | Phenanthrene | 18.7 | 1.75 | 3.49 | 6.99 | |
| 129-00-0 | Pyrene | 51.7 | 1.75 | 3.49 | 6.99 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3492 | 2906 | 83.2 | 14 - 129 | |
| Terphenyl-d14 | 3492 | 3478 | 99.6 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-117-0002**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Solid | Laboratory ID: | 1112051-13 | File ID: | 1205113D.D |
| Sampled: | 12/06/11 12:56 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/22/11 00:38 |
| Solids: | 93.04 | Preparation: | EXT_3546 | Dilution: | 5 |
| Batch: | 1L08004 | Sequence: | 1L36102 | Calibration: | 1238006 |
| Instrument: | MS-BNA4 | | | | |

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 16.5 | 8.57 | 17.1 | 34.2 | , D 1 |
| 208-96-8 | Acenaphthylene | 842 | 8.57 | 17.1 | 34.2 | D |
| 120-12-7 | Anthracene | 184 | 8.57 | 17.1 | 34.2 | D |
| 56-55-3 | Benzo(a)anthracene | 2410 | 8.57 | 17.1 | 34.2 | D |
| 50-32-8 | Benzo(a)pyrene | 3520 | 8.57 | 17.1 | 34.2 | D |
| 205-99-2 | Benzo(b)fluoranthene | 4950 | 8.57 | 17.1 | 34.2 | D |
| 191-24-2 | Benzo(g,h,i)perylene | 3480 | 8.57 | 17.1 | 34.2 | D |
| 207-08-9 | Benzo(k)fluoranthene | 1740 | 8.57 | 17.1 | 34.2 | D |
| 218-01-9 | Chrysene | 2640 | 8.57 | 17.1 | 34.2 | D |
| 53-70-3 | Dibenz(a,h)anthracene | 874 | 8.57 | 17.1 | 34.2 | D |
| 206-44-0 | Fluoranthene | 2620 | 8.57 | 17.1 | 34.2 | D |
| 86-73-7 | Fluorene | 30.1 | 8.57 | 17.1 | 34.2 | , D 1 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 3420 | 8.57 | 17.1 | 34.2 | D |
| 90-12-0 | 1-Methylnaphthalene | | 8.57 | 17.1 | 34.2 | U |
| 91-57-6 | 2-Methylnaphthalene | 16.3 | 8.57 | 17.1 | 34.2 | , D 1 |
| 91-20-3 | Naphthalene | 74.8 | 8.57 | 17.1 | 34.2 | D |
| 85-01-8 | Phenanthrene | 250 | 8.57 | 17.1 | 34.2 | D |
| 129-00-0 | Pyrene | 2830 | 8.57 | 17.1 | 34.2 | D |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3423 | 2583 | 75.4 | 14 - 129 | |
| Terphenyl-d14 | 3423 | 3451 | 101 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-117-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Solid | Laboratory ID: | 1112051-14 | File ID: | 1205114.D |
| Sampled: | 12/06/11 13:10 | Prepared: | 12/14/11 09:45 | Analyzed: | 12/28/11 21:11 |
| Solids: | 96.64 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L12009 Sequence: 1L36307 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 2.54 | 1.71 | 3.40 | 6.81 | I |
| 208-96-8 | Acenaphthylene | 25.5 | 1.71 | 3.40 | 6.81 | |
| 120-12-7 | Anthracene | 21.4 | 1.71 | 3.40 | 6.81 | |
| 56-55-3 | Benzo(a)anthracene | 132 | 1.71 | 3.40 | 6.81 | |
| 50-32-8 | Benzo(a)pyrene | 124 | 1.71 | 3.40 | 6.81 | |
| 205-99-2 | Benzo(b)fluoranthene | 186 | 1.71 | 3.40 | 6.81 | |
| 191-24-2 | Benzo(g,h,i)perylene | 110 | 1.71 | 3.40 | 6.81 | |
| 207-08-9 | Benzo(k)fluoranthene | 68.2 | 1.71 | 3.40 | 6.81 | |
| 218-01-9 | Chrysene | 148 | 1.71 | 3.40 | 6.81 | |
| 53-70-3 | Dibenz(a,h)anthracene | 28.9 | 1.71 | 3.40 | 6.81 | |
| 206-44-0 | Fluoranthene | 223 | 1.71 | 3.40 | 6.81 | |
| 86-73-7 | Fluorene | 4.55 | 1.71 | 3.40 | 6.81 | I |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 109 | 1.71 | 3.40 | 6.81 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.71 | 3.40 | 6.81 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.71 | 3.40 | 6.81 | U |
| 91-20-3 | Naphthalene | | 1.71 | 3.40 | 6.81 | U |
| 85-01-8 | Phenanthrene | 76.1 | 1.71 | 3.40 | 6.81 | |
| 129-00-0 | Pyrene | 189 | 1.71 | 3.40 | 6.81 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3404 | 2179 | 64.0 | 14 - 129 | |
| Terphenyl-d14 | 3404 | 2951 | 86.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-118-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Solid | Laboratory ID: | 1112051-15 | File ID: | 1205115.D |
| Sampled: | 12/06/11 13:45 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 19:35 |
| Solids: | 94.66 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.70 | 3.38 | 6.78 | U |
| 208-96-8 | Acenaphthylene | | 1.70 | 3.38 | 6.78 | U |
| 120-12-7 | Anthracene | | 1.70 | 3.38 | 6.78 | U |
| 56-55-3 | Benzo(a)anthracene | 5.79 | 1.70 | 3.38 | 6.78 | I |
| 50-32-8 | Benzo(a)pyrene | 6.99 | 1.70 | 3.38 | 6.78 | |
| 205-99-2 | Benzo(b)fluoranthene | 9.49 | 1.70 | 3.38 | 6.78 | |
| 191-24-2 | Benzo(g,h,i)perylene | 5.93 | 1.70 | 3.38 | 6.78 | I |
| 207-08-9 | Benzo(k)fluoranthene | 4.25 | 1.70 | 3.38 | 6.78 | I |
| 218-01-9 | Chrysene | 6.26 | 1.70 | 3.38 | 6.78 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.70 | 3.38 | 6.78 | U |
| 206-44-0 | Fluoranthene | 8.32 | 1.70 | 3.38 | 6.78 | |
| 86-73-7 | Fluorene | | 1.70 | 3.38 | 6.78 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 6.22 | 1.70 | 3.38 | 6.78 | I |
| 90-12-0 | 1-Methylnaphthalene | | 1.70 | 3.38 | 6.78 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.70 | 3.38 | 6.78 | U |
| 91-20-3 | Naphthalene | | 1.70 | 3.38 | 6.78 | U |
| 85-01-8 | Phenanthrene | 4.17 | 1.70 | 3.38 | 6.78 | I |
| 129-00-0 | Pyrene | 6.66 | 1.70 | 3.38 | 6.78 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3386 | 2871 | 84.8 | 14 - 129 | |
| Terphenyl-d14 | 3386 | 3405 | 101 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-119-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Solid | Laboratory ID: | 1112051-17 | File ID: | 1205117.D |
| Sampled: | 12/06/11 13:56 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 21:24 |
| Solids: | 85.93 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.87 | 3.73 | 7.46 | U |
| 208-96-8 | Acenaphthylene | | 1.87 | 3.73 | 7.46 | U |
| 120-12-7 | Anthracene | | 1.87 | 3.73 | 7.46 | U |
| 56-55-3 | Benzo(a)anthracene | 3.62 | 1.87 | 3.73 | 7.46 | I |
| 50-32-8 | Benzo(a)pyrene | 3.21 | 1.87 | 3.73 | 7.46 | I |
| 205-99-2 | Benzo(b)fluoranthene | 4.53 | 1.87 | 3.73 | 7.46 | I |
| 191-24-2 | Benzo(g,h,i)perylene | 2.37 | 1.87 | 3.73 | 7.46 | I |
| 207-08-9 | Benzo(k)fluoranthene | 2.33 | 1.87 | 3.73 | 7.46 | I |
| 218-01-9 | Chrysene | 3.70 | 1.87 | 3.73 | 7.46 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.87 | 3.73 | 7.46 | U |
| 206-44-0 | Fluoranthene | 6.06 | 1.87 | 3.73 | 7.46 | I |
| 86-73-7 | Fluorene | | 1.87 | 3.73 | 7.46 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 3.00 | 1.87 | 3.73 | 7.46 | I |
| 90-12-0 | 1-Methylnaphthalene | | 1.87 | 3.73 | 7.46 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.87 | 3.73 | 7.46 | U |
| 91-20-3 | Naphthalene | | 1.87 | 3.73 | 7.46 | U |
| 85-01-8 | Phenanthrene | 3.32 | 1.87 | 3.73 | 7.46 | I |
| 129-00-0 | Pyrene | 4.99 | 1.87 | 3.73 | 7.46 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3730 | 2959 | 79.3 | 14 - 129 | |
| Terphenyl-d14 | 3730 | 3545 | 95.1 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-120-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-18 | File ID: | 1205118.D |
| Sampled: | 12/06/11 14:03 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 21:52 |
| Solids: | 81.66 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.99 | 3.97 | 7.96 | U |
| 208-96-8 | Acenaphthylene | | 1.99 | 3.97 | 7.96 | U |
| 120-12-7 | Anthracene | 4.52 | 1.99 | 3.97 | 7.96 | I |
| 56-55-3 | Benzo(a)anthracene | 38.4 | 1.99 | 3.97 | 7.96 | |
| 50-32-8 | Benzo(a)pyrene | 29.6 | 1.99 | 3.97 | 7.96 | |
| 205-99-2 | Benzo(b)fluoranthene | 50.5 | 1.99 | 3.97 | 7.96 | |
| 191-24-2 | Benzo(g,h,i)perylene | 22.3 | 1.99 | 3.97 | 7.96 | |
| 207-08-9 | Benzo(k)fluoranthene | 22.5 | 1.99 | 3.97 | 7.96 | |
| 218-01-9 | Chrysene | 51.3 | 1.99 | 3.97 | 7.96 | |
| 53-70-3 | Dibenz(a,h)anthracene | 5.35 | 1.99 | 3.97 | 7.96 | I |
| 206-44-0 | Fluoranthene | 55.4 | 1.99 | 3.97 | 7.96 | |
| 86-73-7 | Fluorene | | 1.99 | 3.97 | 7.96 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 20.5 | 1.99 | 3.97 | 7.96 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.99 | 3.97 | 7.96 | U |
| 91-57-6 | 2-Methylnaphthalene | 4.54 | 1.99 | 3.97 | 7.96 | I |
| 91-20-3 | Naphthalene | | 1.99 | 3.97 | 7.96 | U |
| 85-01-8 | Phenanthrene | 19.2 | 1.99 | 3.97 | 7.96 | |
| 129-00-0 | Pyrene | 47.7 | 1.99 | 3.97 | 7.96 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3976 | 3195 | 80.4 | 14 - 129 | |
| Terphenyl-d14 | 3976 | 4140 | 104 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SS-121-0406**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-19 | File ID: | 1205119.D |
| Sampled: | 12/06/11 14:09 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 22:19 |
| Solids: | 92.24 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.73 | 3.45 | 6.91 | U |
| 208-96-8 | Acenaphthylene | | 1.73 | 3.45 | 6.91 | U |
| 120-12-7 | Anthracene | | 1.73 | 3.45 | 6.91 | U |
| 56-55-3 | Benzo(a)anthracene | 1.96 | 1.73 | 3.45 | 6.91 | I |
| 50-32-8 | Benzo(a)pyrene | 1.95 | 1.73 | 3.45 | 6.91 | I |
| 205-99-2 | Benzo(b)fluoranthene | 3.39 | 1.73 | 3.45 | 6.91 | I |
| 191-24-2 | Benzo(g,h,i)perylene | 1.89 | 1.73 | 3.45 | 6.91 | I |
| 207-08-9 | Benzo(k)fluoranthene | | 1.73 | 3.45 | 6.91 | U |
| 218-01-9 | Chrysene | 2.49 | 1.73 | 3.45 | 6.91 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.73 | 3.45 | 6.91 | U |
| 206-44-0 | Fluoranthene | 3.38 | 1.73 | 3.45 | 6.91 | I |
| 86-73-7 | Fluorene | | 1.73 | 3.45 | 6.91 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.73 | 3.45 | 6.91 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.73 | 3.45 | 6.91 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.73 | 3.45 | 6.91 | U |
| 91-20-3 | Naphthalene | | 1.73 | 3.45 | 6.91 | U |
| 85-01-8 | Phenanthrene | 2.20 | 1.73 | 3.45 | 6.91 | I |
| 129-00-0 | Pyrene | 2.92 | 1.73 | 3.45 | 6.91 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3453 | 2611 | 75.6 | 14 - 129 | |
| Terphenyl-d14 | 3453 | 3246 | 94.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**FD12061101**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-08 | File ID: | 1205108.D |
| Sampled: | 12/06/11 00:00 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 23:14 |
| Solids: | 94.29 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | 12.1 | 1.76 | 3.51 | 7.03 | |
| 208-96-8 | Acenaphthylene | 25.9 | 1.76 | 3.51 | 7.03 | |
| 120-12-7 | Anthracene | 22.4 | 1.76 | 3.51 | 7.03 | |
| 56-55-3 | Benzo(a)anthracene | 144 | 1.76 | 3.51 | 7.03 | |
| 50-32-8 | Benzo(a)pyrene | 152 | 1.76 | 3.51 | 7.03 | |
| 205-99-2 | Benzo(b)fluoranthene | 251 | 1.76 | 3.51 | 7.03 | |
| 191-24-2 | Benzo(g,h,i)perylene | 164 | 1.76 | 3.51 | 7.03 | |
| 207-08-9 | Benzo(k)fluoranthene | 81.8 | 1.76 | 3.51 | 7.03 | |
| 218-01-9 | Chrysene | 166 | 1.76 | 3.51 | 7.03 | |
| 53-70-3 | Dibenz(a,h)anthracene | 33.8 | 1.76 | 3.51 | 7.03 | |
| 206-44-0 | Fluoranthene | 265 | 1.76 | 3.51 | 7.03 | |
| 86-73-7 | Fluorene | 9.73 | 1.76 | 3.51 | 7.03 | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 153 | 1.76 | 3.51 | 7.03 | |
| 90-12-0 | 1-Methylnaphthalene | 2.10 | 1.76 | 3.51 | 7.03 | I |
| 91-57-6 | 2-Methylnaphthalene | 1.77 | 1.76 | 3.51 | 7.03 | I |
| 91-20-3 | Naphthalene | 4.71 | 1.76 | 3.51 | 7.03 | I |
| 85-01-8 | Phenanthrene | 124 | 1.76 | 3.51 | 7.03 | |
| 129-00-0 | Pyrene | 214 | 1.76 | 3.51 | 7.03 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3512 | 2315 | 65.9 | 14 - 129 | |
| Terphenyl-d14 | 3512 | 3065 | 87.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

**FD12061102**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Solid | Laboratory ID: | 1112051-16 | File ID: | 1205116.D |
| Sampled: | 12/06/11 00:00 | Prepared: | 12/08/11 09:00 | Analyzed: | 12/21/11 20:57 |
| Solids: | 95.12 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.68 | 3.34 | 6.70 | U |
| 208-96-8 | Acenaphthylene | | 1.68 | 3.34 | 6.70 | U |
| 120-12-7 | Anthracene | | 1.68 | 3.34 | 6.70 | U |
| 56-55-3 | Benzo(a)anthracene | 7.47 | 1.68 | 3.34 | 6.70 | |
| 50-32-8 | Benzo(a)pyrene | 6.88 | 1.68 | 3.34 | 6.70 | |
| 205-99-2 | Benzo(b)fluoranthene | 10.4 | 1.68 | 3.34 | 6.70 | |
| 191-24-2 | Benzo(g,h,i)perylene | 5.95 | 1.68 | 3.34 | 6.70 | I |
| 207-08-9 | Benzo(k)fluoranthene | 4.49 | 1.68 | 3.34 | 6.70 | I |
| 218-01-9 | Chrysene | 7.71 | 1.68 | 3.34 | 6.70 | |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.68 | 3.34 | 6.70 | U |
| 206-44-0 | Fluoranthene | 11.7 | 1.68 | 3.34 | 6.70 | |
| 86-73-7 | Fluorene | | 1.68 | 3.34 | 6.70 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.87 | 1.68 | 3.34 | 6.70 | I |
| 90-12-0 | 1-Methylnaphthalene | | 1.68 | 3.34 | 6.70 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.68 | 3.34 | 6.70 | U |
| 91-20-3 | Naphthalene | | 1.68 | 3.34 | 6.70 | U |
| 85-01-8 | Phenanthrene | 5.44 | 1.68 | 3.34 | 6.70 | I |
| 129-00-0 | Pyrene | 9.96 | 1.68 | 3.34 | 6.70 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3348 | 2656 | 79.3 | 14 - 129 | |
| Terphenyl-d14 | 3348 | 3282 | 98.0 | 14 - 129 | |

# ANALYSIS DATA SHEET

**FB12061101**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | Water | Laboratory ID: | 1112051-11 | File ID: | 1205111.D |
| Sampled: | 12/06/11 12:40 | Prepared: | 12/08/11 11:42 | Analyzed: | 12/21/11 15:27 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 1L08002 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0467 | 0.0935 | 0.187 | U |
| 208-96-8 | Acenaphthylene | | 0.0467 | 0.0935 | 0.187 | U |
| 120-12-7 | Anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0467 | 0.0935 | 0.187 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0467 | 0.0935 | 0.187 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 218-01-9 | Chrysene | | 0.0467 | 0.0935 | 0.187 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0467 | 0.0935 | 0.187 | U |
| 206-44-0 | Fluoranthene | | 0.0467 | 0.0935 | 0.187 | U |
| 86-73-7 | Fluorene | | 0.0467 | 0.0935 | 0.187 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0467 | 0.0935 | 0.187 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 91-20-3 | Naphthalene | | 0.0467 | 0.0935 | 0.187 | U |
| 85-01-8 | Phenanthrene | | 0.0935 | 0.187 | 0.374 | U |
| 129-00-0 | Pyrene | | 0.0467 | 0.0935 | 0.187 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 46.73 | 36.44 | 78.0 | 34 - 167 | |
| Terphenyl-d14 | 46.73 | 47.41 | 101 | 34 - 167 | |

# APPENDIX C

## SUPPORT DOCUMENTATION

# HOLDTIME

SDG 1112051

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| PAH | UG/KG | 05-SS-117-0002 | 1112051-13 | NM | 12/6/2011 | 12/8/2011 | 12/22/2011 | 2 | 14 | 16 |
| PAH | UG/KG | 05-SS-112-0406 | 1112051-02 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-113-0002 | 1112051-03 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-113-0406 | 1112051-04 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-114-0002 | 1112051-05 | NM | 12/6/2011 | 12/8/2011 | 12/22/2011 | 2 | 14 | 16 |
| PAH | UG/KG | 05-SS-114-0406 | 1112051-06 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-115-0002 | 1112051-07 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-112-0002 | 1112051-01 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-116-0002 | 1112051-10 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-117-0406 | 1112051-14 | NM | 12/6/2011 | 12/14/2011 | 12/28/2011 | 8 | 14 | 22 |
| PAH | UG/KG | 05-SS-118-0406 | 1112051-15 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-119-0406 | 1112051-17 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-120-0406 | 1112051-18 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-121-0406 | 1112051-19 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | FD12061101 | 1112051-08 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| PAH | UG/KG | FD12061102 | 1112051-16 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/KG | 05-SS-115-0406 | 1112051-09 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |
| PAH | UG/L | FB12061101 | 1112051-11 | NM | 12/6/2011 | 12/8/2011 | 12/21/2011 | 2 | 13 | 15 |

TETRA TECH NUS, INC. 111205 | CHAIN OF CUSTODY | NUMBER | PAGE ___ OF ___

| | |
|---|---|
| PROJECT NO: 112G02748 | SITE NAME: Sawfly Field Site 5 |
| PROJECT MANAGER AND PHONE NUMBER: Geoff Pope 901-523-9500 | LABORATORY NAME AND CONTACT: Empirical Brian Richards |
| SAMPLERS (SIGNATURE) | FIELD OPERATIONS LEADER AND PHONE NUMBER: Amber Jaye 850-322-8033 |
| | ADDRESS: 621 Mainstream Drive Suite 270 |
| CARRIER/WAYBILL NUMBER: 8755 7387 3989 | CITY, STATE: Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G)
PRESERVATIVE USED
TYPE OF ANALYSIS: SW 8270 PAH

| DATE (YEAR 12/6/11) | TIME | SAMPLE ID | MATRIX | GRAB (G) COMP (C) | No. OF CONTAINERS | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|
| 12/6/11 | 1104 | 05-SS-112-0002 | S | G | 1 | 1 | | 01 | |
| | 1128 | 05-SS-112-0406 | S | G | 1 | 1 | | 02 | |
| | 1137 | 05-SS-113-0002 | S | G | 1 | 1 | | 03 | |
| | 1146 | 05-SS-113-0406 | S | G | 1 | 1 | | 04 | |
| | 1156 | 05-SS-114-0002 | S | G | 1 | 1 | | 05 | |
| | 1203 | 05-SS-114-0406 | S | G | 1 | 1 | | 06 | |
| | 1216 | 05-SS-115-0002 | S | G | 2 | 2 | | 07 | |
| | 0000 | ~~05~~ FD120611 01 | S | G | 1 | 1 | | 08 | |
| | 1228 | 05-SS-115-0406 | S | G | 1 | 1 | | 09 | |
| | 1234 | 05-SS-116-0002 | S | G | 1 | 1 | | 10 | |
| * | 1240 | FB120611 01 | G | G | 2 | 2 | | 11 | |
| | 1244 | 05-SS-116-0406 | S | G | 1 | 1 | | 12 | Hold for analysis |
| | 1256 | 05-SS-117-0002 | S | G | 1 | 1 | | 13 | |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | 12/6/11 | 1512 | 1. RECEIVED BY | | |
| 2. RELINQUISHED BY | | | 2. RECEIVED BY | | |
| 3. RELINQUISHED BY | | | 3. RECEIVED BY | 12/7/11 | 1230 |

COMMENTS

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

3/99

FORM NO. TTNUS-001

1112051 Summ Package

9

TETRA TECH NUS, INC. 1112051 CHAIN OF CUSTODY NUMBER PAGE ___ OF ___

| PROJECT NO: | SITE NAME: | PROJECT MANAGER AND PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|
| 112G02748 | Scaffy Field Site 5 | Geoff Pope 901-523-9502 | Empirical Brian Richards |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER AND PHONE NUMBER: Amber Igue 850-322-8633 | ADDRESS: 621 Mainstream Drive Suite 270 |
| | | CARRIER/WAYBILL NUMBER: 8755 7397 3989 | CITY, STATE: Nashville TN 37228 |

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

CONTAINER TYPE PLASTIC (P) or GLASS (G)

PRESERVATIVE USED

TYPE OF ANALYSIS: PAH

| DATE YEAR 12/6/11 | TIME | SAMPLE ID | MATRIX | GRAB (G) COMP (C) | No. OF CONTAINERS | | | | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1310 | 05-SS-117-0406 | S | G | 1 | 1 | | 14 | | | | | | Hold for analysis |
| | 1345 | 05-SS-118-0406 | S | G | ~~1~~ 3 | ~~1~~ 3 | | 15 | | | | | | |
| | 0000 | FD120611 02 | S | G | 1 | 1 | | 16 | | | | | | |
| | 1356 | 05-SS-119-0406 | S | G | 1 | 1 | | 17 | | | | | | |
| | 1403 | 05-SS-120-0406 | S | G | 1 | 1 | | 18 | | | | | | |
| | 1409 | 05-SS-121-0406 | S | G | 1 | 1 | | 19 | | | | | | |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY | 12/6/11 | 1512 | 1. RECEIVED BY | | |
| 2. RELINQUISHED BY | | | 2. RECEIVED BY | | |
| 3. RELINQUISHED BY | | | 3. RECEIVED BY | 12/7/11 | 1230 |

COMMENTS

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

3/99
FORM NO. TtNUS-001

1112051 Summ Package

1112051

Cooler Received/Opened On_ 12/07/11 @ 1230

1. Tracking #_____3989_____(last 4 digits, FedEx)

Courier: ___FED-EX

2. Temperature of rep. sample or temp blank when opened: 0.6 *Degrees Celsius + correction factor 0.0* = 0.6

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1-FRONT

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence #_____

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCR generated? YES...NO...#_____

Additional Details:

WORK ORDER

**1112051**

Printed: 1/11/2012 10:54:48AM

# Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTOJM26 Saufley 2011

**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

**Report To:**
Tetra Tech NUS, Inc. (T010)
Tobrena Sedlmyer
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
661 Andersen Drive
Pittsburgh, PA 15220-2745
Phone :(412) 921-8182
Fax: (412) 921-4040

Date Due: 12/30/2011 16:00 (15 day TAT)
Received By: Benjamin C. Wright
Logged In By: Benjamin C. Wright

Date Received: 12/07/2011 12:30
Date Logged In 12/07/2011 14:08

Samples Received at: **0.6°C**

| | | | |
|---|---|---|---|
| Custody Seals | Yes | Received On Ice | Yes |
| Containers Intact | Yes | | |
| COC/Labels Agree | Yes | | |
| Preservation Confir | No | | |

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1112051-01 05-SS-112-0002 [Solid] Sampled 12/06/2011 11:04 Central** | | | | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 11:04 | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 11:04 | | |
| **1112051-02 05-SS-112-0406 [Solid] Sampled 12/06/2011 11:28 Central** | | | | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 11:28 | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 11:28 | | |
| **1112051-03 05-SS-113-0002 [Solid] Sampled 12/06/2011 11:37 Central** | | | | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 11:37 | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 11:37 | | |

WORK ORDER

1112051

Printed: 1/11/2012 10:54:48AM

# Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTOJM26 Saufley 2011

**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1112051-04 05-SS-113-0406 [Solid] Sampled 12/06/2011 11:46 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 11:46 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 11:46 | | |
| **1112051-05 05-SS-114-0002 [Solid] Sampled 12/06/2011 11:56 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 11:56 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 11:56 | | |
| **1112051-06 05-SS-114-0406 [Solid] Sampled 12/06/2011 12:03 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 12:03 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 12:03 | | |
| **1112051-07 05-SS-115-0002 [Solid] Sampled 12/06/2011 12:16 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 12:16 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 12:16 | | |
| **1112051-08 FD12061101 [Solid] Sampled 12/06/2011 00:00 Central** | | | | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 00:00 | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 00:00 | | |
| **1112051-09 05-SS-115-0406 [Solid] Sampled 12/06/2011 12:28 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 12:28 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 12:28 | | |
| **1112051-10 05-SS-116-0002 [Solid] Sampled 12/06/2011 12:34 Central** | | | | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 12:34 | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 12:34 | | |

WORK ORDER

**1112051**

Printed: 1/11/2012 10:54:48AM

## Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTOJM26 Saufley 2011

**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1112051-11 FB12061101 [Water] Sampled 12/06/2011 12:40 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/13/2011 12:40 | | |
| **1112051-12 05-SS-116-0406 [Solid] Sampled 12/06/2011 12:44 Central** | | | | | **EXTRACT AND HOLD!!!** |
| SM2540B (Hold) | 12/27/2011 14:00 | 15 | 12/13/2011 12:44 | | |
| SW8270D (Hold) | 12/27/2011 14:00 | 15 | 12/20/2011 12:44 | | EXTRACT AND HOLD!!! |
| **1112051-13 05-SS-117-0002 [Solid] Sampled 12/06/2011 12:56 Central** | | | | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 12:56 | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 12:56 | | |
| **1112051-14 05-SS-117-0406 [Solid] Sampled 12/06/2011 13:10 Central** | | | | | **EXTRACT AND HOLD!!!** |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 13:10 | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 13:10 | | EXTRACT AND HOLD!!! |
| **1112051-15 05-SS-118-0406 [Solid] Sampled 12/06/2011 13:45 Central** | | | | | **MS/MSD.** |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 13:45 | | MS/MSD. |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 13:45 | | MS/MSD. |
| **1112051-16 FD12061102 [Solid] Sampled 12/06/2011 00:00 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 00:00 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 00:00 | | |
| **1112051-17 05-SS-119-0406 [Solid] Sampled 12/06/2011 13:56 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 13:56 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 13:56 | | |

WORK ORDER

1112051

Printed: 1/11/2012 10:54:48AM

# Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTOJM26 Saufley 2011

**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

| Analysis | Due | TAT | Expires | Version | Comments |
|---|---|---|---|---|---|
| **1112051-18 05-SS-120-0406 [Solid] Sampled 12/06/2011 14:03 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 14:03 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 14:03 | | |
| **1112051-19 05-SS-121-0406 [Solid] Sampled 12/06/2011 14:09 Central** | | | | | |
| SW8270D | 12/27/2011 14:00 | 15 | 12/20/2011 14:09 | | |
| SM2540B | 12/27/2011 14:00 | 15 | 12/13/2011 14:09 | | |

## Sample Delivery Group Assignment Form

CLIENT: Tetra Tech NUS, Inc. (T010)
PROJECT NAME: NAS Pensacola CTOJM26 Saufley 2011
SDG #: 1112051
MATRIX: Solid

QC LEVEL: Level IV
Report Due: 12/30/2011
Client Sample Count: 18

| Sample Type | Sampled | Received | Lab ID | Client ID | SM2540B | SW8270D |
|---|---|---|---|---|---|---|
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-01 | 05-SS-112-0002 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-02 | 05-SS-112-0406 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-03 | 05-SS-113-0002 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-04 | 05-SS-113-0406 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-05 | 05-SS-114-0002 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-06 | 05-SS-114-0406 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-07 | 05-SS-115-0002 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-08 | FD12061101 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-09 | 05-SS-115-0406 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-10 | 05-SS-116-0002 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-11 | FB12061101 | | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-12 | 05-SS-116-0406 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-13 | 05-SS-117-0002 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-14 | 05-SS-117-0406 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-15 | 05-SS-118-0406 | MS/MSD. | MS/MSD. |
| Field Duplicate | 12/6/2011 | 12/7/2011 | 1112051-16 | FD12061102 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-17 | 05-SS-119-0406 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-18 | 05-SS-120-0406 | X | X |
| Client Sample | 12/6/2011 | 12/7/2011 | 1112051-19 | 05-SS-121-0406 | X | X |

## Sample Delivery Group Case Narrative

**Receipt Information**
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

As per the CoC, samples 1112051-12 and -14 were extracted then held for analysis. Sample 1112051-14 was removed from hold and requested for analysis but sample 1112051-12 was not. There were no subcontracted analyses for this SDG.

**Changes to the Revision**
This is an original submittal of the final report package.

**Analytical Information**
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. Sample prep and dilution information is provided within the final results report and at the beginning of each form set. The following information is provided specific to individual methods:

**Chromatographic Flags for Manual Integration:**
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8270D PAH:**
As per the CoC, samples 1112051-12 and -14 were extracted then held for analysis. Sample 1112051-14 was removed from hold and requested for analysis but sample 1112051-12 was not.

No additional anomalies or deviations are noted.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

## Analytical Report Terms and Qualifiers

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.2 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.2 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.2 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*****: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And **"RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity or an approved technical designee is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

## ORGANIC CALCULATIONS

**GC/MS Volatiles**

$$\text{Final Concentration} = \frac{\text{On-column(ug/L or ug/Kg) * Expected Vol/Weight (mL or g) * Dilution}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

***Note - Expected Vol/Weight value is found in "Final Vol" column of Preparation Batch Summary.***

**GC/MS Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/uL) * Final Vol (ml) * Dilution *(1000uL/mL)}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g

= ug/L or ug/kg

**GC or LC Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/mL) * Final Vol (mL) * Dilution}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g

= ug/L or ug/kg

# Data for SW8270D (PAH) Forms

# HOLDING TIME SUMMARY
## SW8270D

Laboratory: Empirical Laboratories, LLC SDG: 1112051

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SS-112-0002 | 12/06/11 11:04 | 12/07/11 12:30 | 12/08/11 09:00 | 1.91 | 14.00 | 12/21/11 23:42 | 13.61 | 40.00 | |
| 05-SS-112-0406 | 12/06/11 11:28 | 12/07/11 12:30 | 12/08/11 09:00 | 1.90 | 14.00 | 12/21/11 16:51 | 13.33 | 40.00 | |
| 05-SS-113-0002 | 12/06/11 11:37 | 12/07/11 12:30 | 12/08/11 09:00 | 1.89 | 14.00 | 12/21/11 17:18 | 13.35 | 40.00 | |
| 05-SS-113-0406 | 12/06/11 11:46 | 12/07/11 12:30 | 12/08/11 09:00 | 1.88 | 14.00 | 12/21/11 17:46 | 13.37 | 40.00 | |
| 05-SS-114-0002 | 12/06/11 11:56 | 12/07/11 12:30 | 12/08/11 09:00 | 1.88 | 14.00 | 12/22/11 00:10 | 13.63 | 40.00 | |
| 05-SS-114-0406 | 12/06/11 12:03 | 12/07/11 12:30 | 12/08/11 09:00 | 1.87 | 14.00 | 12/21/11 18:13 | 13.38 | 40.00 | |
| 05-SS-115-0002 | 12/06/11 12:16 | 12/07/11 12:30 | 12/08/11 09:00 | 1.86 | 14.00 | 12/21/11 22:47 | 13.57 | 40.00 | |
| FD12061101 | 12/06/11 00:00 | 12/07/11 12:30 | 12/08/11 09:00 | 2.38 | 14.00 | 12/21/11 23:14 | 13.59 | 40.00 | |
| 05-SS-115-0406 | 12/06/11 12:28 | 12/07/11 12:30 | 12/08/11 09:00 | 1.86 | 14.00 | 12/21/11 18:41 | 13.40 | 40.00 | |
| 05-SS-116-0002 | 12/06/11 12:34 | 12/07/11 12:30 | 12/08/11 09:00 | 1.85 | 14.00 | 12/21/11 19:08 | 13.42 | 40.00 | |
| FB12061101 | 12/06/11 12:40 | 12/07/11 12:30 | 12/08/11 11:42 | 1.96 | 7.00 | 12/21/11 15:27 | 13.16 | 40.00 | |
| 05-SS-117-0002 | 12/06/11 12:56 | 12/07/11 12:30 | 12/08/11 09:00 | 1.84 | 14.00 | 12/22/11 00:38 | 13.65 | 40.00 | |
| 05-SS-117-0406 | 12/06/11 13:10 | 12/07/11 12:30 | 12/14/11 09:45 | 7.86 | 14.00 | 12/28/11 21:11 | 14.48 | 40.00 | |
| 05-SS-118-0406 | 12/06/11 13:45 | 12/07/11 12:30 | 12/08/11 09:00 | 1.80 | 14.00 | 12/21/11 19:35 | 13.44 | 40.00 | |
| FD12061102 | 12/06/11 00:00 | 12/07/11 12:30 | 12/08/11 09:00 | 2.38 | 14.00 | 12/21/11 20:57 | 13.50 | 40.00 | |
| 05-SS-119-0406 | 12/06/11 13:56 | 12/07/11 12:30 | 12/08/11 09:00 | 1.79 | 14.00 | 12/21/11 21:24 | 13.52 | 40.00 | |
| 05-SS-120-0406 | 12/06/11 14:03 | 12/07/11 12:30 | 12/08/11 09:00 | 1.79 | 14.00 | 12/21/11 21:52 | 13.54 | 40.00 | |
| 05-SS-121-0406 | 12/06/11 14:09 | 12/07/11 12:30 | 12/08/11 09:00 | 1.79 | 14.00 | 12/21/11 22:19 | 13.55 | 40.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1H23712 | Instrument: | MS-BNA4 |
| Calibration: | 1238006 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1H23712-TUN1 | SEQ-TUN1.D | 08/24/11 14:16 |
| Cal Standard | 1H23712-CAL1 | SEQ-CAL1.D | 08/24/11 14:35 |
| Cal Standard | 1H23712-CAL2 | SEQ-CAL2.D | 08/24/11 15:05 |
| Cal Standard | 1H23712-CAL3 | SEQ-CAL3.D | 08/24/11 15:35 |
| Cal Standard | 1H23712-CAL4 | SEQ-CAL4.D | 08/24/11 16:05 |
| Cal Standard | 1H23712-CAL5 | SEQ-CAL5.D | 08/24/11 16:35 |
| Cal Standard | 1H23712-CAL6 | SEQ-CAL6.D | 08/24/11 17:05 |
| Cal Standard | 1H23712-CAL7 | SEQ-CAL7.D | 08/24/11 17:34 |
| Cal Standard | 1H23712-CAL9 | SEQ-CAL9.D | 08/24/11 18:33 |
| Initial Cal Check | 1H23712-ICV1 | SEQ-ICV1.D | 08/24/11 19:02 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 08/24/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 14:16 |
| Sequence: | 1H23712 | Lab Sample ID: | 1H23712-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 46.6 | PASS |
| 68 | Less than 2% of 69 | 1.46 | PASS |
| 69 | Less than 200% of 198 | 49.8 | PASS |
| 70 | Less than 2% of 69 | 0.379 | PASS |
| 127 | 40 - 60% of 198 | 57.3 | PASS |
| 197 | Less than 1% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.71 | PASS |
| 275 | 10 - 30% of 198 | 25 | PASS |
| 365 | 1 - 200% of 198 | 3.37 | PASS |
| 441 | 0.001 - 100% of 443 | 79.7 | PASS |
| 442 | 40 - 200% of 198 | 97.7 | PASS |
| 443 | 17 - 23% of 442 | 19.5 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Calibration: | 1238006 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 8/24/11 14:35 8/24/11 18:33 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.8881147 | 4.765862 | 8.240375 | 8.005672E-02 | | | 15 | |
| Acenaphthylene | 1.295328 | 4.367363 | 8.027625 | 8.607367E-02 | | | 15 | |
| Anthracene | 1.140544 | 4.254591 | 10.10862 | 0.0700752 | | | 15 | |
| Benzo(a)anthracene | 0.6970627 | 14.59061 | 13.80988 | 0.0529908 | | | 15 | |
| Benzo(a)pyrene | 1.125376 | 11.34597 | 16.38237 | 4.577814E-02 | | | 15 | |
| Benzo(b)fluoranthene | 1.335075 | 13.04297 | 15.80187 | 8.137397E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.8163407 | 8.478144 | 18.8055 | 4.843521E-02 | | | 15 | |
| Benzo(k)fluoranthene | 1.351132 | 6.606248 | 15.85263 | 0.0761119 | | | 15 | |
| Chrysene | 0.7018849 | 11.75411 | 13.87237 | 4.522786E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.792152 | 14.22527 | 18.3905 | 4.438511E-02 | | | 15 | |
| Fluoranthene | 1.095824 | 8.181104 | 11.52912 | 1.610412E-02 | | | 15 | |
| Fluorene | 0.8469727 | 7.646974 | 8.87125 | 4.967807E-02 | | | 15 | |
| 2-Fluorobiphenyl | 0.9449172 | 5.432361 | 7.39325 | 5.511184E-02 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 0.807297 | 8.877407 | 18.33625 | 0.0475878 | | | 15 | |
| 1-Methylnaphthalene | 0.8645271 | 7.716576 | 7.057125 | 4.664672E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.8917256 | 7.590679 | 6.94225 | 9.738335E-02 | | | 15 | |
| Naphthalene | 1.488499 | 9.765898 | 6.111375 | 7.795345E-02 | | | 15 | |
| Phenanthrene | 1.163651 | 3.638206 | 10.04475 | 7.061639E-02 | | | 15 | |
| Pyrene | 1.112402 | 6.963902 | 11.839 | 6.221472E-02 | | | 15 | |
| Terphenyl-d14 | 0.6342447 | 8.591082 | 12.10513 | 2.846396E-02 | | | 15 | |
| 2,4,6-Tribromophenol | 0.173125 | 9.199082 | 9.170834 | 8.799438E-02 | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 1238006 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 08/24/11 14:16 |
| Sequence: | 1H23712 | Injection Date: | 08/24/11 |
| Lab Sample ID: | 1H23712-ICV1 | Injection Time: | 19:02 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.510 | 0.8881147 | 0.9786847 | | 10.2 | 20 |
| Acenaphthylene | A | 5.000 | 5.578 | 1.295328 | 1.445077 | | 11.6 | 20 |
| Anthracene | A | 5.000 | 5.626 | 1.140544 | 1.283382 | | 12.5 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.418 | 0.6970627 | 0.7552943 | | 8.4 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.079 | 1.125376 | 1.143152 | | 1.6 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.229 | 1.335075 | 1.39628 | | 4.6 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.076 | 0.8163407 | 0.8286846 | | 1.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.414 | 1.351132 | 1.462908 | | 8.3 | 20 |
| Chrysene | A | 5.000 | 5.424 | 0.7018849 | 0.7614294 | | 8.5 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.548 | 0.792152 | 0.8789424 | | 11.0 | 20 |
| Fluoranthene | A | 5.000 | 5.359 | 1.095824 | 1.174563 | | 7.2 | 20 |
| Fluorene | A | 5.000 | 5.736 | 0.8469727 | 0.9715661 | | 14.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.009 | 0.807297 | 0.808753 | | 0.2 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.971 | 0.8645271 | 0.8594861 | | -0.6 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.068 | 0.8917256 | 0.9037654 | | 1.4 | 20 |
| Naphthalene | A | 5.000 | 5.687 | 1.488499 | 1.69304 | | 13.7 | 20 |
| Phenanthrene | A | 5.000 | 5.574 | 1.163651 | 1.297238 | | 11.5 | 20 |
| Pyrene | A | 5.000 | 5.539 | 1.112402 | 1.232241 | | 10.8 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.058 | 0.9449172 | 0.9558622 | | 1.2 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.406 | 0.6342447 | 0.6857866 | | 8.1 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1L36102 | Instrument: | MS-BNA4 |
| Calibration: | 1238006 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1L36102-TUN1 | SEQ-TUN1.D | 12/21/11 13:18 |
| Calibration Check | 1L36102-CCV1 | SEQ-CCV1.D | 12/21/11 13:36 |
| LCS | 1L08002-BS2 | L08002L1.D | 12/21/11 14:04 |
| LCS Dup | 1L08002-BSD2 | L08002L2.D | 12/21/11 14:32 |
| Blank | 1L08002-BLK2 | L08002B1.D | 12/21/11 15:00 |
| FB12061101 | 1112051-11 | 1205111.D | 12/21/11 15:27 |
| LCS | 1L08004-BS1 | L08004L1.D | 12/21/11 15:55 |
| Blank | 1L08004-BLK1 | L08004B1.D | 12/21/11 16:23 |
| 05-SS-112-0406 | 1112051-02 | 1205102.D | 12/21/11 16:51 |
| 05-SS-113-0002 | 1112051-03 | 1205103.D | 12/21/11 17:18 |
| 05-SS-113-0406 | 1112051-04 | 1205104.D | 12/21/11 17:46 |
| 05-SS-114-0406 | 1112051-06 | 1205106.D | 12/21/11 18:13 |
| 05-SS-115-0406 | 1112051-09 | 1205109.D | 12/21/11 18:41 |
| 05-SS-116-0002 | 1112051-10 | 1205110.D | 12/21/11 19:08 |
| 05-SS-118-0406 | 1112051-15 | 1205115.D | 12/21/11 19:35 |
| 05-SS-118-0406 | 1L08004-MS1 | 1205115M.D | 12/21/11 20:03 |
| 05-SS-118-0406 | 1L08004-MSD1 | 1205115S.D | 12/21/11 20:30 |
| FD12061102 | 1112051-16 | 1205116.D | 12/21/11 20:57 |
| 05-SS-119-0406 | 1112051-17 | 1205117.D | 12/21/11 21:24 |
| 05-SS-120-0406 | 1112051-18 | 1205118.D | 12/21/11 21:52 |
| 05-SS-121-0406 | 1112051-19 | 1205119.D | 12/21/11 22:19 |
| 05-SS-115-0002 | 1112051-07 | 1205107.D | 12/21/11 22:47 |
| FD12061101 | 1112051-08 | 1205108.D | 12/21/11 23:14 |
| 05-SS-112-0002 | 1112051-01 | 1205101D.D | 12/21/11 23:42 |
| 05-SS-114-0002 | 1112051-05 | 1205105D.D | 12/22/11 00:10 |
| 05-SS-117-0002 | 1112051-13 | 1205113D.D | 12/22/11 00:38 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 12/21/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 13:18 |
| Sequence: | 1L36102 | Lab Sample ID: | 1L36102-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 45.4 | PASS |
| 68 | Less than 2% of 69 | 1.78 | PASS |
| 69 | Less than 200% of 198 | 53.6 | PASS |
| 70 | Less than 2% of 69 | 0.522 | PASS |
| 127 | 40 - 60% of 198 | 56.2 | PASS |
| 197 | Less than 1% of 198 | 0.852 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7 | PASS |
| 275 | 10 - 30% of 198 | 20.7 | PASS |
| 365 | 1 - 200% of 198 | 1.91 | PASS |
| 441 | 0.001 - 100% of 443 | 80.9 | PASS |
| 442 | 40 - 200% of 198 | 56.9 | PASS |
| 443 | 17 - 23% of 442 | 20.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 1238006 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 08/24/11 14:16 |
| Sequence: | 1L36102 | Injection Date: | 12/21/11 |
| Lab Sample ID: | 1L36102-CCV1 | Injection Time: | 13:36 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.913 | 0.8881147 | 0.8727409 | | -1.7 | 20 |
| Acenaphthylene | A | 5.000 | 4.938 | 1.295328 | 1.279159 | | -1.2 | 20 |
| Anthracene | A | 5.000 | 4.691 | 1.140544 | 1.069977 | | -6.2 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.389 | 0.6970627 | 0.7513214 | | 7.8 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.667 | 1.125376 | 1.05055 | | -6.6 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.738 | 1.335075 | 1.265079 | | -5.2 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.740 | 0.8163407 | 0.7739735 | | -5.2 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.109 | 1.351132 | 1.380501 | | 2.2 | 20 |
| Chrysene | A | 5.000 | 5.091 | 0.7018849 | 0.7146032 | | 1.8 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.686 | 0.792152 | 0.7423427 | | -6.3 | 20 |
| Fluoranthene | A | 5.000 | 4.952 | 1.095824 | 1.085431 | | -0.9 | 20 |
| Fluorene | A | 5.000 | 5.069 | 0.8469727 | 0.8586412 | | 1.4 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.597 | 0.807297 | 0.7421937 | | -8.1 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.947 | 0.8645271 | 0.8553372 | | -1.1 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.989 | 0.8917256 | 0.8896997 | | -0.2 | 20 |
| Naphthalene | A | 5.000 | 4.780 | 1.488499 | 1.422883 | | -4.4 | 20 |
| Phenanthrene | A | 5.000 | 4.738 | 1.163651 | 1.102663 | | -5.2 | 20 |
| Pyrene | A | 5.000 | 4.861 | 1.112402 | 1.081506 | | -2.8 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 5.204 | 0.9449172 | 0.9835831 | | 4.1 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.512 | 0.6342447 | 0.6992478 | | 10.2 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1L36307 | Instrument: | MS-BNA4 |
| Calibration: | 1238006 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 1L36307-TUN1 | SEQ-TUN1.D | 12/28/11 13:36 |
| Calibration Check | 1L36307-CCV1 | SEQ-CCV1.D | 12/28/11 13:54 |
| LCS | 1L12009-BS2 | L12009L1.D | 12/28/11 14:22 |
| LCS Dup | 1L12009-BSD2 | L12009L2.D | 12/28/11 14:49 |
| Blank | 1L12009-BLK2 | L12009B1.D | 12/28/11 15:17 |
| 05-SS-117-0406 | 1112051-14 | 1205114.D | 12/28/11 21:11 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 12/28/11 |
| Instrument ID: | MS-BNA4 | Injection Time: | 13:36 |
| Sequence: | 1L36307 | Lab Sample ID: | 1L36307-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 38.7 | PASS |
| 68 | Less than 2% of 69 | 1.91 | PASS |
| 69 | Less than 200% of 198 | 45.9 | PASS |
| 70 | Less than 2% of 69 | 0.522 | PASS |
| 127 | 40 - 60% of 198 | 52.4 | PASS |
| 197 | Less than 1% of 198 | 0.717 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.13 | PASS |
| 275 | 10 - 30% of 198 | 23.4 | PASS |
| 365 | 1 - 200% of 198 | 2.46 | PASS |
| 441 | 0.001 - 100% of 443 | 80.7 | PASS |
| 442 | 40 - 200% of 198 | 76.9 | PASS |
| 443 | 17 - 23% of 442 | 20.1 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 1238006 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 08/24/11 14:16 |
| Sequence: | 1L36307 | Injection Date: | 12/28/11 |
| Lab Sample ID: | 1L36307-CCV1 | Injection Time: | 13:54 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.554 | 0.8881147 | 0.8089066 | | -8.9 | 20 |
| Acenaphthylene | A | 5.000 | 4.591 | 1.295328 | 1.189485 | | -8.2 | 20 |
| Anthracene | A | 5.000 | 4.377 | 1.140544 | 0.9985027 | | -12.5 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.700 | 0.6970627 | 0.6553056 | | -6.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.316 | 1.125376 | 0.9715324 | | -13.7 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 4.237 | 1.335075 | 1.131287 | | -15.3 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.102 | 0.8163407 | 0.8330488 | | 2.0 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.578 | 1.351132 | 1.23698 | | -8.4 | 20 |
| Chrysene | A | 5.000 | 4.719 | 0.7018849 | 0.6624748 | | -5.6 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.827 | 0.792152 | 0.7647595 | | -3.5 | 20 |
| Fluoranthene | A | 5.000 | 4.651 | 1.095824 | 1.0194 | | -7.0 | 20 |
| Fluorene | A | 5.000 | 4.754 | 0.8469727 | 0.8052297 | | -4.9 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.785 | 0.807297 | 0.7725374 | | -4.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.567 | 0.8645271 | 0.7896358 | | -8.7 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.507 | 0.8917256 | 0.8038177 | | -9.9 | 20 |
| Naphthalene | A | 5.000 | 4.319 | 1.488499 | 1.285908 | | -13.6 | 20 |
| Phenanthrene | A | 5.000 | 4.503 | 1.163651 | 1.047972 | | -9.9 | 20 |
| Pyrene | A | 5.000 | 4.638 | 1.112402 | 1.031999 | | -7.2 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.843 | 0.9449172 | 0.9153192 | | -3.1 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.339 | 0.6342447 | 0.6773092 | | 6.8 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270D

Laboratory: Empirical Laboratories, LLC SDG: 1112051

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 1L08002 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| FB12061101 | 1112051-11 | 12/08/11 11:42 | 1,070.00 | 1.00 |
| Blank | 1L08002-BLK2 | 12/08/11 11:42 | 1,000.00 | 1.00 |
| LCS | 1L08002-BS2 | 12/08/11 11:42 | 1,000.00 | 1.00 |
| LCS Dup | 1L08002-BSD2 | 12/08/11 11:42 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC SDG: 1112051

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 20

Matrix: Laboratory ID: 1L08002-BLK2 File ID: L08002B1.D

Sampled: Prepared: Analyzed: 12/21/11 15:00

Solids: Preparation: EXT_3510 Dilution:

Batch: 1L08002 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.100 | 0.200 | 0.400 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 32.95 | 65.9 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 47.25 | 94.5 | 34 - 167 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Water | | |
| Batch: | 1L08002 | Laboratory ID: | 1L08002-BS2 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 1.000 | 0.8096 | 81.0 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.7418 | 74.2 | 43 - 140 |
| Anthracene | 1.000 | 0.8076 | 80.8 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 0.8413 | 84.1 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.7472 | 74.7 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.8578 | 85.8 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.8736 | 87.4 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 0.8904 | 89.0 | 49 - 165 |
| Chrysene | 1.000 | 0.8499 | 85.0 | 51 - 155 |
| Dibenz(a,h)anthracene | 1.000 | 0.8409 | 84.1 | 28 - 153 |
| Fluoranthene | 1.000 | 0.9202 | 92.0 | 47 - 158 |
| Fluorene | 1.000 | 0.8566 | 85.7 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.8122 | 81.2 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.8063 | 80.6 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.8056 | 80.6 | 36 - 121 |
| Naphthalene | 1.000 | 0.7778 | 77.8 | 39 - 125 |
| Phenanthrene | 1.000 | 0.9923 | 99.2 | 46 - 144 |
| Pyrene | 1.000 | 0.8725 | 87.2 | 39 - 158 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 1.000 | 0.7083 | 70.8 | 13.3 | 30 | 41 - 132 |
| Acenaphthylene | 1.000 | 0.6274 | 62.7 | 16.7 | 30 | 43 - 140 |
| Anthracene | 1.000 | 0.7142 | 71.4 | 12.3 | 30 | 50 - 139 |
| Benzo(a)anthracene | 1.000 | 0.8198 | 82.0 | 2.59 | 30 | 58 - 141 |
| Benzo(a)pyrene | 1.000 | 0.6895 | 68.9 | 8.04 | 30 | 31 - 142 |
| Benzo(b)fluoranthene | 1.000 | 0.7406 | 74.1 | 14.7 | 30 | 42 - 156 |
| Benzo(g,h,i)perylene | 1.000 | 0.8747 | 87.5 | 0.125 | 30 | 12 - 171 |
| Benzo(k)fluoranthene | 1.000 | 0.7868 | 78.7 | 12.4 | 30 | 49 - 165 |
| Chrysene | 1.000 | 0.7830 | 78.3 | 8.19 | 30 | 51 - 155 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Water | | |
| Batch: | 1L08002 | Laboratory ID: | 1L08002-BSD2 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 1.000 | 0.7492 | 74.9 | 11.5 | 30 | 28 - 153 |
| Fluoranthene | 1.000 | 0.8158 | 81.6 | 12.0 | 30 | 47 - 158 |
| Fluorene | 1.000 | 0.7567 | 75.7 | 12.4 | 30 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 1.000 | 0.8132 | 81.3 | 0.121 | 30 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.6787 | 67.9 | 17.2 | 30 | 35 - 131 |
| 2-Methylnaphthalene | 1.000 | 0.6978 | 69.8 | 14.3 | 30 | 36 - 121 |
| Naphthalene | 1.000 | 0.6816 | 68.2 | 13.2 | 30 | 39 - 125 |
| Phenanthrene | 1.000 | 0.8306 | 83.1 | 17.7 | 30 | 46 - 144 |
| Pyrene | 1.000 | 0.8003 | 80.0 | 8.63 | 30 | 39 - 158 |

# PREPARATION BATCH SUMMARY

## SW8270D

Laboratory: Empirical Laboratories, LLC SDG: 1112051

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 1L08004 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-112-0002 | 1112051-01 | 12/08/11 09:00 | 15.60 | 1.00 |
| 05-SS-112-0406 | 1112051-02 | 12/08/11 09:00 | 15.20 | 1.00 |
| 05-SS-113-0002 | 1112051-03 | 12/08/11 09:00 | 15.40 | 1.00 |
| 05-SS-113-0406 | 1112051-04 | 12/08/11 09:00 | 15.60 | 1.00 |
| 05-SS-114-0002 | 1112051-05 | 12/08/11 09:00 | 15.50 | 1.00 |
| 05-SS-114-0406 | 1112051-06 | 12/08/11 09:00 | 15.20 | 1.00 |
| 05-SS-115-0002 | 1112051-07 | 12/08/11 09:00 | 15.70 | 1.00 |
| FD12061101 | 1112051-08 | 12/08/11 09:00 | 15.10 | 1.00 |
| 05-SS-115-0406 | 1112051-09 | 12/08/11 09:00 | 15.10 | 1.00 |
| 05-SS-116-0002 | 1112051-10 | 12/08/11 09:00 | 15.40 | 1.00 |
| 05-SS-117-0002 | 1112051-13 | 12/08/11 09:00 | 15.70 | 1.00 |
| 05-SS-118-0406 | 1112051-15 | 12/08/11 09:00 | 15.60 | 1.00 |
| FD12061102 | 1112051-16 | 12/08/11 09:00 | 15.70 | 1.00 |
| 05-SS-119-0406 | 1112051-17 | 12/08/11 09:00 | 15.60 | 1.00 |
| 05-SS-120-0406 | 1112051-18 | 12/08/11 09:00 | 15.40 | 1.00 |
| 05-SS-121-0406 | 1112051-19 | 12/08/11 09:00 | 15.70 | 1.00 |
| Blank | 1L08004-BLK1 | 12/08/11 09:00 | 15.00 | 1.00 |
| LCS | 1L08004-BS1 | 12/08/11 09:00 | 15.00 | 1.00 |
| 05-SS-118-0406 | 1L08004-MS1 | 12/08/11 09:00 | 15.20 | 1.00 |
| 05-SS-118-0406 | 1L08004-MSD1 | 12/08/11 09:00 | 15.20 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

Laboratory: Empirical Laboratories, LLC SDG: 1112051

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 20

Matrix: Laboratory ID: 1L08004-BLK1 File ID: L08004B1.D

Sampled: Prepared: Analyzed: 12/21/11 16:23

Solids: Preparation: EXT_3546 Dilution:

Batch: 1L08004 Sequence: 1L36102 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (ug/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.67 | 3.33 | 6.67 | U |
| 208-96-8 | Acenaphthylene | | 1.67 | 3.33 | 6.67 | U |
| 120-12-7 | Anthracene | | 1.67 | 3.33 | 6.67 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.67 | 3.33 | 6.67 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.67 | 3.33 | 6.67 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.67 | 3.33 | 6.67 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 218-01-9 | Chrysene | | 1.67 | 3.33 | 6.67 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.67 | 3.33 | 6.67 | U |
| 206-44-0 | Fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 86-73-7 | Fluorene | | 1.67 | 3.33 | 6.67 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.67 | 3.33 | 6.67 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.67 | 3.33 | 6.67 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.67 | 3.33 | 6.67 | U |
| 91-20-3 | Naphthalene | | 1.67 | 3.33 | 6.67 | U |
| 85-01-8 | Phenanthrene | | 1.67 | 3.33 | 6.67 | U |
| 129-00-0 | Pyrene | | 1.67 | 3.33 | 6.67 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg wet) | CONC (ug/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3333 | 2570 | 77.1 | 14 - 129 | |
| Terphenyl-d14 | 3333 | 3153 | 94.6 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Solid | | |
| Batch: | 1L08004 | Laboratory ID: | 1L08004-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (ug/Kg wet) | LCS CONCENTRATION (ug/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 66.67 | 52.68 | 79.0 | 28 - 110 |
| Acenaphthylene | 66.67 | 47.52 | 71.3 | 23 - 126 |
| Anthracene | 66.67 | 53.69 | 80.5 | 28 - 136 |
| Benzo(a)anthracene | 66.67 | 58.68 | 88.0 | 31 - 146 |
| Benzo(a)pyrene | 66.67 | 50.36 | 75.5 | 28 - 128 |
| Benzo(b)fluoranthene | 66.67 | 51.87 | 77.8 | 30 - 139 |
| Benzo(g,h,i)perylene | 66.67 | 58.68 | 88.0 | 21 - 149 |
| Benzo(k)fluoranthene | 66.67 | 54.62 | 81.9 | 42 - 129 |
| Chrysene | 66.67 | 60.12 | 90.2 | 39 - 134 |
| Dibenz(a,h)anthracene | 66.67 | 57.46 | 86.2 | 30 - 138 |
| Fluoranthene | 66.67 | 57.29 | 85.9 | 30 - 142 |
| Fluorene | 66.67 | 54.53 | 81.8 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 66.67 | 54.93 | 82.4 | 17 - 164 |
| 1-Methylnaphthalene | 66.67 | 50.88 | 76.3 | 30 - 111 |
| 2-Methylnaphthalene | 66.67 | 53.41 | 80.1 | 30 - 111 |
| Naphthalene | 66.67 | 50.54 | 75.8 | 29 - 106 |
| Phenanthrene | 66.67 | 56.03 | 84.0 | 32 - 127 |
| Pyrene | 66.67 | 57.49 | 86.2 | 28 - 130 |

# PREPARATION BATCH SUMMARY

## SW8270D

Laboratory: Empirical Laboratories, LLC SDG: 1112051

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 1L12009 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SS-117-0406 | 1112051-14 | 12/14/11 09:45 | 15.20 | 1.00 |
| Blank | 1L12009-BLK2 | 12/14/11 09:45 | 15.00 | 1.00 |
| LCS | 1L12009-BS2 | 12/14/11 09:45 | 15.00 | 1.00 |
| LCS Dup | 1L12009-BSD2 | 12/14/11 09:45 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1112051 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | | Laboratory ID: | 1L12009-BLK2 | File ID: | L12009B1.D |
| Sampled: | | Prepared: | | Analyzed: | 12/28/11 15:17 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 1L12009 Sequence: 1L36307 Calibration: 1238006 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (ug/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.67 | 3.33 | 6.67 | U |
| 208-96-8 | Acenaphthylene | | 1.67 | 3.33 | 6.67 | U |
| 120-12-7 | Anthracene | | 1.67 | 3.33 | 6.67 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.67 | 3.33 | 6.67 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.67 | 3.33 | 6.67 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.67 | 3.33 | 6.67 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 218-01-9 | Chrysene | | 1.67 | 3.33 | 6.67 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.67 | 3.33 | 6.67 | U |
| 206-44-0 | Fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 86-73-7 | Fluorene | | 1.67 | 3.33 | 6.67 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.67 | 3.33 | 6.67 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.67 | 3.33 | 6.67 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.67 | 3.33 | 6.67 | U |
| 91-20-3 | Naphthalene | | 1.67 | 3.33 | 6.67 | U |
| 85-01-8 | Phenanthrene | | 1.67 | 3.33 | 6.67 | U |
| 129-00-0 | Pyrene | | 1.67 | 3.33 | 6.67 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg wet) | CONC (ug/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3333 | 2508 | 75.2 | 14 - 129 | |
| Terphenyl-d14 | 3333 | 3229 | 96.9 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Solid | | |
| Batch: | 1L12009 | Laboratory ID: | 1L12009-BS2 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (ug/Kg wet) | LCS CONCENTRATION (ug/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 66.67 | 50.42 | 75.6 | 28 - 110 |
| Acenaphthylene | 66.67 | 44.99 | 67.5 | 23 - 126 |
| Anthracene | 66.67 | 46.55 | 69.8 | 28 - 136 |
| Benzo(a)anthracene | 66.67 | 45.71 | 68.6 | 31 - 146 |
| Benzo(a)pyrene | 66.67 | 47.15 | 70.7 | 28 - 128 |
| Benzo(b)fluoranthene | 66.67 | 49.40 | 74.1 | 30 - 139 |
| Benzo(g,h,i)perylene | 66.67 | 59.59 | 89.4 | 21 - 149 |
| Benzo(k)fluoranthene | 66.67 | 52.44 | 78.7 | 42 - 129 |
| Chrysene | 66.67 | 45.85 | 68.8 | 39 - 134 |
| Dibenz(a,h)anthracene | 66.67 | 57.07 | 85.6 | 30 - 138 |
| Fluoranthene | 66.67 | 50.50 | 75.8 | 30 - 142 |
| Fluorene | 66.67 | 53.76 | 80.6 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 66.67 | 54.40 | 81.6 | 17 - 164 |
| 1-Methylnaphthalene | 66.67 | 50.07 | 75.1 | 30 - 111 |
| 2-Methylnaphthalene | 66.67 | 50.23 | 75.3 | 30 - 111 |
| Naphthalene | 66.67 | 48.89 | 73.3 | 29 - 106 |
| Phenanthrene | 66.67 | 52.16 | 78.2 | 32 - 127 |
| Pyrene | 66.67 | 51.20 | 76.8 | 28 - 130 |

| ANALYTE | SPIKE ADDED (ug/Kg wet) | LCSD CONCENTRATION (ug/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 66.67 | 47.95 | 71.9 | 5.03 | 30 | 28 - 110 |
| Acenaphthylene | 66.67 | 42.16 | 63.2 | 6.48 | 30 | 23 - 126 |
| Anthracene | 66.67 | 45.97 | 69.0 | 1.26 | 30 | 28 - 136 |
| Benzo(a)anthracene | 66.67 | 49.94 | 74.9 | 8.84 | 30 | 31 - 146 |
| Benzo(a)pyrene | 66.67 | 46.33 | 69.5 | 1.76 | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 66.67 | 45.91 | 68.9 | 7.32 | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 66.67 | 63.59 | 95.4 | 6.49 | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 66.67 | 49.36 | 74.0 | 6.06 | 30 | 42 - 129 |
| Chrysene | 66.67 | 51.41 | 77.1 | 11.4 | 30 | 39 - 134 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Solid | | |
| Batch: | 1L12009 | Laboratory ID: | 1L12009-BSD2 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (ug/Kg wet) | LCSD CONCENTRATION (ug/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 66.67 | 60.52 | 90.8 | 5.87 | 30 | 30 - 138 |
| Fluoranthene | 66.67 | 51.68 | 77.5 | 2.31 | 30 | 30 - 142 |
| Fluorene | 66.67 | 49.58 | 74.4 | 8.09 | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 66.67 | 57.99 | 87.0 | 6.38 | 30 | 17 - 164 |
| 1-Methylnaphthalene | 66.67 | 47.98 | 72.0 | 4.26 | 30 | 30 - 111 |
| 2-Methylnaphthalene | 66.67 | 46.78 | 70.2 | 7.09 | 30 | 30 - 111 |
| Naphthalene | 66.67 | 44.55 | 66.8 | 9.28 | 30 | 29 - 106 |
| Phenanthrene | 66.67 | 50.02 | 75.0 | 4.18 | 30 | 32 - 127 |
| Pyrene | 66.67 | 51.01 | 76.5 | 0.368 | 30 | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270D

**05-SS-118-0406**

Laboratory: Empirical Laboratories, LLC

SDG: 1112051

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTOJM26 Saufley 2011

Matrix: Solid

Batch: 1L08004

% Solids: 94.66

Source Sample Name: **1112051-15**

| ANALYTE | SPIKE ADDED (ug/Kg dry) | SAMPLE CONCENTRATION (ug/Kg dry) | MS CONCENTRATION (ug/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 69.50 | ND | 57.79 | 83.1 | | 28 - 110 |
| Acenaphthylene | 69.50 | ND | 51.36 | 73.9 | | 23 - 126 |
| Anthracene | 69.50 | ND | 54.74 | 78.8 | | 28 - 136 |
| Benzo(a)anthracene | 69.50 | 5.786 | 69.89 | 92.2 | | 31 - 146 |
| Benzo(a)pyrene | 69.50 | 6.991 | 59.24 | 75.2 | | 28 - 128 |
| Benzo(b)fluoranthene | 69.50 | 9.492 | 63.89 | 78.3 | | 30 - 139 |
| Benzo(g,h,i)perylene | 69.50 | 5.930 | 60.37 | 78.3 | | 21 - 149 |
| Benzo(k)fluoranthene | 69.50 | 4.246 | 63.34 | 85.0 | | 42 - 129 |
| Chrysene | 69.50 | 6.260 | 71.64 | 94.1 | | 39 - 134 |
| Dibenz(a,h)anthracene | 69.50 | ND | 49.66 | 71.4 | | 30 - 138 |
| Fluoranthene | 69.50 | 8.321 | 67.97 | 85.8 | | 30 - 142 |
| Fluorene | 69.50 | ND | 58.16 | 83.7 | | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 69.50 | 6.216 | 57.11 | 73.2 | | 17 - 164 |
| 1-Methylnaphthalene | 69.50 | ND | 57.86 | 83.3 | | 30 - 111 |
| 2-Methylnaphthalene | 69.50 | ND | 58.98 | 84.9 | | 30 - 111 |
| Naphthalene | 69.50 | ND | 57.33 | 82.5 | | 29 - 106 |
| Phenanthrene | 69.50 | 4.168 | 64.75 | 87.2 | | 32 - 127 |
| Pyrene | 69.50 | 6.658 | 65.51 | 84.7 | | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270D

**05-SS-118-0406**

Laboratory: Empirical Laboratories, LLC

SDG: 1112051

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTOJM26 Saufley 2011

Matrix: Solid

Batch: 1L08004

% Solids: 94.66

Source Sample Name: **1112051-15**

| ANALYTE | SPIKE ADDED (ug/Kg dry) | MSD CONCENTRATION (ug/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 69.50 | 51.69 | 74.4 | 11.1 | | 30 | 28 - 110 |
| Acenaphthylene | 69.50 | 46.45 | 66.8 | 10.0 | | 30 | 23 - 126 |
| Anthracene | 69.50 | 48.84 | 70.3 | 11.4 | | 30 | 28 - 136 |
| Benzo(a)anthracene | 69.50 | 64.55 | 84.6 | 7.94 | | 30 | 31 - 146 |
| Benzo(a)pyrene | 69.50 | 49.87 | 61.7 | 17.2 | | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 69.50 | 56.33 | 67.4 | 12.6 | | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 69.50 | 51.43 | 65.5 | 16.0 | | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 69.50 | 56.63 | 75.4 | 11.2 | | 30 | 42 - 129 |
| Chrysene | 69.50 | 65.28 | 84.9 | 9.28 | | 30 | 39 - 134 |
| Dibenz(a,h)anthracene | 69.50 | 47.41 | 68.2 | 4.63 | | 30 | 30 - 138 |
| Fluoranthene | 69.50 | 56.52 | 69.4 | 18.4 | | 30 | 30 - 142 |
| Fluorene | 69.50 | 53.58 | 77.1 | 8.20 | | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 69.50 | 48.56 | 60.9 | 16.2 | | 30 | 17 - 164 |
| 1-Methylnaphthalene | 69.50 | 52.15 | 75.0 | 10.4 | | 30 | 30 - 111 |
| 2-Methylnaphthalene | 69.50 | 52.68 | 75.8 | 11.3 | | 30 | 30 - 111 |
| Naphthalene | 69.50 | 52.29 | 75.2 | 9.19 | | 30 | 29 - 106 |
| Phenanthrene | 69.50 | 54.84 | 72.9 | 16.6 | | 30 | 32 - 127 |
| Pyrene | 69.50 | 57.43 | 73.0 | 13.2 | | 30 | 28 - 130 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1L36102 | Instrument: | MS-BNA4 |
| | | Calibration: | 1238006 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1L36102-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 12/21/11 13:36 | | |
| 2-Fluorobiphenyl | 5.000 | 104 | 80 - 120 | 7.286 | 7.286 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 110 | 80 - 120 | 11.971 | 11.971 | 0.0000 | +/-0.500 | |
| **LCS (1L08002-BS2 ) ug/L** | | | | Lab File ID: L08002L1.D | | Analyzed: 12/21/11 14:04 | | |
| 2-Fluorobiphenyl | 50.00 | 77.1 | 34 - 167 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 99.6 | 34 - 167 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **LCS Dup (1L08002-BSD2 ) ug/L** | | | | Lab File ID: L08002L2.D | | Analyzed: 12/21/11 14:32 | | |
| 2-Fluorobiphenyl | 50.00 | 67.9 | 34 - 167 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 93.5 | 34 - 167 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **Blank (1L08002-BLK2 ) ug/L** | | | | Lab File ID: L08002B1.D | | Analyzed: 12/21/11 15:00 | | |
| 2-Fluorobiphenyl | 50.00 | 65.9 | 34 - 167 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 94.5 | 34 - 167 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **FB12061101 (1112051-11 ) ug/L** | | | | Lab File ID: 1205111.D | | Analyzed: 12/21/11 15:27 | | |
| 2-Fluorobiphenyl | 46.73 | 78.0 | 34 - 167 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 46.73 | 101 | 34 - 167 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **LCS (1L08004-BS1 ) ug/Kg wet** | | | | Lab File ID: L08004L1.D | | Analyzed: 12/21/11 15:55 | | |
| 2-Fluorobiphenyl | 3333 | 79.7 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 101 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **Blank (1L08004-BLK1 ) ug/Kg wet** | | | | Lab File ID: L08004B1.D | | Analyzed: 12/21/11 16:23 | | |
| 2-Fluorobiphenyl | 3333 | 77.1 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 94.6 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **05-SS-112-0406 (1112051-02 ) ug/Kg dry** | | | | Lab File ID: 1205102.D | | Analyzed: 12/21/11 16:51 | | |
| 2-Fluorobiphenyl | 4029 | 74.7 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 4029 | 95.0 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **05-SS-113-0002 (1112051-03 ) ug/Kg dry** | | | | Lab File ID: 1205103.D | | Analyzed: 12/21/11 17:18 | | |
| 2-Fluorobiphenyl | 3504 | 76.1 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3504 | 95.9 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **05-SS-113-0406 (1112051-04 ) ug/Kg dry** | | | | Lab File ID: 1205104.D | | Analyzed: 12/21/11 17:46 | | |
| 2-Fluorobiphenyl | 4059 | 21.4 | 14 - 129 | 7.286 | 7.286 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 4059 | 49.3 | 14 - 129 | 11.971 | 11.971 | 0.0000 | +/-0.500 | |
| **05-SS-114-0406 (1112051-06 ) ug/Kg dry** | | | | Lab File ID: 1205106.D | | Analyzed: 12/21/11 18:13 | | |
| 2-Fluorobiphenyl | 3476 | 70.0 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3476 | 91.4 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1L36102 | Instrument: | MS-BNA4 |
| | | Calibration: | 1238006 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-115-0406 (1112051-09 ) ug/Kg dry** | | | | Lab File ID: 1205109.D | | Analyzed: 12/21/11 18:41 | | |
| 2-Fluorobiphenyl | 3472 | 68.8 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3472 | 88.2 | 14 - 129 | 11.972 | 11.971 | 0.0010 | +/-0.500 | |
| **05-SS-116-0002 (1112051-10 ) ug/Kg dry** | | | | Lab File ID: 1205110.D | | Analyzed: 12/21/11 19:08 | | |
| 2-Fluorobiphenyl | 3492 | 83.2 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3492 | 99.6 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **05-SS-118-0406 (1112051-15 ) ug/Kg dry** | | | | Lab File ID: 1205115.D | | Analyzed: 12/21/11 19:35 | | |
| 2-Fluorobiphenyl | 3386 | 84.8 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3386 | 101 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **Matrix Spike (1L08004-MS1 ) ug/Kg dry** | | | | Lab File ID: 1205115M.D | | Analyzed: 12/21/11 20:03 | | |
| 2-Fluorobiphenyl | 3475 | 82.0 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3475 | 96.5 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **Matrix Spike Dup (1L08004-MSD1 ) ug/Kg dry** | | | | Lab File ID: 1205115S.D | | Analyzed: 12/21/11 20:30 | | |
| 2-Fluorobiphenyl | 3475 | 76.1 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3475 | 87.1 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **FD12061102 (1112051-16 ) ug/Kg dry** | | | | Lab File ID: 1205116.D | | Analyzed: 12/21/11 20:57 | | |
| 2-Fluorobiphenyl | 3348 | 79.3 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3348 | 98.0 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **05-SS-119-0406 (1112051-17 ) ug/Kg dry** | | | | Lab File ID: 1205117.D | | Analyzed: 12/21/11 21:24 | | |
| 2-Fluorobiphenyl | 3730 | 79.3 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3730 | 95.1 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **05-SS-120-0406 (1112051-18 ) ug/Kg dry** | | | | Lab File ID: 1205118.D | | Analyzed: 12/21/11 21:52 | | |
| 2-Fluorobiphenyl | 3976 | 80.4 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3976 | 104 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **05-SS-121-0406 (1112051-19 ) ug/Kg dry** | | | | Lab File ID: 1205119.D | | Analyzed: 12/21/11 22:19 | | |
| 2-Fluorobiphenyl | 3453 | 75.6 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3453 | 94.0 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |
| **05-SS-115-0002 (1112051-07 ) ug/Kg dry** | | | | Lab File ID: 1205107.D | | Analyzed: 12/21/11 22:47 | | |
| 2-Fluorobiphenyl | 3365 | 54.0 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3365 | 70.3 | 14 - 129 | 11.971 | 11.971 | 0.0000 | +/-0.500 | |
| **FD12061101 (1112051-08 ) ug/Kg dry** | | | | Lab File ID: 1205108.D | | Analyzed: 12/21/11 23:14 | | |
| 2-Fluorobiphenyl | 3512 | 65.9 | 14 - 129 | 7.295 | 7.286 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3512 | 87.3 | 14 - 129 | 11.981 | 11.971 | 0.0100 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1L36102 | Instrument: | MS-BNA4 |
| | | Calibration: | 1238006 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SS-112-0002 (1112051-01 ) ug/Kg dry** | | | | Lab File ID: 1205101D.D | | Analyzed: 12/21/11 23:42 | | |
| 2-Fluorobiphenyl | 3465 | 74.0 | 14 - 129 | 7.286 | 7.286 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3465 | 89.0 | 14 - 129 | 11.971 | 11.971 | 0.0000 | +/-0.500 | |
| **05-SS-114-0002 (1112051-05 ) ug/Kg dry** | | | | Lab File ID: 1205105D.D | | Analyzed: 12/22/11 00:10 | | |
| 2-Fluorobiphenyl | 3473 | 69.1 | 14 - 129 | 7.286 | 7.286 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3473 | 87.7 | 14 - 129 | 11.971 | 11.971 | 0.0000 | +/-0.500 | |
| **05-SS-117-0002 (1112051-13 ) ug/Kg dry** | | | | Lab File ID: 1205113D.D | | Analyzed: 12/22/11 00:38 | | |
| 2-Fluorobiphenyl | 3423 | 75.4 | 14 - 129 | 7.286 | 7.286 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3423 | 101 | 14 - 129 | 11.972 | 11.971 | 0.0010 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1L36307 | Instrument: | MS-BNA4 |
| | | Calibration: | 1238006 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1L36307-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 12/28/11 13:54 | | |
| 2-Fluorobiphenyl | 5.000 | 96.9 | 80 - 120 | 7.249 | 7.249 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 107 | 80 - 120 | 11.916 | 11.916 | 0.0000 | +/-0.500 | |
| **LCS (1L12009-BS2 ) ug/Kg wet** | | | | Lab File ID: L12009L1.D | | Analyzed: 12/28/11 14:22 | | |
| 2-Fluorobiphenyl | 3333 | 73.6 | 14 - 129 | 7.249 | 7.249 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 85.1 | 14 - 129 | 11.925 | 11.916 | 0.0090 | +/-0.500 | |
| **LCS Dup (1L12009-BSD2 ) ug/Kg wet** | | | | Lab File ID: L12009L2.D | | Analyzed: 12/28/11 14:49 | | |
| 2-Fluorobiphenyl | 3333 | 68.2 | 14 - 129 | 7.249 | 7.249 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 85.7 | 14 - 129 | 11.925 | 11.916 | 0.0090 | +/-0.500 | |
| **Blank (1L12009-BLK2 ) ug/Kg wet** | | | | Lab File ID: L12009B1.D | | Analyzed: 12/28/11 15:17 | | |
| 2-Fluorobiphenyl | 3333 | 75.2 | 14 - 129 | 7.258 | 7.249 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 96.9 | 14 - 129 | 11.925 | 11.916 | 0.0090 | +/-0.500 | |
| **05-SS-117-0406 (1112051-14 ) ug/Kg dry** | | | | Lab File ID: 1205114.D | | Analyzed: 12/28/11 21:11 | | |
| 2-Fluorobiphenyl | 3404 | 64.0 | 14 - 129 | 7.258 | 7.249 | 0.0090 | +/-0.500 | |
| Terphenyl-d14 | 3404 | 86.7 | 14 - 129 | 11.934 | 11.916 | 0.0180 | +/-0.500 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 1L36102

SDG: 1112051
Project: NAS Pensacola CTOJM26 Saufley 2011
Instrument: MS-BNA4
Calibration: 1238006

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1L36102-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 12/21/11 13:36 | | | |
| Phenanthrene-d10 | 98910 | 9.898 | 105583 | 10.012 | 94 | 50 - 200 | -0.1140 | +/-0.50 | |
| Perylene-d12 | 48320 | 16.285 | 58058 | 16.483 | 83 | 50 - 200 | -0.1980 | +/-0.50 | |
| **LCS (1L08002-BS2 )** | | | Lab File ID: L08002L1.D | | | Analyzed: 12/21/11 14:04 | | | |
| Phenanthrene-d10 | 96538 | 9.898 | 98910 | 9.898 | 98 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 41844 | 16.285 | 48320 | 16.285 | 87 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS Dup (1L08002-BSD2 )** | | | Lab File ID: L08002L2.D | | | Analyzed: 12/21/11 14:32 | | | |
| Phenanthrene-d10 | 97750 | 9.898 | 98910 | 9.898 | 99 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 49311 | 16.285 | 48320 | 16.285 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1L08002-BLK2 )** | | | Lab File ID: L08002B1.D | | | Analyzed: 12/21/11 15:00 | | | |
| Phenanthrene-d10 | 119872 | 9.898 | 98910 | 9.898 | 121 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 64203 | 16.285 | 48320 | 16.285 | 133 | 50 - 200 | 0.0000 | +/-0.50 | |
| **FB12061101 (1112051-11 )** | | | Lab File ID: 1205111.D | | | Analyzed: 12/21/11 15:27 | | | |
| Phenanthrene-d10 | 101328 | 9.898 | 98910 | 9.898 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 35844 | 16.285 | 48320 | 16.285 | 74 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS (1L08004-BS1 )** | | | Lab File ID: L08004L1.D | | | Analyzed: 12/21/11 15:55 | | | |
| Phenanthrene-d10 | 100651 | 9.898 | 98910 | 9.898 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 50574 | 16.285 | 48320 | 16.285 | 105 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1L08004-BLK1 )** | | | Lab File ID: L08004B1.D | | | Analyzed: 12/21/11 16:23 | | | |
| Phenanthrene-d10 | 105346 | 9.898 | 98910 | 9.898 | 107 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 45463 | 16.285 | 48320 | 16.285 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-112-0406 (1112051-02 )** | | | Lab File ID: 1205102.D | | | Analyzed: 12/21/11 16:51 | | | |
| Phenanthrene-d10 | 99308 | 9.898 | 98910 | 9.898 | 100 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 46323 | 16.285 | 48320 | 16.285 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-113-0002 (1112051-03 )** | | | Lab File ID: 1205103.D | | | Analyzed: 12/21/11 17:18 | | | |
| Phenanthrene-d10 | 102564 | 9.898 | 98910 | 9.898 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 49918 | 16.285 | 48320 | 16.285 | 103 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-113-0406 (1112051-04 )** | | | Lab File ID: 1205104.D | | | Analyzed: 12/21/11 17:46 | | | |
| Phenanthrene-d10 | 100176 | 9.898 | 98910 | 9.898 | 101 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 44675 | 16.285 | 48320 | 16.285 | 92 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-114-0406 (1112051-06 )** | | | Lab File ID: 1205106.D | | | Analyzed: 12/21/11 18:13 | | | |
| Phenanthrene-d10 | 101853 | 9.898 | 98910 | 9.898 | 103 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 46251 | 16.285 | 48320 | 16.285 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-115-0406 (1112051-09 )** | | | Lab File ID: 1205109.D | | | Analyzed: 12/21/11 18:41 | | | |
| Phenanthrene-d10 | 102288 | 9.898 | 98910 | 9.898 | 103 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 50227 | 16.285 | 48320 | 16.285 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

Laboratory: Empirical Laboratories, LLC
SDG: 1112051
Client: Tetra Tech NUS, Inc. (T010)
Project: NAS Pensacola CTOJM26 Saufley 2011
Sequence: 1L36102
Instrument: MS-BNA4
Calibration: 1238006

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-116-0002 (1112051-10 )** | | | Lab File ID: 1205110.D | | | Analyzed: 12/21/11 19:08 | | | |
| Phenanthrene-d10 | 100142 | 9.898 | 98910 | 9.898 | 101 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 50020 | 16.285 | 48320 | 16.285 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-118-0406 (1112051-15 )** | | | Lab File ID: 1205115.D | | | Analyzed: 12/21/11 19:35 | | | |
| Phenanthrene-d10 | 100072 | 9.898 | 98910 | 9.898 | 101 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 49214 | 16.285 | 48320 | 16.285 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike (1L08004-MS1 )** | | | Lab File ID: 1205115M.D | | | Analyzed: 12/21/11 20:03 | | | |
| Phenanthrene-d10 | 100946 | 9.898 | 98910 | 9.898 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 51824 | 16.285 | 48320 | 16.285 | 107 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike Dup (1L08004-MSD1 )** | | | Lab File ID: 1205115S.D | | | Analyzed: 12/21/11 20:30 | | | |
| Phenanthrene-d10 | 100479 | 9.898 | 98910 | 9.898 | 102 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 53400 | 16.285 | 48320 | 16.285 | 111 | 50 - 200 | 0.0000 | +/-0.50 | |
| **FD12061102 (1112051-16 )** | | | Lab File ID: 1205116.D | | | Analyzed: 12/21/11 20:57 | | | |
| Phenanthrene-d10 | 99796 | 9.898 | 98910 | 9.898 | 101 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 45753 | 16.285 | 48320 | 16.285 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-119-0406 (1112051-17 )** | | | Lab File ID: 1205117.D | | | Analyzed: 12/21/11 21:24 | | | |
| Phenanthrene-d10 | 94852 | 9.898 | 98910 | 9.898 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 48636 | 16.285 | 48320 | 16.285 | 101 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-120-0406 (1112051-18 )** | | | Lab File ID: 1205118.D | | | Analyzed: 12/21/11 21:52 | | | |
| Phenanthrene-d10 | 106238 | 9.898 | 98910 | 9.898 | 107 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 52111 | 16.285 | 48320 | 16.285 | 108 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-121-0406 (1112051-19 )** | | | Lab File ID: 1205119.D | | | Analyzed: 12/21/11 22:19 | | | |
| Phenanthrene-d10 | 97867 | 9.898 | 98910 | 9.898 | 99 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 45871 | 16.285 | 48320 | 16.285 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-115-0002 (1112051-07 )** | | | Lab File ID: 1205107.D | | | Analyzed: 12/21/11 22:47 | | | |
| Phenanthrene-d10 | 101802 | 9.907 | 98910 | 9.898 | 103 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 45854 | 16.285 | 48320 | 16.285 | 95 | 50 - 200 | 0.0000 | +/-0.50 | |
| **FD12061101 (1112051-08 )** | | | Lab File ID: 1205108.D | | | Analyzed: 12/21/11 23:14 | | | |
| Phenanthrene-d10 | 99936 | 9.898 | 98910 | 9.898 | 101 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 46690 | 16.285 | 48320 | 16.285 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SS-112-0002 (1112051-01 )** | | | Lab File ID: 1205101D.D | | | Analyzed: 12/21/11 23:42 | | | |
| Phenanthrene-d10 | 95893 | 9.907 | 98910 | 9.898 | 97 | 50 - 200 | 0.0090 | +/-0.50 | |
| Perylene-d12 | 39471 | 16.294 | 48320 | 16.285 | 82 | 50 - 200 | 0.0090 | +/-0.50 | |
| **05-SS-114-0002 (1112051-05 )** | | | Lab File ID: 1205105D.D | | | Analyzed: 12/22/11 00:10 | | | |
| Phenanthrene-d10 | 98711 | 9.908 | 98910 | 9.898 | 100 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 45346 | 16.294 | 48320 | 16.285 | 94 | 50 - 200 | 0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1L36102 | Instrument: | MS-BNA4 |
| | | Calibration: | 1238006 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **05-SS-117-0002 (1112051-13 )** | | | Lab File ID: 1205113D.D | | | Analyzed: 12/22/11 00:38 | | | |
| Phenanthrene-d10 | 106248 | 9.908 | 98910 | 9.898 | 107 | 50 - 200 | 0.0100 | +/-0.50 | |
| Perylene-d12 | 54035 | 16.285 | 48320 | 16.285 | 112 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1112051 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 1L36307 | Instrument: | MS-BNA4 |
| | | Calibration: | 1238006 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (1L36307-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 12/28/11 13:54 | | | |
| Phenanthrene-d10 | 100847 | 9.861 | 105583 | 10.012 | 96 | 50 - 200 | -0.1510 | +/-0.50 | |
| Perylene-d12 | 49551 | 16.21 | 58058 | 16.483 | 85 | 50 - 200 | -0.2730 | +/-0.50 | |
| **LCS (1L12009-BS2 )** | | | Lab File ID: L12009L1.D | | | Analyzed: 12/28/11 14:22 | | | |
| Phenanthrene-d10 | 92821 | 9.861 | 100847 | 9.861 | 92 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 36294 | 16.21 | 49551 | 16.21 | 73 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS Dup (1L12009-BSD2 )** | | | Lab File ID: L12009L2.D | | | Analyzed: 12/28/11 14:49 | | | |
| Phenanthrene-d10 | 88894 | 9.861 | 100847 | 9.861 | 88 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 42675 | 16.21 | 49551 | 16.21 | 86 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (1L12009-BLK2 )** | | | Lab File ID: L12009B1.D | | | Analyzed: 12/28/11 15:17 | | | |
| Phenanthrene-d10 | 94488 | 9.861 | 100847 | 9.861 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 40742 | 16.21I | 49551 | 16.21 | 82 | 50 - 200 | 0.0010 | +/-0.50 | |
| **05-SS-117-0406 (1112051-14 )** | | | Lab File ID: 1205114.D | | | Analyzed: 12/28/11 21:11 | | | |
| Phenanthrene-d10 | 100969 | 9.861 | 100847 | 9.861 | 100 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 55899 | 16.22 | 49551 | 16.21 | 113 | 50 - 200 | 0.0100 | +/-0.50 | |

## 15.2 MATRIX: SOIL

### 15.2.1 Analytical Group: PAHs

| Analyte | CAS Number | Project Action Limit [1] (mg/kg) | Project Action Limit Reference | Project Quantitation Limit Goal (mg/kg) | Empirical | | |
|---|---|---|---|---|---|---|---|
| | | | | | LOQ (mg/kg) | LOD (mg/kg) | MDL (mg/kg) |
| 1-METHYLNAPHTHALENE | 90-12-0 | 3.1 | Leach to GW - SCTL | 1.0 | 0.007 | 0.0033 | 0.0017 |
| 2-METHYLNAPHTHALENE | 91-57-6 | 8.5 | Leach to GW - SCTL | 2.8 | 0.007 | 0.0033 | 0.0017 |
| ACENAPHTHENE | 83-32-9 | 2.1 | Leach to GW - SCTL | 0.70 | 0.007 | 0.0033 | 0.0017 |
| ACENAPHTHYLENE | 208-96-8 | 27 | Leach to GW - SCTL | 9.0 | 0.007 | 0.0033 | 0.0017 |
| ANTHRACENE | 120-12-7 | 2,500 | Leach to GW - SCTL | 830 | 0.007 | 0.0033 | 0.0017 |
| BENZO(A)ANTHRACENE | 56-55-3 | 0.8 | Leach to GW - SCTL | 0.27 | 0.007 | 0.0033 | 0.0017 |
| BENZO(A)PYRENE | 50-32-8 | 0.1 | Residential - SCTL | 0.033 | 0.007 | 0.0033 | 0.0017 |
| BENZO(B)FLUORANTHENE | 205-99-2 | 2.4 | Leach to GW - SCTL | 0.80 | 0.007 | 0.0033 | 0.0017 |
| BENZO(G,H,I)PERYLENE | 191-24-2 | 2,500 | Residential - SCTL | 830 | 0.007 | 0.0033 | 0.0017 |
| BENZO(K)FLUORANTHENE | 207-08-9 | 24 | Leach to GW - SCTL | 8.0 | 0.007 | 0.0033 | 0.0017 |
| CHRYSENE | 218-01-9 | 77 | Leach to GW - SCTL | 26 | 0.007 | 0.0033 | 0.0017 |
| DIBENZO(A,H)ANTHRACENE | 53-70-3 | 0.1 | Residential - SCTL | 0.23 | 0.007 | 0.0033 | 0.0017 |
| FLUORANTHENE | 206-44-0 | 1,200 | Leach to GW - SCTL | 400 | 0.007 | 0.0033 | 0.0017 |
| FLUORENE | 86-73-7 | 160 | Leach to GW - SCTL | 53 | 0.007 | 0.0033 | 0.0017 |
| INDENO(1,2,3-CD)PYRENE | 193-39-5 | 6.6 | Leach to GW - SCTL | 2.2 | 0.007 | 0.0033 | 0.0017 |
| NAPHTHALENE | 91-20-3 | 1.2 | Leach to GW - SCTL | 0.40 | 0.007 | 0.0033 | 0.0017 |
| PHENANTHRENE | 85-01-8 | 250 | Leach to GW - SCTL | 83 | 0.007 | 0.0033 | 0.0017 |
| PYRENE | 129-00-0 | 880 | Leach to GW - SCTL | 290 | 0.007 | 0.0033 | 0.0017 |

# SAUFLEY FIELD
# SOIL DATA
# 1112051

| FRACTION | CHEMICAL | FD12061101 | UNITS | 05-SS-115-0002 | RPD | D |
|---|---|---|---|---|---|---|
| PAH | 1-METHYLNAPHTHALENE | 2.1 J | UG/KG | 2.36 J | 11.66 | 0.26 |
| PAH | 2-METHYLNAPHTHALENE | 1.77 J | UG/KG | 3.06 J | 53.42 | 1.29 N/A<2X R.L. |
| PAH | ACENAPHTHENE | 12.1 | UG/KG | 10.8 | 11.35 | 1.30 |
| PAH | ACENAPHTHYLENE | 25.9 | UG/KG | 31.7 | 20.14 | 5.80 |
| PAH | ANTHRACENE | 22.4 | UG/KG | 18.9 | 16.95 | 3.50 |
| PAH | BENZO(A)ANTHRACENE | 144 | UG/KG | 114 | 23.26 | 30.00 |
| PAH | BENZO(A)PYRENE | 152 | UG/KG | 122 | 21.90 | 30.00 |
| PAH | BENZO(B)FLUORANTHENE | 251 | UG/KG | 185 | 30.28 | 66.00 |
| PAH | BENZO(G,H,I)PERYLENE | 164 | UG/KG | 138 | 17.22 | 26.00 |
| PAH | BENZO(K)FLUORANTHENE | 81.8 | UG/KG | 78.9 | 3.61 | 2.90 |
| PAH | CHRYSENE | 166 | UG/KG | 130 | 24.32 | 36.00 |
| PAH | DIBENZO(A,H)ANTHRACENE | 33.8 | UG/KG | 26.1 | 25.71 | 7.70 |
| PAH | FLUORANTHENE | 265 | UG/KG | 218 | 19.46 | 47.00 |
| PAH | FLUORENE | 9.73 | UG/KG | 8.59 | 12.45 | 1.14 |
| PAH | INDENO(1,2,3-CD)PYRENE | 153 | UG/KG | 118 | 25.83 | 35.00 |
| PAH | NAPHTHALENE | 4.71 J | UG/KG | 6.21 J | 27.47 | 1.50 |
| PAH | PHENANTHRENE | 124 | UG/KG | 101 | 20.44 | 23.00 |
| PAH | PYRENE | 214 | UG/KG | 172 | 21.76 | 42.00 |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

# SAUFLEY FIELD
# SOIL DATA
# 1112051

| FRACTION | CHEMICAL | FD12061102 | UNITS | 05-SS-118-0406 | RPD | D |
|---|---|---|---|---|---|---|
| PAH | BENZO(A)ANTHRACENE | 7.47 | UG/KG | 5.79 J | 25.34 | 1.68 |
| PAH | BENZO(A)PYRENE | 6.88 | UG/KG | 6.99 | 1.59 | 0.11 |
| PAH | BENZO(B)FLUORANTHENE | 10.4 | UG/KG | 9.49 | 9.15 | 0.91 |
| PAH | BENZO(G,H,I)PERYLENE | 5.95 J | UG/KG | 5.93 J | 0.34 | 0.02 |
| PAH | BENZO(K)FLUORANTHENE | 4.49 J | UG/KG | 4.25 J | 5.49 | 0.24 |
| PAH | CHRYSENE | 7.71 | UG/KG | 6.26 J | 20.76 | 1.45 |
| PAH | FLUORANTHENE | 11.7 | UG/KG | 8.32 | 33.77 | 3.38 |
| PAH | INDENO(1,2,3-CD)PYRENE | 5.87 J | UG/KG | 6.22 J | 5.79 | 0.35 |
| PAH | PHENANTHRENE | 5.44 J | UG/KG | 4.17 J | 26.43 | 1.27 |
| PAH | PYRENE | 9.96 | UG/KG | 6.66 J | 39.71 | 3.30 |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

**Tetra Tech INC** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 24, 2012** |
| **FROM:** | **JOSEPH KALINYAK** | **COPIES:** | **DV FILE** |

**SUBJECT:** **ORGANIC DATA VALIDATION - PAH / TPH**
**SAUFLEY FIELD, CTO JM26**
**SDG 1203203**

**SAMPLES:** 1 / Aqueous / PAH / TPH

FB-03-27-1201

18 / Soil / PAH / TPH

| | | |
|---|---|---|
| 05-SO-122-4-6 | 05-SO-123-4-6 | 05-SO-124-4-6 |
| 05-SO-125-4-6 | 05-SO-126-0-2 | 05-SO-126-4-6 |
| 05-SO-127-0-2 | 05-SO-127-4-6 | 05-SO-128-0-2 |
| 05-SO-128-4-6 | 05-SO-129-0-2 | 05-SO-129-4-6 |
| 05-SO-130-0-2 | 05-SO-130-4-6 | 05-SO-131-0-2 |
| 05-SO-131-4-6 | FD-03-27-1201 | FD-03-27-1202 |

## OVERVIEW

The sample set for Saufley Field, CTO JM26, SDG 1203203 consisted of eighteen (18) soil samples and one (1) aqueous field blank sample. All samples were analyzed for polynuclear aromatic hydrocarbons (PAH) and total petroleum hydrocarbons as listed above. Two (2) field duplicate sample pairs were included in this sample delivery group (SDG); FD-03-27-1201 / 05-SO-130-4-6 and FD-03-27-1202 / 05-SO-130-0-2.

The samples were collected by TetraTech on March 27, 2012 and analyzed by Empirical Laboratories LLC. All analyses were conducted using USEPA SW-846 Method 8270D for PAHs and Florida Pro for TPH, analytical and reporting protocols.

The data contained in this SDG were fully validated with regard to the following parameters:

- * Data Completeness
- * Holding Times
- * GC/MS Tuning
- Initial and Continuing Calibration
- * Laboratory Blank Analyses
- * Surrogate Recoveries
- Blank Spike/Blank Spike Duplicate Results
- Matrix Spike/Matrix Spike Duplicate Results
- * Internal Standard Recoveries
- Field Duplicate Precision
- * Compound Quantitation
- * Compound Identification
- * Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

## PAH

The continuing calibration verification (CCV) percent difference (%D) was greater than the 20% quality control limit for benzo(a)anthracene for instrument MS-BNA4 on 04/05/12 @ 23:34.

**Affected samples:**
05-SO-122-4-6 05-SO-123-4-6 05-SO-124-4-6
05-SO-125-4-6

**Action:** The positive and non-detected benzo(a)anthracene results for the samples were qualified estimated, (J) and (UJ), respectively.

The laboratory control sample (LCS) and LCS duplicate (LCSD) percent recovery (%R) relative percent differences (RPDs) were quality control limit non-compliant for the analytes acenaphthylene and fluorene for batch 2D02012 for instrument MS-BNA4.

**Affected sample:** FB-03-27-1201

**Action:** The LCS and LCSD %Rs for acenaphthylene and fluorene were acceptable, and no validation action was necessary for RPD non-compliances alone.

The matrix spike (MS) and MS duplicate (MSD) %R RPD was quality control limit non-compliant for chrysene for spiked sample 05-SO-126-0-2.

**Action:** The MS and MSD %Rs for acenaphthylene and fluorene were acceptable, and no validation action was necessary for RPD non-compliances alone.

The PAH field duplicate sample RPDs were greater than the 50% quality control limit for the analytes anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-CD)pyrene, and pyrene for the filed duplicate samples FD-03-27-1202 and 05-SO-130-0-2.

**Action:** The sample aforementioned positive analytes were qualified estimated, (J), for the field duplicate samples FD-03-27-1202 and 05-SO-130-0-2.

## TPH

The sample 05-SO-122-4-6 had a surrogate recovery retention time greater than the quality control limit for o-terphenyl. The %Rs of the surrogates o-terphenyl and 2-fluorobiphenyl were acceptable.

**Action:** No validation action was taken for surrogate retention time non-compliances alone.

## ADDITIONAL COMMENTS

Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit.

Sample results were reported to the method detection limits (MDL).

## EXECUTIVE SUMMARY

**Laboratory Performance Issues:** Sample benzo(a)anthracene results were qualified for CCV %D non-compliances.

**Other factors affecting data quality:** Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL). Field duplicate imprecision was noted for PAHs in sample pair samples FD-03-27-1202 and 05-SO-130-0-2.

The data for these analyses were reviewed with reference to the USEPA SW-846 Method 8270D, Florida Pro, EPA Functional Guidelines for Organic Data Validation (October 1999), the site Sample Analysis Plan (SAP), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

TetraTech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

## Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

## DATA QUALIFICATION CODE (QUAL CODE)

**Qualifier Codes:**

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is less than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | FB-03-27-1201 | | |
| **SDG: 1203203** | LAB_ID | 1203203-19 | | |
| **FRACTION: PAH** | SAMP_DATE | 3/27/2012 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | UG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 0.0481 | U | |
| 2-METHYLNAPHTHALENE | | 0.0481 | U | |
| ACENAPHTHENE | | 0.0481 | U | |
| ACENAPHTHYLENE | | 0.0481 | U | |
| ANTHRACENE | | 0.0481 | U | |
| BENZO(A)ANTHRACENE | | 0.0481 | U | |
| BENZO(A)PYRENE | | 0.0481 | U | |
| BENZO(B)FLUORANTHENE | | 0.0481 | U | |
| BENZO(G,H,I)PERYLENE | | 0.0481 | U | |
| BENZO(K)FLUORANTHENE | | 0.0481 | U | |
| CHRYSENE | | 0.0481 | U | |
| DIBENZO(A,H)ANTHRACENE | | 0.0481 | U | |
| FLUORANTHENE | | 0.0481 | U | |
| FLUORENE | | 0.0481 | U | |
| INDENO(1,2,3-CD)PYRENE | | 0.0481 | U | |
| NAPHTHALENE | | 0.0481 | U | |
| PHENANTHRENE | | 0.0962 | U | |
| PYRENE | | 0.0481 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-122-4-6 | | | 05-SO-123-4-6 | | | 05-SO-124-4-6 | | | 05-SO-125-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-01 | | | 1203203-02 | | | 1203203-03 | | | 1203203-04 | | |
| FRACTION: PAH | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 90.8 | | | 93.3 | | | 89.8 | | | 93.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 1.83 | U | | 1.77 | U | | 5.98 | J | P | 1.77 | U | |
| 2-METHYLNAPHTHALENE | | 1.83 | U | | 1.77 | U | | 14.7 | | | 1.77 | U | |
| ACENAPHTHENE | | 1.83 | U | | 1.77 | U | | 1.82 | U | | 1.77 | U | |
| ACENAPHTHYLENE | | 1.83 | U | | 1.77 | U | | 1.82 | U | | 1.77 | U | |
| ANTHRACENE | | 1.83 | U | | 1.77 | U | | 1.82 | U | | 1.77 | U | |
| BENZO(A)ANTHRACENE | | 8.21 | J | C | 6.22 | J | CP | 14.6 | J | C | 1.77 | UJ | C |
| BENZO(A)PYRENE | | 1.83 | U | | 9.44 | | | 14.8 | | | 1.77 | U | |
| BENZO(B)FLUORANTHENE | | 14 | | | 10.4 | | | 21.6 | | | 1.77 | U | |
| BENZO(G,H,I)PERYLENE | | 1.83 | U | | 10.2 | | | 1.82 | U | | 1.77 | U | |
| BENZO(K)FLUORANTHENE | | 11.9 | | | 9.87 | | | 19 | | | 1.77 | U | |
| CHRYSENE | | 12.9 | | | 6.62 | J | P | 17.5 | | | 1.77 | U | |
| DIBENZO(A,H)ANTHRACENE | | 1.83 | U | | 1.77 | U | | 1.82 | U | | 1.77 | U | |
| FLUORANTHENE | | 16.1 | | | 8.69 | | | 31.1 | | | 1.77 | U | |
| FLUORENE | | 1.83 | U | | 1.77 | U | | 1.82 | U | | 1.77 | U | |
| INDENO(1,2,3-CD)PYRENE | | 6.76 | J | P | 6.66 | J | P | 11.1 | | | 1.77 | U | |
| NAPHTHALENE | | 1.83 | U | | 1.77 | U | | 11.6 | | | 1.77 | U | |
| PHENANTHRENE | | 4.45 | J | P | 1.77 | U | | 14.2 | | | 1.77 | U | |
| PYRENE | | 16.3 | | | 8.24 | | | 30 | | | 1.77 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-126-0-2 | | | 05-SO-126-4-6 | | | 05-SO-127-0-2 | | | 05-SO-127-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-05 | | | 1203203-06 | | | 1203203-07 | | | 1203203-08 | | |
| FRACTION: PAH | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 94.2 | | | 90.9 | | | 92.5 | | | 91.4 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 1.72 | U | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| 2-METHYLNAPHTHALENE | | 1.72 | U | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| ACENAPHTHENE | | 1.72 | U | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| ACENAPHTHYLENE | | 1.72 | U | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| ANTHRACENE | | 1.72 | U | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| BENZO(A)ANTHRACENE | | 5.82 | J | P | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| BENZO(A)PYRENE | | 12.9 | | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| BENZO(B)FLUORANTHENE | | 15 | | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| BENZO(G,H,I)PERYLENE | | 18.2 | | | 1.82 | U | | 3.98 | J | P | 1.83 | U | |
| BENZO(K)FLUORANTHENE | | 10.2 | | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| CHRYSENE | | 8.54 | | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| DIBENZO(A,H)ANTHRACENE | | 4.91 | J | P | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| FLUORANTHENE | | 6.52 | J | P | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| FLUORENE | | 1.72 | U | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| INDENO(1,2,3-CD)PYRENE | | 13.9 | | | 1.82 | U | | 3.73 | J | P | 1.83 | U | |
| NAPHTHALENE | | 1.72 | U | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| PHENANTHRENE | | 1.72 | U | | 1.82 | U | | 1.78 | U | | 1.83 | U | |
| PYRENE | | 7.74 | | | 1.82 | U | | 1.78 | U | | 1.83 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-128-0-2 | | | 05-SO-128-4-6 | | | 05-SO-129-0-2 | | | 05-SO-129-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-09 | | | 1203203-10 | | | 1203203-11 | | | 1203203-12 | | |
| FRACTION: PAH | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 91.8 | | | 92.1 | | | 93.4 | | | 83.4 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 1.78 | U | | 1.79 | U | | 1.72 | U | | 2 | U | |
| 2-METHYLNAPHTHALENE | | 1.78 | U | | 1.79 | U | | 1.72 | U | | 2 | U | |
| ACENAPHTHENE | | 1.78 | U | | 1.79 | U | | 1.72 | U | | 2 | U | |
| ACENAPHTHYLENE | | 106 | | | 7.79 | | | 15.5 | | | 2 | U | |
| ANTHRACENE | | 28.6 | | | 1.79 | U | | 4.11 | J | P | 2 | U | |
| BENZO(A)ANTHRACENE | | 316 | | | 15.3 | | | 32.1 | | | 4.77 | J | P |
| BENZO(A)PYRENE | | 590 | | | 43.4 | | | 63.1 | | | 6.44 | J | P |
| BENZO(B)FLUORANTHENE | | 592 | | | 50 | | | 68.6 | | | 2 | U | |
| BENZO(G,H,I)PERYLENE | | 542 | | | 43.8 | | | 82.2 | | | 7.12 | J | P |
| BENZO(K)FLUORANTHENE | | 475 | | | 32.6 | | | 47.2 | | | 2 | U | |
| CHRYSENE | | 338 | | | 22.6 | | | 39.9 | | | 5.24 | J | P |
| DIBENZO(A,H)ANTHRACENE | | 158 | | | 11.2 | | | 19.1 | | | 2 | U | |
| FLUORANTHENE | | 363 | | | 20.2 | | | 44.4 | | | 7.91 | J | P |
| FLUORENE | | 1.78 | U | | 1.79 | U | | 1.72 | U | | 2 | U | |
| INDENO(1,2,3-CD)PYRENE | | 477 | | | 36.9 | | | 57.3 | | | 5.32 | J | P |
| NAPHTHALENE | | 6.12 | J | P | 1.79 | U | | 1.72 | U | | 2 | U | |
| PHENANTHRENE | | 45.6 | | | 4.68 | J | P | 7.18 | | | 2 | U | |
| PYRENE | | 420 | | | 24.1 | | | 44.1 | | | 7.56 | J | P |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-130-0-2 | | | 05-SO-130-4-6 | | | 05-SO-131-0-2 | | | 05-SO-131-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-13 | | | 1203203-14 | | | 1203203-15 | | | 1203203-16 | | |
| FRACTION: PAH | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 94.1 | | | 91.1 | | | 93.2 | | | 94.4 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 1.73 | U | | 1.74 | U | | 1.75 | U | | 1.77 | U | |
| 2-METHYLNAPHTHALENE | | 1.73 | U | | 1.74 | U | | 1.75 | U | | 1.77 | U | |
| ACENAPHTHENE | | 1.73 | U | | 1.74 | U | | 1.75 | U | | 1.77 | U | |
| ACENAPHTHYLENE | | 38.1 | | | 1.74 | U | | 26 | | | 1.77 | U | |
| ANTHRACENE | | 10.8 | J | G | 1.74 | U | | 7.63 | | | 1.77 | U | |
| BENZO(A)ANTHRACENE | | 87.6 | J | G | 1.74 | U | | 72.3 | | | 1.77 | U | |
| BENZO(A)PYRENE | | 203 | J | G | 1.74 | U | | 147 | | | 1.77 | U | |
| BENZO(B)FLUORANTHENE | | 216 | J | G | 1.74 | U | | 158 | | | 1.77 | U | |
| BENZO(G,H,I)PERYLENE | | 183 | | | 1.74 | U | | 138 | | | 1.77 | U | |
| BENZO(K)FLUORANTHENE | | 162 | J | G | 1.74 | U | | 124 | | | 1.77 | U | |
| CHRYSENE | | 115 | J | G | 1.74 | U | | 85.1 | | | 1.77 | U | |
| DIBENZO(A,H)ANTHRACENE | | 53.7 | J | G | 1.74 | U | | 43.1 | | | 1.77 | U | |
| FLUORANTHENE | | 114 | J | G | 1.74 | U | | 91 | | | 1.77 | U | |
| FLUORENE | | 1.73 | U | | 1.74 | U | | 1.75 | U | | 1.77 | U | |
| INDENO(1,2,3-CD)PYRENE | | 167 | J | G | 1.74 | U | | 124 | | | 1.77 | U | |
| NAPHTHALENE | | 1.73 | U | | 1.74 | U | | 1.75 | U | | 1.77 | U | |
| PHENANTHRENE | | 9.19 | | | 1.74 | U | | 18 | | | 1.77 | U | |
| PYRENE | | 143 | J | G | 1.74 | U | | 99.9 | | | 1.77 | U | |

| PROJ_NO: 02748 | NSAMPLE | FD-03-27-1201 | | | FD-03-27-1202 | | |
|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-17 | | | 1203203-18 | | |
| FRACTION: PAH | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | |
| | UNITS | UG/KG | | | UG/KG | | |
| | PCT_SOLIDS | 92.4 | | | 92.6 | | |
| | DUP_OF | 05-SO-130-4-6 | | | 05-SO-130-0-2 | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| 1-METHYLNAPHTHALENE | | 1.77 | U | | 1.75 | U | |
| 2-METHYLNAPHTHALENE | | 1.77 | U | | 1.75 | U | |
| ACENAPHTHENE | | 1.77 | U | | 1.75 | U | |
| ACENAPHTHYLENE | | 1.77 | U | | 23.7 | | |
| ANTHRACENE | | 1.77 | U | | 5.76 | J | GP |
| BENZO(A)ANTHRACENE | | 1.77 | U | | 40.5 | J | G |
| BENZO(A)PYRENE | | 1.77 | U | | 110 | J | G |
| BENZO(B)FLUORANTHENE | | 6.12 | J | P | 122 | J | G |
| BENZO(G,H,I)PERYLENE | | 5.98 | J | P | 122 | | |
| BENZO(K)FLUORANTHENE | | 4.48 | J | P | 86.5 | J | G |
| CHRYSENE | | 3.68 | J | P | 56.4 | J | G |
| DIBENZO(A,H)ANTHRACENE | | 1.77 | U | | 28.2 | J | G |
| FLUORANTHENE | | 4.08 | J | P | 44 | J | G |
| FLUORENE | | 1.77 | U | | 1.75 | U | |
| INDENO(1,2,3-CD)PYRENE | | 5.56 | J | P | 99.3 | J | G |
| NAPHTHALENE | | 1.77 | U | | 1.75 | U | |
| PHENANTHRENE | | 1.77 | U | | 6.48 | J | P |
| PYRENE | | 4.04 | J | P | 62.7 | J | G |

| | | | | |
|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | FB-03-27-1201 | | |
| **SDG: 1203203** | LAB_ID | 1203203-19 | | |
| **FRACTION: PET** | SAMP_DATE | 3/27/2012 | | |
| **MEDIA: WATER** | QC_TYPE | NM | | |
| | UNITS | MG/L | | |
| | PCT_SOLIDS | 0.0 | | |
| | DUP_OF | | | |
| PARAMETER | | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 0.17 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-122-4-6 | | | 05-SO-123-4-6 | | | 05-SO-124-4-6 | | | 05-SO-125-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-01 | | | 1203203-02 | | | 1203203-03 | | | 1203203-04 | | |
| FRACTION: PET | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 90.8 | | | 93.3 | | | 89.8 | | | 93.3 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 39.8 | J | P | 11.6 | U | | 28.6 | J | P | 11.4 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-126-0-2 | | | 05-SO-126-4-6 | | | 05-SO-127-0-2 | | | 05-SO-127-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-05 | | | 1203203-06 | | | 1203203-07 | | | 1203203-08 | | |
| FRACTION: PET | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 94.2 | | | 90.9 | | | 92.5 | | | 91.4 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.5 | U | | 11.6 | U | | 11.5 | U | | 11.9 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-128-0-2 | | | 05-SO-128-4-6 | | | 05-SO-129-0-2 | | | 05-SO-129-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-09 | | | 1203203-10 | | | 1203203-11 | | | 1203203-12 | | |
| FRACTION: PET | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 91.8 | | | 92.1 | | | 93.4 | | | 83.4 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 19.4 | J | P | 11.9 | U | | 14.4 | J | P | 12.6 | U | |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-130-0-2 | | | 05-SO-130-4-6 | | | 05-SO-131-0-2 | | | 05-SO-131-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 1203203 | LAB_ID | 1203203-13 | | | 1203203-14 | | | 1203203-15 | | | 1203203-16 | | |
| FRACTION: PET | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 94.1 | | | 91.1 | | | 93.2 | | | 94.4 | | |
| | DUP_OF | | | | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 12 | J | P | 12 | U | | 392 | | | 14.7 | J | P |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **PROJ_NO: 02748** | NSAMPLE | FD-03-27-1201 | | | FD-03-27-1202 | | |
| **SDG: 1203203** | LAB_ID | 1203203-17 | | | 1203203-18 | | |
| **FRACTION: PET** | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | |
| **MEDIA: SOIL** | QC_TYPE | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 92.4 | | | 92.6 | | |
| | DUP_OF | 05-SO-130-4-6 | | | 05-SO-130-0-2 | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| TPH (C08-C40) | | 11.4 | U | | 29 | J | P |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# ANALYSIS DATA SHEET

**FB-03-27-1201**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Water | Laboratory ID: | 1203203-19 | File ID: | 0320319.D |
| Sampled: | 03/27/12 00:01 | Prepared: | 04/02/12 14:43 | Analyzed: | 04/05/12 09:36 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 2D02012 Sequence: 2D09605 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0481 | 0.0962 | 0.192 | U |
| 208-96-8 | Acenaphthylene | | 0.0481 | 0.0962 | 0.192 | Q, U |
| 120-12-7 | Anthracene | | 0.0481 | 0.0962 | 0.192 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0481 | 0.0962 | 0.192 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0481 | 0.0962 | 0.192 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0481 | 0.0962 | 0.192 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0481 | 0.0962 | 0.192 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0481 | 0.0962 | 0.192 | U |
| 218-01-9 | Chrysene | | 0.0481 | 0.0962 | 0.192 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0481 | 0.0962 | 0.192 | U |
| 206-44-0 | Fluoranthene | | 0.0481 | 0.0962 | 0.192 | U |
| 86-73-7 | Fluorene | | 0.0481 | 0.0962 | 0.192 | Q, U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0481 | 0.0962 | 0.192 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0481 | 0.0962 | 0.192 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0481 | 0.0962 | 0.192 | U |
| 91-20-3 | Naphthalene | | 0.0481 | 0.0962 | 0.192 | U |
| 85-01-8 | Phenanthrene | | 0.0962 | 0.192 | 0.385 | U |
| 129-00-0 | Pyrene | | 0.0481 | 0.0962 | 0.192 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 48.08 | 35.22 | 73.3 | 34 - 167 | |
| Terphenyl-d14 | 48.08 | 51.46 | 107 | 34 - 167 | |

# ANALYSIS DATA SHEET

**05-SO-122-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-01 | File ID: | 0320301.D |
| Sampled: | 03/27/12 08:10 | Prepared: | 03/29/12 14:14 | Analyzed: | 04/06/12 07:02 |
| Solids: | 90.82 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29006 Sequence: 2D09704 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.83 | 3.64 | 7.30 | U |
| 208-96-8 | Acenaphthylene | | 1.83 | 3.64 | 7.30 | U |
| 120-12-7 | Anthracene | | 1.83 | 3.64 | 7.30 | U |
| 56-55-3 | Benzo(a)anthracene | 8.21 | 1.83 | 3.64 | 7.30 | Y |
| 50-32-8 | Benzo(a)pyrene | | 1.83 | 3.64 | 7.30 | U |
| 205-99-2 | Benzo(b)fluoranthene | 14.0 | 1.83 | 3.64 | 7.30 | |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.83 | 3.64 | 7.30 | U |
| 207-08-9 | Benzo(k)fluoranthene | 11.9 | 1.83 | 3.64 | 7.30 | |
| 218-01-9 | Chrysene | 12.9 | 1.83 | 3.64 | 7.30 | |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.83 | 3.64 | 7.30 | U |
| 206-44-0 | Fluoranthene | 16.1 | 1.83 | 3.64 | 7.30 | |
| 86-73-7 | Fluorene | | 1.83 | 3.64 | 7.30 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 6.76 | 1.83 | 3.64 | 7.30 | I |
| 90-12-0 | 1-Methylnaphthalene | | 1.83 | 3.64 | 7.30 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.83 | 3.64 | 7.30 | U |
| 91-20-3 | Naphthalene | | 1.83 | 3.64 | 7.30 | U |
| 85-01-8 | Phenanthrene | 4.45 | 1.83 | 3.64 | 7.30 | I |
| 129-00-0 | Pyrene | 16.3 | 1.83 | 3.64 | 7.30 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3646 | 2205 | 60.5 | 14 - 129 | |
| Terphenyl-d14 | 3646 | 2941 | 80.7 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-123-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-02 | File ID: | 0320302.D |
| Sampled: | 03/27/12 08:35 | Prepared: | 03/29/12 14:14 | Analyzed: | 04/06/12 07:30 |
| Solids: | 93.34 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29006 Sequence: 2D09704 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.77 | 3.52 | 7.05 | U |
| 208-96-8 | Acenaphthylene | | 1.77 | 3.52 | 7.05 | U |
| 120-12-7 | Anthracene | | 1.77 | 3.52 | 7.05 | U |
| 56-55-3 | Benzo(a)anthracene | 6.22 | 1.77 | 3.52 | 7.05 | Y, I |
| 50-32-8 | Benzo(a)pyrene | 9.44 | 1.77 | 3.52 | 7.05 | |
| 205-99-2 | Benzo(b)fluoranthene | 10.4 | 1.77 | 3.52 | 7.05 | |
| 191-24-2 | Benzo(g,h,i)perylene | 10.2 | 1.77 | 3.52 | 7.05 | |
| 207-08-9 | Benzo(k)fluoranthene | 9.87 | 1.77 | 3.52 | 7.05 | |
| 218-01-9 | Chrysene | 6.62 | 1.77 | 3.52 | 7.05 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.77 | 3.52 | 7.05 | U |
| 206-44-0 | Fluoranthene | 8.69 | 1.77 | 3.52 | 7.05 | |
| 86-73-7 | Fluorene | | 1.77 | 3.52 | 7.05 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 6.66 | 1.77 | 3.52 | 7.05 | I |
| 90-12-0 | 1-Methylnaphthalene | | 1.77 | 3.52 | 7.05 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.77 | 3.52 | 7.05 | U |
| 91-20-3 | Naphthalene | | 1.77 | 3.52 | 7.05 | U |
| 85-01-8 | Phenanthrene | | 1.77 | 3.52 | 7.05 | U |
| 129-00-0 | Pyrene | 8.24 | 1.77 | 3.52 | 7.05 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3524 | 2149 | 61.0 | 14 - 129 | |
| Terphenyl-d14 | 3524 | 3165 | 89.8 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-124-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-03 | File ID: | 0320303.D |
| Sampled: | 03/27/12 08:25 | Prepared: | 03/29/12 14:14 | Analyzed: | 04/06/12 07:57 |
| Solids: | 89.85 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29006 Sequence: 2D09704 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.82 | 3.63 | 7.28 | U |
| 208-96-8 | Acenaphthylene | | 1.82 | 3.63 | 7.28 | U |
| 120-12-7 | Anthracene | | 1.82 | 3.63 | 7.28 | U |
| 56-55-3 | Benzo(a)anthracene | 14.6 | 1.82 | 3.63 | 7.28 | Y |
| 50-32-8 | Benzo(a)pyrene | 14.8 | 1.82 | 3.63 | 7.28 | |
| 205-99-2 | Benzo(b)fluoranthene | 21.6 | 1.82 | 3.63 | 7.28 | |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.82 | 3.63 | 7.28 | U |
| 207-08-9 | Benzo(k)fluoranthene | 19.0 | 1.82 | 3.63 | 7.28 | |
| 218-01-9 | Chrysene | 17.5 | 1.82 | 3.63 | 7.28 | |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.82 | 3.63 | 7.28 | U |
| 206-44-0 | Fluoranthene | 31.1 | 1.82 | 3.63 | 7.28 | |
| 86-73-7 | Fluorene | | 1.82 | 3.63 | 7.28 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 11.1 | 1.82 | 3.63 | 7.28 | |
| 90-12-0 | 1-Methylnaphthalene | 5.98 | 1.82 | 3.63 | 7.28 | I |
| 91-57-6 | 2-Methylnaphthalene | 14.7 | 1.82 | 3.63 | 7.28 | |
| 91-20-3 | Naphthalene | 11.6 | 1.82 | 3.63 | 7.28 | |
| 85-01-8 | Phenanthrene | 14.2 | 1.82 | 3.63 | 7.28 | |
| 129-00-0 | Pyrene | 30.0 | 1.82 | 3.63 | 7.28 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3637 | 2064 | 56.8 | 14 - 129 | |
| Terphenyl-d14 | 3637 | 2992 | 82.3 | 14 - 129 | |

# ANALYSIS DATA SHEET

05-SO-125-4-6

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-04 | File ID: | 0320304.D |
| Sampled: | 03/27/12 08:45 | Prepared: | 03/29/12 14:14 | Analyzed: | 04/06/12 08:26 |
| Solids: | 93.26 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29006 Sequence: 2D09704 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.77 | 3.52 | 7.06 | U |
| 208-96-8 | Acenaphthylene | | 1.77 | 3.52 | 7.06 | U |
| 120-12-7 | Anthracene | | 1.77 | 3.52 | 7.06 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.77 | 3.52 | 7.06 | Y, U |
| 50-32-8 | Benzo(a)pyrene | | 1.77 | 3.52 | 7.06 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.77 | 3.52 | 7.06 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.77 | 3.52 | 7.06 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.77 | 3.52 | 7.06 | U |
| 218-01-9 | Chrysene | | 1.77 | 3.52 | 7.06 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.77 | 3.52 | 7.06 | U |
| 206-44-0 | Fluoranthene | | 1.77 | 3.52 | 7.06 | U |
| 86-73-7 | Fluorene | | 1.77 | 3.52 | 7.06 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.77 | 3.52 | 7.06 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.77 | 3.52 | 7.06 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.77 | 3.52 | 7.06 | U |
| 91-20-3 | Naphthalene | | 1.77 | 3.52 | 7.06 | U |
| 85-01-8 | Phenanthrene | | 1.77 | 3.52 | 7.06 | U |
| 129-00-0 | Pyrene | | 1.77 | 3.52 | 7.06 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3527 | 2284 | 64.8 | 14 - 129 | |
| Terphenyl-d14 | 3527 | 3599 | 102 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-126-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-05 | File ID: | 0320305.D |
| Sampled: | 03/27/12 09:00 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/06/12 20:09 |
| Solids: | 94.18 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2DI0108 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.72 | 3.42 | 6.85 | U |
| 208-96-8 | Acenaphthylene | | 1.72 | 3.42 | 6.85 | U |
| 120-12-7 | Anthracene | | 1.72 | 3.42 | 6.85 | U |
| 56-55-3 | Benzo(a)anthracene | 5.82 | 1.72 | 3.42 | 6.85 | I |
| 50-32-8 | Benzo(a)pyrene | 12.9 | 1.72 | 3.42 | 6.85 | |
| 205-99-2 | Benzo(b)fluoranthene | 15.0 | 1.72 | 3.42 | 6.85 | |
| 191-24-2 | Benzo(g,h,i)perylene | 18.2 | 1.72 | 3.42 | 6.85 | |
| 207-08-9 | Benzo(k)fluoranthene | 10.2 | 1.72 | 3.42 | 6.85 | |
| 218-01-9 | Chrysene | 8.54 | 1.72 | 3.42 | 6.85 | N |
| 53-70-3 | Dibenz(a,h)anthracene | 4.91 | 1.72 | 3.42 | 6.85 | I |
| 206-44-0 | Fluoranthene | 6.52 | 1.72 | 3.42 | 6.85 | I |
| 86-73-7 | Fluorene | | 1.72 | 3.42 | 6.85 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 13.9 | 1.72 | 3.42 | 6.85 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.72 | 3.42 | 6.85 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.72 | 3.42 | 6.85 | U |
| 91-20-3 | Naphthalene | | 1.72 | 3.42 | 6.85 | U |
| 85-01-8 | Phenanthrene | | 1.72 | 3.42 | 6.85 | U |
| 129-00-0 | Pyrene | 7.74 | 1.72 | 3.42 | 6.85 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3425 | 2602 | 76.0 | 14 - 129 | |
| Terphenyl-d14 | 3425 | 3834 | 112 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-126-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-06 | File ID: | 0320306.D |
| Sampled: | 03/27/12 09:10 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/06/12 21:33 |
| Solids: | 90.95 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D10108 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.82 | 3.64 | 7.29 | U |
| 208-96-8 | Acenaphthylene | | 1.82 | 3.64 | 7.29 | U |
| 120-12-7 | Anthracene | | 1.82 | 3.64 | 7.29 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.82 | 3.64 | 7.29 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.82 | 3.64 | 7.29 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.82 | 3.64 | 7.29 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.82 | 3.64 | 7.29 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.82 | 3.64 | 7.29 | U |
| 218-01-9 | Chrysene | | 1.82 | 3.64 | 7.29 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.82 | 3.64 | 7.29 | U |
| 206-44-0 | Fluoranthene | | 1.82 | 3.64 | 7.29 | U |
| 86-73-7 | Fluorene | | 1.82 | 3.64 | 7.29 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.82 | 3.64 | 7.29 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.82 | 3.64 | 7.29 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.82 | 3.64 | 7.29 | U |
| 91-20-3 | Naphthalene | | 1.82 | 3.64 | 7.29 | U |
| 85-01-8 | Phenanthrene | | 1.82 | 3.64 | 7.29 | U |
| 129-00-0 | Pyrene | | 1.82 | 3.64 | 7.29 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3641 | 2725 | 74.8 | 14 - 129 | |
| Terphenyl-d14 | 3641 | 4182 | 115 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-127-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-07 | File ID: | 0320307.D |
| Sampled: | 03/27/12 09:20 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/06/12 22:01 |
| Solids: | 92.46 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D10108 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.78 | 3.55 | 7.12 | U |
| 208-96-8 | Acenaphthylene | | 1.78 | 3.55 | 7.12 | U |
| 120-12-7 | Anthracene | | 1.78 | 3.55 | 7.12 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.78 | 3.55 | 7.12 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.78 | 3.55 | 7.12 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.78 | 3.55 | 7.12 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 3.98 | 1.78 | 3.55 | 7.12 | 1 |
| 207-08-9 | Benzo(k)fluoranthene | | 1.78 | 3.55 | 7.12 | U |
| 218-01-9 | Chrysene | | 1.78 | 3.55 | 7.12 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.78 | 3.55 | 7.12 | U |
| 206-44-0 | Fluoranthene | | 1.78 | 3.55 | 7.12 | U |
| 86-73-7 | Fluorene | | 1.78 | 3.55 | 7.12 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 3.73 | 1.78 | 3.55 | 7.12 | I |
| 90-12-0 | 1-Methylnaphthalene | | 1.78 | 3.55 | 7.12 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.78 | 3.55 | 7.12 | U |
| 91-20-3 | Naphthalene | | 1.78 | 3.55 | 7.12 | U |
| 85-01-8 | Phenanthrene | | 1.78 | 3.55 | 7.12 | U |
| 129-00-0 | Pyrene | | 1.78 | 3.55 | 7.12 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3558 | 2716 | 76.3 | 14 - 129 | |
| Terphenyl-d14 | 3558 | 4351 | 122 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-127-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-08 | File ID: | 0320308.D |
| Sampled: | 03/27/12 09:30 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/06/12 22:29 |
| Solids: | 91.41 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D10108 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.83 | 3.64 | 7.30 | U |
| 208-96-8 | Acenaphthylene | | 1.83 | 3.64 | 7.30 | U |
| 120-12-7 | Anthracene | | 1.83 | 3.64 | 7.30 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.83 | 3.64 | 7.30 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.83 | 3.64 | 7.30 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.83 | 3.64 | 7.30 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.83 | 3.64 | 7.30 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.83 | 3.64 | 7.30 | U |
| 218-01-9 | Chrysene | | 1.83 | 3.64 | 7.30 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.83 | 3.64 | 7.30 | U |
| 206-44-0 | Fluoranthene | | 1.83 | 3.64 | 7.30 | U |
| 86-73-7 | Fluorene | | 1.83 | 3.64 | 7.30 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.83 | 3.64 | 7.30 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.83 | 3.64 | 7.30 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.83 | 3.64 | 7.30 | U |
| 91-20-3 | Naphthalene | | 1.83 | 3.64 | 7.30 | U |
| 85-01-8 | Phenanthrene | | 1.83 | 3.64 | 7.30 | U |
| 129-00-0 | Pyrene | | 1.83 | 3.64 | 7.30 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3647 | 2605 | 71.4 | 14 - 129 | |
| Terphenyl-d14 | 3647 | 4044 | 111 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-128-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-09 | File ID: | 0320309.D |
| Sampled: | 03/27/12 09:35 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/07/12 01:37 |
| Solids: | 91.76 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D09801 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.78 | 3.56 | 7.13 | U |
| 208-96-8 | Acenaphthylene | 106 | 1.78 | 3.56 | 7.13 | |
| 120-12-7 | Anthracene | 28.6 | 1.78 | 3.56 | 7.13 | |
| 56-55-3 | Benzo(a)anthracene | 316 | 1.78 | 3.56 | 7.13 | |
| 50-32-8 | Benzo(a)pyrene | 590 | 1.78 | 3.56 | 7.13 | |
| 205-99-2 | Benzo(b)fluoranthene | 592 | 1.78 | 3.56 | 7.13 | |
| 191-24-2 | Benzo(g,h,i)perylene | 542 | 1.78 | 3.56 | 7.13 | |
| 207-08-9 | Benzo(k)fluoranthene | 475 | 1.78 | 3.56 | 7.13 | |
| 218-01-9 | Chrysene | 338 | 1.78 | 3.56 | 7.13 | |
| 53-70-3 | Dibenz(a,h)anthracene | 158 | 1.78 | 3.56 | 7.13 | |
| 206-44-0 | Fluoranthene | 363 | 1.78 | 3.56 | 7.13 | |
| 86-73-7 | Fluorene | | 1.78 | 3.56 | 7.13 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 477 | 1.78 | 3.56 | 7.13 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.78 | 3.56 | 7.13 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.78 | 3.56 | 7.13 | U |
| 91-20-3 | Naphthalene | 6.12 | 1.78 | 3.56 | 7.13 | I |
| 85-01-8 | Phenanthrene | 45.6 | 1.78 | 3.56 | 7.13 | |
| 129-00-0 | Pyrene | 420 | 1.78 | 3.56 | 7.13 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3561 | 2548 | 71.5 | 14 - 129 | |
| Terphenyl-d14 | 3561 | 4065 | 114 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-128-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-10 | File ID: | 0320310.D |
| Sampled: | 03/27/12 09:40 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/07/12 02:04 |
| Solids: | 92.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D09801 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.79 | 3.57 | 7.14 | U |
| 208-96-8 | Acenaphthylene | 7.79 | 1.79 | 3.57 | 7.14 | |
| 120-12-7 | Anthracene | | 1.79 | 3.57 | 7.14 | U |
| 56-55-3 | Benzo(a)anthracene | 15.3 | 1.79 | 3.57 | 7.14 | |
| 50-32-8 | Benzo(a)pyrene | 43.4 | 1.79 | 3.57 | 7.14 | |
| 205-99-2 | Benzo(b)fluoranthene | 50.0 | 1.79 | 3.57 | 7.14 | |
| 191-24-2 | Benzo(g,h,i)perylene | 43.8 | 1.79 | 3.57 | 7.14 | |
| 207-08-9 | Benzo(k)fluoranthene | 32.6 | 1.79 | 3.57 | 7.14 | |
| 218-01-9 | Chrysene | 22.6 | 1.79 | 3.57 | 7.14 | |
| 53-70-3 | Dibenz(a,h)anthracene | 11.2 | 1.79 | 3.57 | 7.14 | |
| 206-44-0 | Fluoranthene | 20.2 | 1.79 | 3.57 | 7.14 | |
| 86-73-7 | Fluorene | | 1.79 | 3.57 | 7.14 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 36.9 | 1.79 | 3.57 | 7.14 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.79 | 3.57 | 7.14 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.79 | 3.57 | 7.14 | U |
| 91-20-3 | Naphthalene | | 1.79 | 3.57 | 7.14 | U |
| 85-01-8 | Phenanthrene | 4.68 | 1.79 | 3.57 | 7.14 | 1 |
| 129-00-0 | Pyrene | 24.1 | 1.79 | 3.57 | 7.14 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3570 | 2487 | 69.6 | 14 - 129 | |
| Terphenyl-d14 | 3570 | 4267 | 120 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-129-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-11 | File ID: | 0320311.D |
| Sampled: | 03/27/12 09:45 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/07/12 02:32 |
| Solids: | 93.38 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D09801 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.72 | 3.43 | 6.87 | U |
| 208-96-8 | Acenaphthylene | 15.5 | 1.72 | 3.43 | 6.87 | |
| 120-12-7 | Anthracene | 4.11 | 1.72 | 3.43 | 6.87 | I |
| 56-55-3 | Benzo(a)anthracene | 32.1 | 1.72 | 3.43 | 6.87 | |
| 50-32-8 | Benzo(a)pyrene | 63.1 | 1.72 | 3.43 | 6.87 | |
| 205-99-2 | Benzo(b)fluoranthene | 68.6 | 1.72 | 3.43 | 6.87 | |
| 191-24-2 | Benzo(g,h,i)perylene | 82.2 | 1.72 | 3.43 | 6.87 | |
| 207-08-9 | Benzo(k)fluoranthene | 47.2 | 1.72 | 3.43 | 6.87 | |
| 218-01-9 | Chrysene | 39.9 | 1.72 | 3.43 | 6.87 | |
| 53-70-3 | Dibenz(a,h)anthracene | 19.1 | 1.72 | 3.43 | 6.87 | |
| 206-44-0 | Fluoranthene | 44.4 | 1.72 | 3.43 | 6.87 | |
| 86-73-7 | Fluorene | | 1.72 | 3.43 | 6.87 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 57.3 | 1.72 | 3.43 | 6.87 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.72 | 3.43 | 6.87 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.72 | 3.43 | 6.87 | U |
| 91-20-3 | Naphthalene | | 1.72 | 3.43 | 6.87 | U |
| 85-01-8 | Phenanthrene | 7.18 | 1.72 | 3.43 | 6.87 | |
| 129-00-0 | Pyrene | 44.1 | 1.72 | 3.43 | 6.87 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3432 | 2403 | 70.0 | 14 - 129 | |
| Terphenyl-d14 | 3432 | 4093 | 119 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-129-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-12 | File ID: | 0320312.D |
| Sampled: | 03/27/12 09:50 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/06/12 22:56 |
| Solids: | 83.38 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D10108 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 2.00 | 3.99 | 8.00 | U |
| 208-96-8 | Acenaphthylene | | 2.00 | 3.99 | 8.00 | U |
| 120-12-7 | Anthracene | | 2.00 | 3.99 | 8.00 | U |
| 56-55-3 | Benzo(a)anthracene | 4.77 | 2.00 | 3.99 | 8.00 | I |
| 50-32-8 | Benzo(a)pyrene | 6.44 | 2.00 | 3.99 | 8.00 | I |
| 205-99-2 | Benzo(b)fluoranthene | | 2.00 | 3.99 | 8.00 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 7.12 | 2.00 | 3.99 | 8.00 | I |
| 207-08-9 | Benzo(k)fluoranthene | | 2.00 | 3.99 | 8.00 | U |
| 218-01-9 | Chrysene | 5.24 | 2.00 | 3.99 | 8.00 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 2.00 | 3.99 | 8.00 | U |
| 206-44-0 | Fluoranthene | 7.91 | 2.00 | 3.99 | 8.00 | I |
| 86-73-7 | Fluorene | | 2.00 | 3.99 | 8.00 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.32 | 2.00 | 3.99 | 8.00 | I |
| 90-12-0 | 1-Methylnaphthalene | | 2.00 | 3.99 | 8.00 | U |
| 91-57-6 | 2-Methylnaphthalene | | 2.00 | 3.99 | 8.00 | U |
| 91-20-3 | Naphthalene | | 2.00 | 3.99 | 8.00 | U |
| 85-01-8 | Phenanthrene | | 2.00 | 3.99 | 8.00 | U |
| 129-00-0 | Pyrene | 7.56 | 2.00 | 3.99 | 8.00 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3998 | 2886 | 72.2 | 14 - 129 | |
| Terphenyl-d14 | 3998 | 4534 | 113 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-130-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-13 | File ID: | 0320313.D |
| Sampled: | 03/27/12 10:05 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/07/12 03:00 |
| Solids: | 94.05 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D09801 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.73 | 3.45 | 6.91 | U |
| 208-96-8 | Acenaphthylene | 38.1 | 1.73 | 3.45 | 6.91 | |
| 120-12-7 | Anthracene | 10.8 | 1.73 | 3.45 | 6.91 | |
| 56-55-3 | Benzo(a)anthracene | 87.6 | 1.73 | 3.45 | 6.91 | |
| 50-32-8 | Benzo(a)pyrene | 203 | 1.73 | 3.45 | 6.91 | |
| 205-99-2 | Benzo(b)fluoranthene | 216 | 1.73 | 3.45 | 6.91 | |
| 191-24-2 | Benzo(g,h,i)perylene | 183 | 1.73 | 3.45 | 6.91 | |
| 207-08-9 | Benzo(k)fluoranthene | 162 | 1.73 | 3.45 | 6.91 | |
| 218-01-9 | Chrysene | 115 | 1.73 | 3.45 | 6.91 | |
| 53-70-3 | Dibenz(a,h)anthracene | 53.7 | 1.73 | 3.45 | 6.91 | |
| 206-44-0 | Fluoranthene | 114 | 1.73 | 3.45 | 6.91 | |
| 86-73-7 | Fluorene | | 1.73 | 3.45 | 6.91 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 167 | 1.73 | 3.45 | 6.91 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.73 | 3.45 | 6.91 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.73 | 3.45 | 6.91 | U |
| 91-20-3 | Naphthalene | | 1.73 | 3.45 | 6.91 | U |
| 85-01-8 | Phenanthrene | 9.19 | 1.73 | 3.45 | 6.91 | |
| 129-00-0 | Pyrene | 143 | 1.73 | 3.45 | 6.91 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3452 | 2415 | 70.0 | 14 - 129 | |
| Terphenyl-d14 | 3452 | 4070 | 118 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-130-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-14 | File ID: | 0320314.D |
| Sampled: | 03/27/12 10:10 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/06/12 23:24 |
| Solids: | 91.10 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D10108 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.74 | 3.47 | 6.95 | U |
| 208-96-8 | Acenaphthylene | | 1.74 | 3.47 | 6.95 | U |
| 120-12-7 | Anthracene | | 1.74 | 3.47 | 6.95 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.74 | 3.47 | 6.95 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.74 | 3.47 | 6.95 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.74 | 3.47 | 6.95 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.74 | 3.47 | 6.95 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.74 | 3.47 | 6.95 | U |
| 218-01-9 | Chrysene | | 1.74 | 3.47 | 6.95 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.74 | 3.47 | 6.95 | U |
| 206-44-0 | Fluoranthene | | 1.74 | 3.47 | 6.95 | U |
| 86-73-7 | Fluorene | | 1.74 | 3.47 | 6.95 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.74 | 3.47 | 6.95 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.74 | 3.47 | 6.95 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.74 | 3.47 | 6.95 | U |
| 91-20-3 | Naphthalene | | 1.74 | 3.47 | 6.95 | U |
| 85-01-8 | Phenanthrene | | 1.74 | 3.47 | 6.95 | U |
| 129-00-0 | Pyrene | | 1.74 | 3.47 | 6.95 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3474 | 2595 | 74.7 | 14 - 129 | |
| Terphenyl-d14 | 3474 | 4181 | 120 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-131-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-15 | File ID: | 0320315.D |
| Sampled: | 03/27/12 09:55 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/07/12 03:27 |
| Solids: | 93.16 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D09801 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.75 | 3.48 | 6.97 | U |
| 208-96-8 | Acenaphthylene | 26.0 | 1.75 | 3.48 | 6.97 | |
| 120-12-7 | Anthracene | 7.63 | 1.75 | 3.48 | 6.97 | |
| 56-55-3 | Benzo(a)anthracene | 72.3 | 1.75 | 3.48 | 6.97 | |
| 50-32-8 | Benzo(a)pyrene | 147 | 1.75 | 3.48 | 6.97 | |
| 205-99-2 | Benzo(b)fluoranthene | 158 | 1.75 | 3.48 | 6.97 | |
| 191-24-2 | Benzo(g,h,i)perylene | 138 | 1.75 | 3.48 | 6.97 | |
| 207-08-9 | Benzo(k)fluoranthene | 124 | 1.75 | 3.48 | 6.97 | |
| 218-01-9 | Chrysene | 85.1 | 1.75 | 3.48 | 6.97 | |
| 53-70-3 | Dibenz(a,h)anthracene | 43.1 | 1.75 | 3.48 | 6.97 | |
| 206-44-0 | Fluoranthene | 91.0 | 1.75 | 3.48 | 6.97 | |
| 86-73-7 | Fluorene | | 1.75 | 3.48 | 6.97 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 124 | 1.75 | 3.48 | 6.97 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.75 | 3.48 | 6.97 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.75 | 3.48 | 6.97 | U |
| 91-20-3 | Naphthalene | | 1.75 | 3.48 | 6.97 | U |
| 85-01-8 | Phenanthrene | 18.0 | 1.75 | 3.48 | 6.97 | |
| 129-00-0 | Pyrene | 99.9 | 1.75 | 3.48 | 6.97 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3485 | 2104 | 60.4 | 14 - 129 | |
| Terphenyl-d14 | 3485 | 3783 | 109 | 14 - 129 | |

# ANALYSIS DATA SHEET

**05-SO-131-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-16 | File ID: | 0320316.D |
| Sampled: | 03/27/12 10:00 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/06/12 23:52 |
| Solids: | 94.39 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D10108 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.77 | 3.53 | 7.07 | U |
| 208-96-8 | Acenaphthylene | | 1.77 | 3.53 | 7.07 | U |
| 120-12-7 | Anthracene | | 1.77 | 3.53 | 7.07 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.77 | 3.53 | 7.07 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.77 | 3.53 | 7.07 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.77 | 3.53 | 7.07 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.77 | 3.53 | 7.07 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.77 | 3.53 | 7.07 | U |
| 218-01-9 | Chrysene | | 1.77 | 3.53 | 7.07 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.77 | 3.53 | 7.07 | U |
| 206-44-0 | Fluoranthene | | 1.77 | 3.53 | 7.07 | U |
| 86-73-7 | Fluorene | | 1.77 | 3.53 | 7.07 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.77 | 3.53 | 7.07 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.77 | 3.53 | 7.07 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.77 | 3.53 | 7.07 | U |
| 91-20-3 | Naphthalene | | 1.77 | 3.53 | 7.07 | U |
| 85-01-8 | Phenanthrene | | 1.77 | 3.53 | 7.07 | U |
| 129-00-0 | Pyrene | | 1.77 | 3.53 | 7.07 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3531 | 2419 | 68.5 | 14 - 129 | |
| Terphenyl-d14 | 3531 | 3811 | 108 | 14 - 129 | |

# ANALYSIS DATA SHEET

**FD-03-27-1201**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-17 | File ID: | 0320317.D |
| Sampled: | 03/27/12 00:01 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/07/12 01:09 |
| Solids: | 92.44 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D09801 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.77 | 3.53 | 7.07 | U |
| 208-96-8 | Acenaphthylene | | 1.77 | 3.53 | 7.07 | U |
| 120-12-7 | Anthracene | | 1.77 | 3.53 | 7.07 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.77 | 3.53 | 7.07 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.77 | 3.53 | 7.07 | U |
| 205-99-2 | Benzo(b)fluoranthene | 6.12 | 1.77 | 3.53 | 7.07 | I |
| 191-24-2 | Benzo(g,h,i)perylene | 5.98 | 1.77 | 3.53 | 7.07 | I |
| 207-08-9 | Benzo(k)fluoranthene | 4.48 | 1.77 | 3.53 | 7.07 | I |
| 218-01-9 | Chrysene | 3.68 | 1.77 | 3.53 | 7.07 | I |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.77 | 3.53 | 7.07 | U |
| 206-44-0 | Fluoranthene | 4.08 | 1.77 | 3.53 | 7.07 | I |
| 86-73-7 | Fluorene | | 1.77 | 3.53 | 7.07 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.56 | 1.77 | 3.53 | 7.07 | I |
| 90-12-0 | 1-Methylnaphthalene | | 1.77 | 3.53 | 7.07 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.77 | 3.53 | 7.07 | U |
| 91-20-3 | Naphthalene | | 1.77 | 3.53 | 7.07 | U |
| 85-01-8 | Phenanthrene | | 1.77 | 3.53 | 7.07 | U |
| 129-00-0 | Pyrene | 4.04 | 1.77 | 3.53 | 7.07 | I |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3535 | 2504 | 70.8 | 14 - 129 | |
| Terphenyl-d14 | 3535 | 3916 | 111 | 14 - 129 | |

# ANALYSIS DATA SHEET

**FD-03-27-1202**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-18 | File ID: | 0320318.D |
| Sampled: | 03/27/12 00:01 | Prepared: | 03/30/12 13:53 | Analyzed: | 04/07/12 03:55 |
| Solids: | 92.55 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C30006 Sequence: 2D09801 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.75 | 3.48 | 6.97 | U |
| 208-96-8 | Acenaphthylene | 23.7 | 1.75 | 3.48 | 6.97 | |
| 120-12-7 | Anthracene | 5.76 | 1.75 | 3.48 | 6.97 | I |
| 56-55-3 | Benzo(a)anthracene | 40.5 | 1.75 | 3.48 | 6.97 | |
| 50-32-8 | Benzo(a)pyrene | 110 | 1.75 | 3.48 | 6.97 | |
| 205-99-2 | Benzo(b)fluoranthene | 122 | 1.75 | 3.48 | 6.97 | |
| 191-24-2 | Benzo(g,h,i)perylene | 122 | 1.75 | 3.48 | 6.97 | |
| 207-08-9 | Benzo(k)fluoranthene | 86.5 | 1.75 | 3.48 | 6.97 | |
| 218-01-9 | Chrysene | 56.4 | 1.75 | 3.48 | 6.97 | |
| 53-70-3 | Dibenz(a,h)anthracene | 28.2 | 1.75 | 3.48 | 6.97 | |
| 206-44-0 | Fluoranthene | 44.0 | 1.75 | 3.48 | 6.97 | |
| 86-73-7 | Fluorene | | 1.75 | 3.48 | 6.97 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 99.3 | 1.75 | 3.48 | 6.97 | |
| 90-12-0 | 1-Methylnaphthalene | | 1.75 | 3.48 | 6.97 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.75 | 3.48 | 6.97 | U |
| 91-20-3 | Naphthalene | | 1.75 | 3.48 | 6.97 | U |
| 85-01-8 | Phenanthrene | 6.48 | 1.75 | 3.48 | 6.97 | I |
| 129-00-0 | Pyrene | 62.7 | 1.75 | 3.48 | 6.97 | |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg dry) | CONC (ug/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3485 | 2337 | 67.0 | 14 - 129 | |
| Terphenyl-d14 | 3485 | 4169 | 120 | 14 - 129 | |

# ANALYSIS DATA SHEET

**FB-03-27-1201**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Water | Laboratory ID: | 1203203-19 | File ID: | 007F0701.D |
| Sampled: | 03/27/12 00:01 | Prepared: | 03/29/12 13:50 | Analyzed: | 04/11/12 13:39 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | 1 |

Batch: 2C29009 Sequence: 2D10307 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.05363 | 107 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.05679 | 114 | 82 - 142 | |

# ANALYSIS DATA SHEET

**05-SO-122-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-01 | File ID: | 077F7701.D |
| Sampled: | 03/27/12 08:10 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 06:12 |
| Solids: | 90.82 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 39.8 | 12.0 | 24.1 | 48.1 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.646 | 3.339 | 91.6 | 50 - 150 | |
| o-Terphenyl | 3.646 | 3.311 | 90.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-123-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-02 | File ID: | 078F7801.D |
| Sampled: | 03/27/12 08:35 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 06:45 |
| Solids: | 93.34 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 2C29026 | Sequence: | 2D09715 | Calibration: | 2097002 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.6 | 23.3 | 46.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.524 | 2.964 | 84.1 | 50 - 150 | |
| o-Terphenyl | 3.524 | 3.044 | 86.4 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-124-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-03 | File ID: | 079F7901.D |
| Sampled: | 03/27/12 08:25 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 07:18 |
| Solids: | 89.85 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 28.6 | 11.8 | 23.7 | 47.4 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.590 | 3.505 | 97.6 | 50 - 150 | |
| o-Terphenyl | 3.590 | 3.115 | 86.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-125-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-04 | File ID: | 080F8001.D |
| Sampled: | 03/27/12 08:45 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 07:51 |
| Solids: | 93.26 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 2C29026 | Sequence: | 2D09715 | Calibration: | 2097002 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.8 | 45.7 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.459 | 3.204 | 92.6 | 50 - 150 | |
| o-Terphenyl | 3.459 | 3.211 | 92.8 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-126-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-05 | File ID: | 082F8201.D |
| Sampled: | 03/27/12 09:00 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 08:58 |
| Solids: | 94.18 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.1 | 46.1 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.493 | 3.353 | 96.0 | 50 - 150 | |
| o-Terphenyl | 3.493 | 3.309 | 94.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-126-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-06 | File ID: | 083F8301.D |
| Sampled: | 03/27/12 09:10 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 09:41 |
| Solids: | 90.95 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.6 | 23.3 | 46.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.524 | 3.594 | 102 | 50 - 150 | |
| o-Terphenyl | 3.524 | 3.558 | 101 | 35 - 140 | |

# ANALYSIS DATA SHEET

05-SO-127-0-2

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-07 | File ID: | 084F8401.D |
| Sampled: | 03/27/12 09:20 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 10:15 |
| Solids: | 92.46 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.5 | 23.0 | 46.1 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.489 | 3.430 | 98.3 | 50 - 150 | |
| o-Terphenyl | 3.489 | 3.384 | 97.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-127-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-08 | File ID: | 085F8501.D |
| Sampled: | 03/27/12 09:30 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 10:48 |
| Solids: | 91.41 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.8 | 47.5 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.599 | 3.389 | 94.2 | 50 - 150 | |
| o-Terphenyl | 3.599 | 3.342 | 92.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-128-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-09 | File ID: | 086F8601.D |
| Sampled: | 03/27/12 09:35 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 11:22 |
| Solids: | 91.76 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 19.4 | 11.8 | 23.7 | 47.3 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.585 | 3.687 | 103 | 50 - 150 | |
| o-Terphenyl | 3.585 | 3.629 | 101 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-128-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-10 | File ID: | 087F8701.D |
| Sampled: | 03/27/12 09:40 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 11:55 |
| Solids: | 92.13 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.9 | 23.7 | 47.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.594 | 3.630 | 101 | 50 - 150 | |
| o-Terphenyl | 3.594 | 3.600 | 100 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-129-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-11 | File ID: | 088F8801.D |
| Sampled: | 03/27/12 09:45 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/06/12 12:29 |
| Solids: | 93.38 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 14.4 | 11.5 | 22.9 | 45.9 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.477 | 3.627 | 104 | 50 - 150 | |
| o-Terphenyl | 3.477 | 3.550 | 102 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-129-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-12 | File ID: | 017F1701.D |
| Sampled: | 03/27/12 09:50 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/11/12 19:12 |
| Solids: | 83.38 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D10307 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.6 | 25.2 | 50.4 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.820 | 3.187 | 83.4 | 50 - 150 | |
| o-Terphenyl | 3.820 | 3.406 | 89.2 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-130-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-13 | File ID: | 018F1801.D |
| Sampled: | 03/27/12 10:05 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/11/12 19:45 |
| Solids: | 94.05 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D10307 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 12.0 | 11.4 | 22.8 | 45.6 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.452 | 2.966 | 85.9 | 50 - 150 | |
| o-Terphenyl | 3.452 | 3.036 | 88.0 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-130-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-14 | File ID: | 019F1901.D |
| Sampled: | 03/27/12 10:10 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/11/12 20:18 |
| Solids: | 91.10 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 2C29026 | Sequence: | 2D10307 | Calibration: | 2097002 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 12.0 | 24.0 | 48.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.635 | 2.739 | 75.3 | 50 - 150 | |
| o-Terphenyl | 3.635 | 2.970 | 81.7 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-131-0-2**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-15 | File ID: | 020F2001.D |
| Sampled: | 03/27/12 09:55 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/11/12 20:51 |
| Solids: | 93.16 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 2C29026 | Sequence: | 2D10307 | Calibration: | 2097002 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 392 | 11.4 | 22.9 | 45.7 | |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.463 | 3.036 | 87.7 | 50 - 150 | |
| o-Terphenyl | 3.463 | 3.581 | 103 | 35 - 140 | |

# ANALYSIS DATA SHEET

**05-SO-131-4-6**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-16 | File ID: | 021F2101.D |
| Sampled: | 03/27/12 10:00 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/11/12 21:25 |
| Solids: | 94.39 | Preparation: | EXT_3546 | Dilution: | 1 |
| Batch: | 2C29026 | Sequence: | 2D10307 | Calibration: | 2097002 |
| Instrument: | GL-GCFID2 | | | | |

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 14.7 | 11.5 | 23.0 | 46.0 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.485 | 2.874 | 82.5 | 50 - 150 | |
| o-Terphenyl | 3.485 | 3.204 | 91.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**FD-03-27-1201**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-17 | File ID: | 022F2201.D |
| Sampled: | 03/27/12 00:01 | Prepared: | 03/30/12 12:17 | Analyzed: | 04/11/12 21:58 |
| Solids: | 92.44 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2C29026 Sequence: 2D10307 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.4 | 22.9 | 45.8 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.467 | 3.296 | 95.1 | 50 - 150 | |
| o-Terphenyl | 3.467 | 3.152 | 90.9 | 35 - 140 | |

# ANALYSIS DATA SHEET

**FD-03-27-1202**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | | | Project: | NAS Pensacola CTOJM26 Saufley 20 |
| Matrix: | Soil | Laboratory ID: | 1203203-18 | File ID: | 013F1301.D |
| Sampled: | 03/27/12 00:01 | Prepared: | 04/04/12 09:30 | Analyzed: | 04/11/12 16:59 |
| Solids: | 92.55 | Preparation: | EXT_3546 | Dilution: | 1 |

Batch: 2D03014 Sequence: 2D10307 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/Kg dry) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | 29.0 | 11.8 | 23.6 | 47.2 | I |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg dry) | CONC (mg/Kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.578 | 3.033 | 84.8 | 50 - 150 | |
| o-Terphenyl | 3.578 | 3.312 | 92.6 | 35 - 140 | |

# APPENDIX C

## SUPPORT DOCUMENTATION

TNUS203

**Tetra Tech, Inc.**

CHAIN OF CUSTODY | NUMBER No. 0025 | PAGE 1 OF 2

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G03672 | Sontly Field Site 5 | Frank Lasseme | 850-385-9899 | Empirical Lab Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER: Larry Smith | PHONE NUMBER | ADDRESS: 621 Mainstream Rd Suite 270 |
| | | CARRIER/WAYBILL NUMBER: 8755 7387 3658 | | 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: Ice

| DATE YEAR 27 March 2012 | 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: EL-Pb (TRPH)(PAH) | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 0810 | ~~SF~~05-50-~~685~~ 122-4-6 | | 4.0 | 6.0 | 50 | G | 1 | 1 | |
| 02 | 0835 | ~~SF~~-05-50-~~685~~ 123-4-6 | | ↓ | ↓ | ↓ | ↓ | 1 | 1 | |
| 03 | 0825 | ~~SF~~-05-50-~~685~~ 124-4-6 | | | | | | 1 | 1 | |
| 04 | 0845 | ~~SF~~-05-50-~~685~~ 125-4-6 | | | | | | 1 | 1 | |
| 05 | 0900 | 05-50-126-0-2 | | 0 | 2 | | | 1 | 1 | |
| 06 | 0910 | 05-50-126-4-6 | | 4 | 6 | | | 1 | 1 | |
| 07 | 0920 | 05-50-127-0-2 | | 0 | 2 | | | 1 | 1 | |
| 08 | 0930 | 05-50-127-4-6 | | 4 | 6 | | | 1 | 1 | |
| 09 | 0935 | 05-50-128-0-2 | | 0 | 2 | | | 1 | 1 | |
| 10 | 0940 | 05-50-128-4-6 | | 4 | 6 | | | 1 | 1 | |
| 11 | 0945 | 05-50-129-0-2 | | 0 | 2 | | | 1 | 1 | |
| 12 | 0950 | 05-50-129-4-6 | | 4 | 6 | | | 1 | 1 | |
| | | ~~05-50-128-0-2~~ | | ~~0~~ | ~~2~~ | | | ~~1~~ | ~~1~~ | |

| 1. RELINQUISHED BY | DATE | TIME | 1. RECEIVED BY | DATE | TIME |
|---|---|---|---|---|---|
| | 27 March 2012 | 1600 | 1.7°C | 3/28/12 | 0820 |
| 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. TINUS-001

1205203

**Tetra Tech, Inc.**

CHAIN OF CUSTODY | NUMBER No. 0027 | PAGE 2 OF 2

| PROJECT NO: | FACILITY: | PROJECT MANAGER | PHONE NUMBER | LABORATORY NAME AND CONTACT: |
|---|---|---|---|---|
| 112G03672 | Southley Field | Frank Lesowe | 850-385-9899 | Empirical Lab Brian Richard |
| SAMPLERS (SIGNATURE) | | FIELD OPERATIONS LEADER | PHONE NUMBER | ADDRESS |
| Larry W Smith | | Larry Smith | | 621 Mainstream Rd Suite 270 |
| | | CARRIER/WAYBILL NUMBER | | CITY, STATE |
| | | 8755 7387 3658 | | Nashville, TN |

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

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

PRESERVATIVE USED: ice ice HCL

TYPE OF ANALYSIS: FLO-Pro (TRPH, PAH) / PAH-(SW8270) / FL-Pro (TRPH)

| DATE 27 March 2012 YEAR | 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 | FLO-Pro (TRPH, PAH) | PAH-(SW8270) | FL-Pro (TRPH) | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ~~05-SO-128-4-6~~ | | ~~4.0~~ | ~~6.0~~ | SO | G | 1 | 1 | | | | | | | | |
| | | ~~05-SO-129-0-2~~ | | ~~0.0~~ | ~~2.0~~ | | | | | | | | | | | | |
| | | ~~05-SO-129-4-6~~ | | ~~4.0~~ | ~~6.0~~ | | | | | | | | | | | | |
| 13 | 1005 | 05-SO-130-0-2 | | 0.0 | 2.0 | | | | | 1 | 1 | | | | | | |
| 14 | 1010 | 05-SO-130-4-6 | | 4.0 | 6.0 | | | | | 1 | 1 | | | | | | |
| 15 | 0956 | 05-SO-130-0-2 | | 0.0 | 2.0 | | | | | 1 | 1 | | | | | | |
| 16 | 1000 | 05-SO-131-4-6 | | 4.0 | 6.0 | | | | | 1 | 1 | | | | | | |
| 17 | 0000 | FD-03-27-1201 | | | | | | | | 1 | 1 | | | | | | |
| 18 | 0000 | FD-03-27-1202 | | | | | | | | 1 | 1 | | | | | | |
| 19 | | ~~FB~~ FB-03-27-1201 | | | | W | | | | 2 | 2 | | | | | | |

| | DATE | TIME | | DATE | TIME |
|---|---|---|---|---|---|
| 1. RELINQUISHED BY Larry W Smith | 27 March '12 | 1600 | 1. RECEIVED BY Jack Deville Jr. | 3-28-12 | 0820 |
| 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. TINUS-001

# HOLDTIME

SDG 1203203

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| PAH | UG/KG | 05-SO-128-0-2 | 1203203-09 | NM | 3/27/2012 | 3/30/2012 | 4/7/2012 | 3 | 8 | 11 |
| PAH | UG/KG | 05-SO-122-4-6 | 1203203-01 | NM | 3/27/2012 | 3/29/2012 | 4/6/2012 | 2 | 8 | 10 |
| PAH | UG/KG | FD-03-27-1201 | 1203203-17 | NM | 3/27/2012 | 3/30/2012 | 4/7/2012 | 3 | 8 | 11 |
| PAH | UG/KG | 05-SO-131-4-6 | 1203203-16 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| PAH | UG/KG | 05-SO-131-0-2 | 1203203-15 | NM | 3/27/2012 | 3/30/2012 | 4/7/2012 | 3 | 8 | 11 |
| PAH | UG/KG | 05-SO-130-4-6 | 1203203-14 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| PAH | UG/KG | 05-SO-130-0-2 | 1203203-13 | NM | 3/27/2012 | 3/30/2012 | 4/7/2012 | 3 | 8 | 11 |
| PAH | UG/KG | 05-SO-129-4-6 | 1203203-12 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| PAH | UG/KG | 05-SO-128-4-6 | 1203203-10 | NM | 3/27/2012 | 3/30/2012 | 4/7/2012 | 3 | 8 | 11 |
| PAH | UG/KG | FD-03-27-1202 | 1203203-18 | NM | 3/27/2012 | 3/30/2012 | 4/7/2012 | 3 | 8 | 11 |
| PAH | UG/KG | 05-SO-127-4-6 | 1203203-08 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| PAH | UG/KG | 05-SO-127-0-2 | 1203203-07 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| PAH | UG/KG | 05-SO-126-4-6 | 1203203-06 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| PAH | UG/KG | 05-SO-126-0-2 | 1203203-05 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| PAH | UG/KG | 05-SO-125-4-6 | 1203203-04 | NM | 3/27/2012 | 3/29/2012 | 4/6/2012 | 2 | 8 | 10 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| PAH | UG/KG | 05-SO-124-4-6 | 1203203-03 | NM | 3/27/2012 | 3/29/2012 | 4/6/2012 | 2 | 8 | 10 |
| PAH | UG/KG | 05-SO-123-4-6 | 1203203-02 | NM | 3/27/2012 | 3/29/2012 | 4/6/2012 | 2 | 8 | 10 |
| PAH | UG/KG | 05-SO-129-0-2 | 1203203-11 | NM | 3/27/2012 | 3/30/2012 | 4/7/2012 | 3 | 8 | 11 |
| PAH | UG/L | FB-03-27-1201 | 1203203-19 | NM | 3/27/2012 | 4/2/2012 | 4/5/2012 | 6 | 3 | 9 |
| TPH | MG/KG | 05-SO-128-0-2 | 1203203-09 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | FD-03-27-1202 | 1203203-18 | NM | 3/27/2012 | 4/4/2012 | 4/11/2012 | 8 | 7 | 15 |
| TPH | MG/KG | FD-03-27-1201 | 1203203-17 | NM | 3/27/2012 | 3/30/2012 | 4/11/2012 | 3 | 12 | 15 |
| TPH | MG/KG | 05-SO-131-4-6 | 1203203-16 | NM | 3/27/2012 | 3/30/2012 | 4/11/2012 | 3 | 12 | 15 |
| TPH | MG/KG | 05-SO-131-0-2 | 1203203-15 | NM | 3/27/2012 | 3/30/2012 | 4/11/2012 | 3 | 12 | 15 |
| TPH | MG/KG | 05-SO-130-4-6 | 1203203-14 | NM | 3/27/2012 | 3/30/2012 | 4/11/2012 | 3 | 12 | 15 |
| TPH | MG/KG | 05-SO-130-0-2 | 1203203-13 | NM | 3/27/2012 | 3/30/2012 | 4/11/2012 | 3 | 12 | 15 |
| TPH | MG/KG | 05-SO-129-4-6 | 1203203-12 | NM | 3/27/2012 | 3/30/2012 | 4/11/2012 | 3 | 12 | 15 |
| TPH | MG/KG | 05-SO-122-4-6 | 1203203-01 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | 05-SO-128-4-6 | 1203203-10 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | 05-SO-127-4-6 | 1203203-08 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | 05-SO-127-0-2 | 1203203-07 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | 05-SO-126-4-6 | 1203203-06 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | 05-SO-126-0-2 | 1203203-05 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SO-125-4-6 | 1203203-04 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | 05-SO-124-4-6 | 1203203-03 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | 05-SO-123-4-6 | 1203203-02 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/KG | 05-SO-129-0-2 | 1203203-11 | NM | 3/27/2012 | 3/30/2012 | 4/6/2012 | 3 | 7 | 10 |
| TPH | MG/L | FB-03-27-1201 | 1203203-19 | NM | 3/27/2012 | 3/29/2012 | 4/11/2012 | 2 | 13 | 15 |

Cooler Received/Opened On_ 03/28/12 @ 0820

1. Tracking # 3658 (last 4 digits, FedEx) WO# 1203203

Courier: ___FED-EX

2. Temperature of rep. sample or temp blank when opened: 1.9 Degrees Celsius + correction factor - 0.2 = 1.7

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 2 FRONT & BACK

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) JD

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # ___

I certify that I unloaded the cooler and answered questions 7-14 (intial) JD

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) JD

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) JD

I certify that I attached a label with the unique LIMS number to each container (intial) JD

21. Were there Non-Conformance issues at login? YES...NO Was a NCR generated? YES...NO...# ___

Additional Details:

WORK ORDER

Printed: 3/29/2012 8:35:40AM

**1203203**

## Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTOJM26 Saufley 2011
**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

**Report To:**
Tetra Tech NUS, Inc. (T010)
Tobrena Sedlmyer
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
661 Andersen Drive
Pittsburgh, PA 15220-2745
Phone :(412) 921-8182
Fax: (412) 921-4040

Due to Client: 04/18/2012 16:00 *This is the projected due date to the client, at the time of receipt, and is for report delivery via upload, and/or email, and/or shipment to meet TAT as setup by project*

Received By: Jack Deville
Date Received: 03/28/2012 08:20
Logged In By: Jack Deville
Date Logged In: 03/28/2012 13:30

Samples Received at: 1.7°C
Custody Seals Yes Received On Ice Yes
Containers Intact Yes
COC/Labels Agree Yes
Preservation Confirme Yes

| Method | Test Code | Due | TAT | Expires | Comments |
|---|---|---|---|---|---|
| **1203203-01 05-SO-122-4-6 [Solid] Sampled 03/27/2012 08:10 Central** | | | | | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 08:10 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 08:10 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 08:10 | |
| **1203203-02 05-SO-123-4-6 [Solid] Sampled 03/27/2012 08:35 Central** | | | | | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 08:35 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 08:35 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 08:35 | |
| **1203203-03 05-SO-124-4-6 [Solid] Sampled 03/27/2012 08:25 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 08:25 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 08:25 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 08:25 | |
| **1203203-04 05-SO-125-4-6 [Solid] Sampled 03/27/2012 08:45 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 08:45 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 08:45 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 08:45 | |
| **1203203-05 05-SO-126-0-2 [Solid] Sampled 03/27/2012 09:00 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:00 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:00 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:00 | |

# 1203203

## Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTOJM26 Saufley 2011
**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

| Method | Test Code | Due | TAT | Expires | Comments |
|---|---|---|---|---|---|
| **1203203-06 05-SO-126-4-6 [Solid] Sampled 03/27/2012 09:10 Central** | | | | | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:10 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:10 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:10 | |
| **1203203-07 05-SO-127-0-2 [Solid] Sampled 03/27/2012 09:20 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:20 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:20 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:20 | |
| **1203203-08 05-SO-127-4-6 [Solid] Sampled 03/27/2012 09:30 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:30 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:30 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:30 | |
| **1203203-09 05-SO-128-0-2 [Solid] Sampled 03/27/2012 09:35 Central** | | | | | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:35 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:35 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:35 | |
| **1203203-10 05-SO-128-4-6 [Solid] Sampled 03/27/2012 09:40 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:40 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:40 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:40 | |
| **1203203-11 05-SO-129-0-2 [Solid] Sampled 03/27/2012 09:45 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:45 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:45 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:45 | |
| **1203203-12 05-SO-129-4-6 [Solid] Sampled 03/27/2012 09:50 Central** | | | | | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:50 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:50 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:50 | |
| **1203203-13 05-SO-130-0-2 [Solid] Sampled 03/27/2012 10:05 Central** | | | | | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 10:05 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 10:05 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 10:05 | |

# 1203203

## Empirical Laboratories, LLC

**Client:** Tetra Tech NUS, Inc. (T010)
**Project:** NAS Pensacola CTOJM26 Saufley 2011
**Project Manager:** Brian Richard
**Project Number:** TET_CTOJM26

| Method | Test Code | Due | TAT | Expires | Comments |
|---|---|---|---|---|---|
| **1203203-14 05-SO-130-4-6 [Solid] Sampled 03/27/2012 10:10 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 10:10 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 10:10 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 10:10 | |
| **1203203-15 05-SO-131-0-2 [Solid] Sampled 03/27/2012 09:55 Central** | | | | | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 09:55 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 09:55 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 09:55 | |
| **1203203-16 05-SO-131-4-6 [Solid] Sampled 03/27/2012 10:00 Central** | | | | | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 10:00 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 10:00 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 10:00 | |
| **1203203-17 FD-03-27-1201 [Solid] Sampled 03/27/2012 00:01 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 00:01 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 00:01 | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 00:01 | |
| **1203203-18 FD-03-27-1202 [Solid] Sampled 03/27/2012 00:01 Central** | | | | | |
| FLPRO | SGC_FLPRO_3546 | 04/13/2012 14:00 | 15 | 04/10/2012 00:01 | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/10/2012 00:01 | |
| SM2540B | WC_PERCENT_SOLIDS_2540B | 04/13/2012 14:00 | 15 | 04/03/2012 00:01 | |
| **1203203-19 FB-03-27-1201 [Water] Sampled 03/27/2012 00:01 Central** | | | | | |
| SW8270D | SMS_PAH_8270D_LOW | 04/13/2012 14:00 | 15 | 04/03/2012 00:01 | |
| FLPRO | SGC_FLPRO_3510C | 04/13/2012 14:00 | 15 | 04/03/2012 00:01 | |

Reviewed By _____ Date _____

# Sample Delivery Group Assignment Form

CLIENT: Tetra Tech NUS, Inc. (T010)
PROJECT NAME: NAS Pensacola CTOJM26 Saufley 2011
SDG #: 1203203
MATRIX: Water

QC LEVEL: Level IV
Report Due: 4/18/2012
Client Sample Count: 16

| Sample Type | Sampled | Received | Lab ID | Client ID | FLPRO | SM2540B | SW8270D |
|---|---|---|---|---|---|---|---|
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-01 | 05-SO-122-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-02 | 05-SO-123-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-03 | 05-SO-124-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-04 | 05-SO-125-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-05 | 05-SO-126-0-2 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-06 | 05-SO-126-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-07 | 05-SO-127-0-2 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-08 | 05-SO-127-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-09 | 05-SO-128-0-2 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-10 | 05-SO-128-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-11 | 05-SO-129-0-2 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-12 | 05-SO-129-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-13 | 05-SO-130-0-2 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-14 | 05-SO-130-4-6 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-15 | 05-SO-131-0-2 | X | X | X |
| Client Sample | 3/27/2012 | 3/28/2012 | 1203203-16 | 05-SO-131-4-6 | X | X | X |
| Field Duplicate | 3/27/2012 | 3/28/2012 | 1203203-17 | FD-03-27-1201 | X | X | X |
| Field Duplicate | 3/27/2012 | 3/28/2012 | 1203203-18 | FD-03-27-1202 | X | X | X |
| Field Blank | 3/27/2012 | 3/28/2012 | 1203203-19 | FB-03-27-1201 | X | | X |

## Sample Delivery Group Case Narrative

### Receipt Information

The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

### Changes to the Revision

This is an original submittal of the final report package.

### Analytical Information

All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. Sample prep and dilution information is provided within the final results report and at the beginning of each form set. The following information is provided specific to individual methods:

### Chromatographic Flags for Manual Integration:

The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

**A:** The peak was manually integrated as it was not integrated in the original chromatogram.
**B:** The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
**C:** The peak was manually integrated to correct the baseline from the original chromatogram.
**D:** The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
**E:** The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

**SW8270D PAH:**
The following batch spikes exceeded criteria:
**2D02012-BS1/BSD1** exceeded relative percent difference criteria for Acenaphthylene and Fluorene

The following matrix spikes exceeded criteria:
**2C30006-MS1/MSD1 (1203203-05)** exceeded relative percent difference criteria for Chrysene

The following continuing calibration verification exceeded criteria:
**2D09704-CCV1** with a negative bias for Benzo(a)anthracene

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**FLPRO:**
The following surrogate exceeded the retention time window:
**o-Terphenyl** in 2D09715-CCV5, -CCV6, 2C29026-BLK1, -BS1, and 1203203-01; note – the result bias due to the retention time shift was determined to be negligible for all affected samples and QC.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

**Data Qualifiers**
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

**Analytical Report Terms and Qualifiers**

**MDL:** The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample containing the analyte in a given matrix. For DoD QSM 4.2 reporting purposes, this definition is also applied to the reported Detection Limit (DL).

**LOD:** The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.2 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

**LOQ:** The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.2 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*****: An exceeding quality control criteria is associated with the reported result.

**B**: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero. **For Florida DEP reports this qualifier is "V".**

**D:** When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

**E:** The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound. **For Florida DEP reports this qualifier is "L".**

**H1**: The result was analyzed outside of the EPA recommended holding time.

**H2**: The result was extracted outside of the EPA recommended holding time.

**H3**: The sample for this analyte was received outside of the EPA recommended holding time.

**J:** The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the EQL. One should feel confident that the result is greater than zero and less than the EQL. **For Florida DEP reports this qualifier is "I".**

**M**: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters MDL/RL has been raised.

**N:** The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

**P**: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

**Q**: The RPD and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

**S**: The associated internal standard failed criteria.

**U**: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

**X**: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

**Y**: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

**Z**: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

**LIMS Definitions / Naming Conventions:**
The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

**BLK**: LIMS assigns a unique identifier to the Method Blank by naming it as the letters BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

**BS**: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

**MS**: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

**IDs**: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE**" implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

**Statement of Data Authenticity:**
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 this Case Narrative, as verified by my signature below. During absences, Ms. Marcia K. McGinnity or an approved technical designee is authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

## ORGANIC CALCULATIONS

**GC/MS Volatiles**

$$\text{Final Concentration} = \frac{\text{On-column(ug/L or ug/Kg) * Expected Vol/Weight (mL or g) * Dilution}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

***Note - Expected Vol/Weight value is found in "Final Vol" column of Preparation Batch Summary.***

**GC/MS Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/uL) * Final Vol (ml) * Dilution *(1000uL/mL)}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g

= ug/L or ug/kg

**GC or LC Extractables**

$$\text{Final Concentration} = \frac{\text{On-column(ng/mL) * Final Vol (mL) * Dilution}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g

= ug/L or ug/kg

# HOLDING TIME SUMMARY

## SW8270D

Laboratory: Empirical Laboratories, LLC SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SO-122-4-6 | 03/27/12 08:10 | 03/28/12 08:20 | 03/29/12 14:14 | 2.25 | 14.00 | 04/06/12 07:02 | 7.70 | 40.00 | |
| 05-SO-123-4-6 | 03/27/12 08:35 | 03/28/12 08:20 | 03/29/12 14:14 | 2.24 | 14.00 | 04/06/12 07:30 | 7.72 | 40.00 | |
| 05-SO-124-4-6 | 03/27/12 08:25 | 03/28/12 08:20 | 03/29/12 14:14 | 2.24 | 14.00 | 04/06/12 07:57 | 7.74 | 40.00 | |
| 05-SO-125-4-6 | 03/27/12 08:45 | 03/28/12 08:20 | 03/29/12 14:14 | 2.23 | 14.00 | 04/06/12 08:26 | 7.76 | 40.00 | |
| 05-SO-126-0-2 | 03/27/12 09:00 | 03/28/12 08:20 | 03/30/12 13:53 | 3.20 | 14.00 | 04/06/12 20:09 | 7.26 | 40.00 | |
| 05-SO-126-4-6 | 03/27/12 09:10 | 03/28/12 08:20 | 03/30/12 13:53 | 3.20 | 14.00 | 04/06/12 21:33 | 7.32 | 40.00 | |
| 05-SO-127-0-2 | 03/27/12 09:20 | 03/28/12 08:20 | 03/30/12 13:53 | 3.19 | 14.00 | 04/06/12 22:01 | 7.34 | 40.00 | |
| 05-SO-127-4-6 | 03/27/12 09:30 | 03/28/12 08:20 | 03/30/12 13:53 | 3.18 | 14.00 | 04/06/12 22:29 | 7.36 | 40.00 | |
| 05-SO-128-0-2 | 03/27/12 09:35 | 03/28/12 08:20 | 03/30/12 13:53 | 3.18 | 14.00 | 04/07/12 01:37 | 7.49 | 40.00 | |
| 05-SO-128-4-6 | 03/27/12 09:40 | 03/28/12 08:20 | 03/30/12 13:53 | 3.18 | 14.00 | 04/07/12 02:04 | 7.51 | 40.00 | |
| 05-SO-129-0-2 | 03/27/12 09:45 | 03/28/12 08:20 | 03/30/12 13:53 | 3.17 | 14.00 | 04/07/12 02:32 | 7.53 | 40.00 | |
| 05-SO-129-4-6 | 03/27/12 09:50 | 03/28/12 08:20 | 03/30/12 13:53 | 3.17 | 14.00 | 04/06/12 22:56 | 7.38 | 40.00 | |
| 05-SO-130-0-2 | 03/27/12 10:05 | 03/28/12 08:20 | 03/30/12 13:53 | 3.16 | 14.00 | 04/07/12 03:00 | 7.55 | 40.00 | |
| 05-SO-130-4-6 | 03/27/12 10:10 | 03/28/12 08:20 | 03/30/12 13:53 | 3.15 | 14.00 | 04/06/12 23:24 | 7.40 | 40.00 | |
| 05-SO-131-0-2 | 03/27/12 09:55 | 03/28/12 08:20 | 03/30/12 13:53 | 3.17 | 14.00 | 04/07/12 03:27 | 7.57 | 40.00 | |
| 05-SO-131-4-6 | 03/27/12 10:00 | 03/28/12 08:20 | 03/30/12 13:53 | 3.16 | 14.00 | 04/06/12 23:52 | 7.42 | 40.00 | |
| FD-03-27-1201 | 03/27/12 00:01 | 03/28/12 08:20 | 03/30/12 13:53 | 3.58 | 14.00 | 04/07/12 01:09 | 7.47 | 40.00 | |
| FD-03-27-1202 | 03/27/12 00:01 | 03/28/12 08:20 | 03/30/12 13:53 | 3.58 | 14.00 | 04/07/12 03:55 | 7.58 | 40.00 | |
| FB-03-27-1201 | 03/27/12 00:01 | 03/28/12 08:20 | 04/02/12 14:43 | 6.61 | 7.00 | 04/05/12 09:36 | 2.79 | 40.00 | |

# ANALYSIS SEQUENCE SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2C09031 | Instrument: | MS-BNA4 |
| Calibration: | 2090005 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 2C09031-TUN1 | SEQ-TUN1.D | 03/29/12 16:31 |
| Cal Standard | 2C09031-CAL1 | SEQ-CAL1.D | 03/29/12 16:47 |
| Cal Standard | 2C09031-CAL2 | SEQ-CAL2.D | 03/29/12 17:15 |
| Cal Standard | 2C09031-CAL3 | SEQ-CAL3.D | 03/29/12 17:43 |
| Cal Standard | 2C09031-CAL4 | SEQ-CAL4.D | 03/29/12 18:11 |
| Cal Standard | 2C09031-CAL5 | SEQ-CAL5.D | 03/29/12 18:39 |
| Cal Standard | 2C09031-CAL6 | SEQ-CAL6.D | 03/29/12 19:06 |
| Cal Standard | 2C09031-CAL7 | SEQ-CAL7.D | 03/29/12 19:34 |
| MS Tune | 2C09031-TUN2 | SEQ-TUN1.D | 03/30/12 09:09 |
| Initial Cal Check | 2C09031-ICV1 | SEQ-ICV1.D | 03/30/12 09:26 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/29/12 |
| Instrument ID: | MS-BNA4 | Injection Time: | 16:31 |
| Sequence: | 2C09031 | Lab Sample ID: | 2C09031-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 47.1 | PASS |
| 68 | Less than 2% of 69 | 1.49 | PASS |
| 69 | Less than 200% of 198 | 41.1 | PASS |
| 70 | Less than 2% of 69 | 0.453 | PASS |
| 127 | 40 - 60% of 198 | 46.6 | PASS |
| 197 | Less than 1% of 198 | 0.911 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.67 | PASS |
| 275 | 10 - 30% of 198 | 23.2 | PASS |
| 365 | 1 - 200% of 198 | 2.88 | PASS |
| 441 | 0.001 - 100% of 443 | 81.8 | PASS |
| 442 | 40 - 200% of 198 | 88.3 | PASS |
| 443 | 17 - 23% of 442 | 19.5 | PASS |

# INITIAL CALIBRATION DATA (Continued)

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Calibration: | 2090005 | Instrument: | MS-BNA4 |
| Matrix: | Water | Calibration Dates: | 3/29/12 16:47 3/29/12 19:34 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 0.900025 | 10.81491 | 9.522286 | 3.121597E-02 | | | 15 | |
| Acenaphthylene | 1.299801 | 7.491228 | 9.290571 | 4.459042E-02 | | | 15 | |
| Anthracene | 1.085951 | 3.752423 | 11.36657 | 0.0697384 | | | 15 | |
| Benzo(a)anthracene | 0.7213317 | 8.208542 | 14.74629 | 2.575235E-02 | | | 15 | |
| Benzo(a)pyrene | 1.03145 | 3.994983 | 17.09314 | 4.101091E-02 | | | 15 | |
| Benzo(b)fluoranthene | 1.243667 | 4.508959 | 16.54457 | 4.674852E-02 | | | 15 | |
| Benzo(g,h,i)perylene | 0.8192619 | 10.32417 | 19.40957 | 0.054742 | | | 15 | |
| Benzo(k)fluoranthene | 1.357895 | 7.667419 | 16.58571 | 6.374105E-02 | | | 15 | |
| Chrysene | 0.7067705 | 8.138212 | 14.81271 | 2.585594E-02 | | | 15 | |
| Dibenz(a,h)anthracene | 0.7256853 | 8.632026 | 18.97243 | 3.389532E-02 | | | 15 | |
| Fluoranthene | 1.05935 | 4.465319 | 12.77829 | 4.059149E-02 | | | 15 | |
| Fluorene | 0.8702264 | 6.5243 | 10.13943 | 7.289645E-02 | | | 15 | |
| 2-Fluorobiphenyl | 1.029259 | 13.81841 | 8.649572 | 0.0509261 | | | 15 | |
| Indeno(1,2,3-cd)pyrene | 0.8916471 | 11.68302 | 18.95229 | 4.086237E-02 | | | 15 | |
| 1-Methylnaphthalene | 0.8785178 | 12.17405 | 8.296 | 5.580639E-02 | | | 15 | |
| 2-Methylnaphthalene | 0.910624 | 10.98214 | 8.163 | 2.469473E-02 | | | 15 | |
| Naphthalene | 1.529264 | 14.52021 | 7.290833 | 5.403793E-02 | | | 15 | |
| Phenanthrene | 1.130163 | 5.617765 | 11.31214 | 6.477658E-02 | | | 15 | |
| Pyrene | 1.063253 | 4.689799 | 13.05443 | 0.0218318 | | | 15 | |
| Terphenyl-d14 | 0.6105765 | 5.165702 | 13.25929 | 0.0144395 | | | 15 | |
| 2,4,6-Tribromophenol | | | | | | | 15 | |
| Naphthalene-d8 | | | | | | | 15 | |

# INITIAL CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 2090005 |
| Lab File ID: | SEQ-ICV1.D | Calibration Date: | 03/30/12 15:08 |
| Sequence: | 2C09031 | Injection Date: | 03/30/12 |
| Lab Sample ID: | 2C09031-ICV1 | Injection Time: | 09:26 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 5.221 | 0.900025 | 0.9397912 | | 4.4 | 20 |
| Acenaphthylene | A | 5.000 | 5.265 | 1.299801 | 1.368583 | | 5.3 | 20 |
| Anthracene | A | 5.000 | 5.118 | 1.085951 | 1.111555 | | 2.4 | 20 |
| Benzo(a)anthracene | A | 5.000 | 5.582 | 0.7213317 | 0.8052444 | | 11.6 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.302 | 1.03145 | 1.093734 | | 6.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.123 | 1.243667 | 1.274319 | | 2.5 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.719 | 0.8192619 | 0.9370725 | | 14.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.561 | 1.357895 | 1.510332 | | 11.2 | 20 |
| Chrysene | A | 5.000 | 5.721 | 0.7067705 | 0.8086637 | | 14.4 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.580 | 0.7256853 | 0.8097922 | | 11.6 | 20 |
| Fluoranthene | A | 5.000 | 5.259 | 1.05935 | 1.114161 | | 5.2 | 20 |
| Fluorene | A | 5.000 | 5.173 | 0.8702264 | 0.9003611 | | 3.5 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.854 | 0.8916471 | 1.043906 | | 17.1 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 5.204 | 0.8785178 | 0.914397 | | 4.1 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 5.200 | 0.910624 | 0.9470376 | | 4.0 | 20 |
| Naphthalene | A | 5.000 | 5.521 | 1.529264 | 1.688764 | | 10.4 | 20 |
| Phenanthrene | A | 5.000 | 5.261 | 1.130163 | 1.189219 | | 5.2 | 20 |
| Pyrene | A | 5.000 | 5.484 | 1.063253 | 1.166094 | | 9.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.902 | 1.029259 | 1.009118 | | -2.0 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.895 | 0.6105765 | 0.7198895 | | 17.9 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09605 | Instrument: | MS-BNA4 |
| Calibration: | 2090005 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 2D09605-TUN1 | SEQ-TUN2.D | 04/04/12 22:37 |
| Calibration Check | 2D09605-CCV1 | SEQ-CCV2.D | 04/04/12 22:53 |
| LCS | 2D02012-BS1 | D02012L1.D | 04/05/12 00:45 |
| LCS Dup | 2D02012-BSD1 | D02012L2.D | 04/05/12 01:13 |
| Blank | 2D02012-BLK1 | D02012B1.D | 04/05/12 01:41 |
| FB-03-27-1201 | 1203203-19 | 0320319.D | 04/05/12 09:36 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 03/30/12 |
| Instrument ID: | MS-BNA4 | Injection Time: | 09:09 |
| Sequence: | 2C09031 | Lab Sample ID: | 2C09031-TUN2 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 47.2 | PASS |
| 68 | Less than 2% of 69 | 1.69 | PASS |
| 69 | Less than 200% of 198 | 41.6 | PASS |
| 70 | Less than 2% of 69 | 0.505 | PASS |
| 127 | 40 - 60% of 198 | 46.9 | PASS |
| 197 | Less than 1% of 198 | 0.911 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.76 | PASS |
| 275 | 10 - 30% of 198 | 23.5 | PASS |
| 365 | 1 - 200% of 198 | 3 | PASS |
| 441 | 0.001 - 100% of 443 | 84.2 | PASS |
| 442 | 40 - 200% of 198 | 87.9 | PASS |
| 443 | 17 - 23% of 442 | 19.6 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 2090005 |
| Lab File ID: | SEQ-CCV2.D | Calibration Date: | 03/30/12 15:08 |
| Sequence: | 2D09605 | Injection Date: | 04/04/12 |
| Lab Sample ID: | 2D09605-CCV1 | Injection Time: | 22:53 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.604 | 0.900025 | 0.8287874 | | -7.9 | 20 |
| Acenaphthylene | A | 5.000 | 4.659 | 1.299801 | 1.211179 | | -6.8 | 20 |
| Anthracene | A | 5.000 | 4.802 | 1.085951 | 1.042988 | | -4.0 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.202 | 0.7213317 | 0.6062278 | | -16.0 | 20 |
| Benzo(a)pyrene | A | 5.000 | 5.016 | 1.03145 | 1.034696 | | 0.3 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.442 | 1.243667 | 1.353581 | | 8.8 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.691 | 0.8192619 | 0.7685761 | | -6.2 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.317 | 1.357895 | 1.444067 | | 6.3 | 20 |
| Chrysene | A | 5.000 | 4.346 | 0.7067705 | 0.6143084 | | -13.1 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.140 | 0.7256853 | 0.7460828 | | 2.8 | 20 |
| Fluoranthene | A | 5.000 | 5.187 | 1.05935 | 1.099037 | | 3.7 | 20 |
| Fluorene | A | 5.000 | 4.794 | 0.8702264 | 0.8343607 | | -4.1 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.126 | 0.8916471 | 0.9141857 | | 2.5 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.392 | 0.8785178 | 0.7716417 | | -12.2 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.451 | 0.910624 | 0.8106904 | | -11.0 | 20 |
| Naphthalene | A | 5.000 | 4.158 | 1.529264 | 1.271585 | | -16.8 | 20 |
| Phenanthrene | A | 5.000 | 4.806 | 1.130163 | 1.086275 | | -3.9 | 20 |
| Pyrene | A | 5.000 | 5.083 | 1.063253 | 1.080936 | | 1.7 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.389 | 1.029259 | 0.9034462 | | -12.2 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.271 | 0.6105765 | 0.6436462 | | 5.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09703 | Instrument: | MS-BNA4 |
| Calibration: | 2090005 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 2D09703-TUN1 | SEQ-TUN1.D | 04/05/12 10:39 |
| Calibration Check | 2D09703-CCV1 | SEQ-CCV1.D | 04/05/12 10:56 |
| Blank | 2C29006-BLK2 | C29006B2.D | 04/05/12 19:51 |
| LCS | 2C29006-BS2 | C29006LS2.D | 04/05/12 20:19 |
| LCS Dup | 2C29006-BSD2 | C29006LD2.D | 04/05/12 20:47 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/04/12 |
| Instrument ID: | MS-BNA4 | Injection Time: | 22:37 |
| Sequence: | 2D09605 | Lab Sample ID: | 2D09605-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 40.7 | PASS |
| 68 | Less than 2% of 69 | 1.64 | PASS |
| 69 | Less than 200% of 198 | 37 | PASS |
| 70 | Less than 2% of 69 | 0.493 | PASS |
| 127 | 40 - 60% of 198 | 44.6 | PASS |
| 197 | Less than 1% of 198 | 0.826 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.78 | PASS |
| 275 | 10 - 30% of 198 | 24.1 | PASS |
| 365 | 1 - 200% of 198 | 3.02 | PASS |
| 441 | 0.001 - 100% of 443 | 82.8 | PASS |
| 442 | 40 - 200% of 198 | 96.2 | PASS |
| 443 | 17 - 23% of 442 | 19.5 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 2090005 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 03/30/12 15:08 |
| Sequence: | 2D09703 | Injection Date: | 04/05/12 |
| Lab Sample ID: | 2D09703-CCV1 | Injection Time: | 10:56 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.829 | 0.900025 | 0.8692637 | | -3.4 | 20 |
| Acenaphthylene | A | 5.000 | 4.809 | 1.299801 | 1.250167 | | -3.8 | 20 |
| Anthracene | A | 5.000 | 4.730 | 1.085951 | 1.027313 | | -5.4 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.457 | 0.7213317 | 0.6429688 | | -10.9 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.814 | 1.03145 | 0.9930317 | | -3.7 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.139 | 1.243667 | 1.278265 | | 2.8 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 4.527 | 0.8192619 | 0.7417637 | | -9.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.134 | 1.357895 | 1.394319 | | 2.7 | 20 |
| Chrysene | A | 5.000 | 4.506 | 0.7067705 | 0.6370137 | | -9.9 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.826 | 0.7256853 | 0.7004781 | | -3.5 | 20 |
| Fluoranthene | A | 5.000 | 5.302 | 1.05935 | 1.123321 | | 6.0 | 20 |
| Fluorene | A | 5.000 | 4.817 | 0.8702264 | 0.8384537 | | -3.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 4.772 | 0.8916471 | 0.8510111 | | -4.6 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.684 | 0.8785178 | 0.8231005 | | -6.3 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.721 | 0.910624 | 0.8598715 | | -5.6 | 20 |
| Naphthalene | A | 5.000 | 4.329 | 1.529264 | 1.324103 | | -13.4 | 20 |
| Phenanthrene | A | 5.000 | 4.792 | 1.130163 | 1.083235 | | -4.2 | 20 |
| Pyrene | A | 5.000 | 5.277 | 1.063253 | 1.122182 | | 5.5 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.722 | 1.029259 | 0.9719687 | | -5.6 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.218 | 0.6105765 | 0.6371708 | | 4.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09704 | Instrument: | MS-BNA4 |
| Calibration: | 2090005 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 2D09704-TUN1 | SEQ-TUN2.D | 04/05/12 23:13 |
| Calibration Check | 2D09704-CCV1 | SEQ-CCV2.D | 04/05/12 23:34 |
| 05-SO-122-4-6 | 1203203-01 | 0320301.D | 04/06/12 07:02 |
| 05-SO-123-4-6 | 1203203-02 | 0320302.D | 04/06/12 07:30 |
| 05-SO-124-4-6 | 1203203-03 | 0320303.D | 04/06/12 07:57 |
| 05-SO-125-4-6 | 1203203-04 | 0320304.D | 04/06/12 08:26 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/05/12 |
| Instrument ID: | MS-BNA4 | Injection Time: | 10:39 |
| Sequence: | 2D09703 | Lab Sample ID: | 2D09703-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 40.8 | PASS |
| 68 | Less than 2% of 69 | 1.62 | PASS |
| 69 | Less than 200% of 198 | 37.1 | PASS |
| 70 | Less than 2% of 69 | 0.479 | PASS |
| 127 | 40 - 60% of 198 | 44.8 | PASS |
| 197 | Less than 1% of 198 | 0.798 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.82 | PASS |
| 275 | 10 - 30% of 198 | 23.9 | PASS |
| 365 | 1 - 200% of 198 | 3.03 | PASS |
| 441 | 0.001 - 100% of 443 | 81.3 | PASS |
| 442 | 40 - 200% of 198 | 96.2 | PASS |
| 443 | 17 - 23% of 442 | 19.7 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 2090005 |
| Lab File ID: | SEQ-CCV2.D | Calibration Date: | 03/30/12 15:08 |
| Sequence: | 2D09704 | Injection Date: | 04/05/12 |
| Lab Sample ID: | 2D09704-CCV1 | Injection Time: | 23:34 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.884 | 0.900025 | 0.8792276 | | -2.3 | 20 |
| Acenaphthylene | A | 5.000 | 5.050 | 1.299801 | 1.312862 | | 1.0 | 20 |
| Anthracene | A | 5.000 | 5.187 | 1.085951 | 1.126643 | | 3.7 | 20 |
| Benzo(a)anthracene | A | 5.000 | 3.847 | 0.7213317 | 0.5550014 | | -23.1 | 20 * |
| Benzo(a)pyrene | A | 5.000 | 5.057 | 1.03145 | 1.043263 | | 1.1 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.151 | 1.243667 | 1.281239 | | 3.0 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.019 | 0.8192619 | 0.8223656 | | 0.4 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 5.239 | 1.357895 | 1.422894 | | 4.8 | 20 |
| Chrysene | A | 5.000 | 4.026 | 0.7067705 | 0.5691423 | | -19.5 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.196 | 0.7256853 | 0.7541818 | | 3.9 | 20 |
| Fluoranthene | A | 5.000 | 5.162 | 1.05935 | 1.093713 | | 3.2 | 20 |
| Fluorene | A | 5.000 | 4.966 | 0.8702264 | 0.8642678 | | -0.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.267 | 0.8916471 | 0.9392798 | | 5.3 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.747 | 0.8785178 | 0.8340694 | | -5.1 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.990 | 0.910624 | 0.9088102 | | -0.2 | 20 |
| Naphthalene | A | 5.000 | 4.751 | 1.529264 | 1.453189 | | -5.0 | 20 |
| Phenanthrene | A | 5.000 | 4.976 | 1.130163 | 1.12478 | | -0.5 | 20 |
| Pyrene | A | 5.000 | 5.152 | 1.063253 | 1.095561 | | 3.0 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.814 | 1.029259 | 0.9909717 | | -3.7 | 20 |
| Terphenyl-d14 | A | 5.000 | 4.917 | 0.6105765 | 0.6004987 | | -1.7 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09801 | Instrument: | MS-BNA4 |
| Calibration: | 2090005 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 2D09801-TUN1 | SEQ-TUN2.D | 04/07/12 00:25 |
| Calibration Check | 2D09801-CCV1 | SEQ-CCV2.D | 04/07/12 00:41 |
| FD-03-27-1201 | 1203203-17 | 0320317.D | 04/07/12 01:09 |
| 05-SO-128-0-2 | 1203203-09 | 0320309.D | 04/07/12 01:37 |
| 05-SO-128-4-6 | 1203203-10 | 0320310.D | 04/07/12 02:04 |
| 05-SO-129-0-2 | 1203203-11 | 0320311.D | 04/07/12 02:32 |
| 05-SO-130-0-2 | 1203203-13 | 0320313.D | 04/07/12 03:00 |
| 05-SO-131-0-2 | 1203203-15 | 0320315.D | 04/07/12 03:27 |
| FD-03-27-1202 | 1203203-18 | 0320318.D | 04/07/12 03:55 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/05/12 |
| Instrument ID: | MS-BNA4 | Injection Time: | 23:13 |
| Sequence: | 2D09704 | Lab Sample ID: | 2D09704-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 41.7 | PASS |
| 68 | Less than 2% of 69 | 1.58 | PASS |
| 69 | Less than 200% of 198 | 37.9 | PASS |
| 70 | Less than 2% of 69 | 0.438 | PASS |
| 127 | 40 - 60% of 198 | 44.9 | PASS |
| 197 | Less than 1% of 198 | 0.805 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.86 | PASS |
| 275 | 10 - 30% of 198 | 23.9 | PASS |
| 365 | 1 - 200% of 198 | 2.83 | PASS |
| 441 | 0.001 - 100% of 443 | 81.4 | PASS |
| 442 | 40 - 200% of 198 | 94.9 | PASS |
| 443 | 17 - 23% of 442 | 19.3 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 2090005 |
| Lab File ID: | SEQ-CCV2.D | Calibration Date: | 03/30/12 15:08 |
| Sequence: | 2D09801 | Injection Date: | 04/07/12 |
| Lab Sample ID: | 2D09801-CCV1 | Injection Time: | 00:41 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.432 | 0.900025 | 0.7977948 | | -11.4 | 20 |
| Acenaphthylene | A | 5.000 | 4.630 | 1.299801 | 1.203748 | | -7.4 | 20 |
| Anthracene | A | 5.000 | 4.888 | 1.085951 | 1.061719 | | -2.2 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.730 | 0.7213317 | 0.6824648 | | -5.4 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.808 | 1.03145 | 0.9917963 | | -3.8 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.324 | 1.243667 | 1.3244 | | 6.5 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.074 | 0.8192619 | 0.8313646 | | 1.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.738 | 1.357895 | 1.286671 | | -5.2 | 20 |
| Chrysene | A | 5.000 | 4.733 | 0.7067705 | 0.6690084 | | -5.3 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.833 | 0.7256853 | 0.7014959 | | -3.3 | 20 |
| Fluoranthene | A | 5.000 | 5.376 | 1.05935 | 1.13891 | | 7.5 | 20 |
| Fluorene | A | 5.000 | 4.850 | 0.8702264 | 0.8441285 | | -3.0 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.046 | 0.8916471 | 0.8998313 | | 0.9 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.337 | 0.8785178 | 0.762068 | | -13.3 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.462 | 0.910624 | 0.8126418 | | -10.8 | 20 |
| Naphthalene | A | 5.000 | 4.025 | 1.529264 | 1.231172 | | -19.5 | 20 |
| Phenanthrene | A | 5.000 | 4.873 | 1.130163 | 1.101414 | | -2.5 | 20 |
| Pyrene | A | 5.000 | 5.259 | 1.063253 | 1.118254 | | 5.2 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.435 | 1.029259 | 0.9130464 | | -11.3 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.424 | 0.6105765 | 0.6623428 | | 8.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D10108 | Instrument: | MS-BNA4 |
| Calibration: | 2090005 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| MS Tune | 2D10108-TUN1 | SEQ-TUN1.D | 04/06/12 12:19 |
| Calibration Check | 2D10108-CCV1 | SEQ-CCV1.D | 04/06/12 12:37 |
| Blank | 2C30006-BLK1 | C30006B1.D | 04/06/12 19:13 |
| LCS | 2C30006-BS1 | C30006L1.D | 04/06/12 19:41 |
| 05-SO-126-0-2 | 1203203-05 | 0320305.D | 04/06/12 20:09 |
| 05-SO-126-0-2 | 2C30006-MS1 | 0320305M.D | 04/06/12 20:37 |
| 05-SO-126-0-2 | 2C30006-MSD1 | 0320305S.D | 04/06/12 21:05 |
| 05-SO-126-4-6 | 1203203-06 | 0320306.D | 04/06/12 21:33 |
| 05-SO-127-0-2 | 1203203-07 | 0320307.D | 04/06/12 22:01 |
| 05-SO-127-4-6 | 1203203-08 | 0320308.D | 04/06/12 22:29 |
| 05-SO-129-4-6 | 1203203-12 | 0320312.D | 04/06/12 22:56 |
| 05-SO-130-4-6 | 1203203-14 | 0320314.D | 04/06/12 23:24 |
| 05-SO-131-4-6 | 1203203-16 | 0320316.D | 04/06/12 23:52 |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN2.D | Injection Date: | 04/07/12 |
| Instrument ID: | MS-BNA4 | Injection Time: | 00:25 |
| Sequence: | 2D09801 | Lab Sample ID: | 2D09801-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 41.2 | PASS |
| 68 | Less than 2% of 69 | 1.66 | PASS |
| 69 | Less than 200% of 198 | 38.7 | PASS |
| 70 | Less than 2% of 69 | 0.55 | PASS |
| 127 | 40 - 60% of 198 | 44.5 | PASS |
| 197 | Less than 1% of 198 | 0.712 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 6.78 | PASS |
| 275 | 10 - 30% of 198 | 24.6 | PASS |
| 365 | 1 - 200% of 198 | 3.11 | PASS |
| 441 | 0.001 - 100% of 443 | 82 | PASS |
| 442 | 40 - 200% of 198 | 98.4 | PASS |
| 443 | 17 - 23% of 442 | 19.4 | PASS |

# MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Lab File ID: | SEQ-TUN1.D | Injection Date: | 04/06/12 |
| Instrument ID: | MS-BNA4 | Injection Time: | 12:19 |
| Sequence: | 2D10108 | Lab Sample ID: | 2D10108-TUN1 |

| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 51 | 30 - 60% of 198 | 52.5 | PASS |
| 68 | Less than 2% of 69 | 1.63 | PASS |
| 69 | Less than 200% of 198 | 46.8 | PASS |
| 70 | Less than 2% of 69 | 0.421 | PASS |
| 127 | 40 - 60% of 198 | 50.7 | PASS |
| 197 | Less than 1% of 198 | 0.819 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7 | PASS |
| 275 | 10 - 30% of 198 | 19.6 | PASS |
| 365 | 1 - 200% of 198 | 1.93 | PASS |
| 441 | 0.001 - 100% of 443 | 81.2 | PASS |
| 442 | 40 - 200% of 198 | 40.8 | PASS |
| 443 | 17 - 23% of 442 | 20 | PASS |

# CONTINUING CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 2090005 |
| Lab File ID: | SEQ-CCV1.D | Calibration Date: | 03/30/12 15:08 |
| Sequence: | 2D10108 | Injection Date: | 04/06/12 |
| Lab Sample ID: | 2D10108-CCV1 | Injection Time: | 12:37 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.739 | 0.900025 | 0.8531256 | | -5.2 | 20 |
| Acenaphthylene | A | 5.000 | 4.708 | 1.299801 | 1.223821 | | -5.8 | 20 |
| Anthracene | A | 5.000 | 4.780 | 1.085951 | 1.038168 | | -4.4 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.226 | 0.7213317 | 0.6096699 | | -15.5 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.951 | 1.03145 | 1.021435 | | -1.0 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.189 | 1.243667 | 1.290599 | | 3.8 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.125 | 0.8192619 | 0.839749 | | 2.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.623 | 1.357895 | 1.255401 | | -7.5 | 20 |
| Chrysene | A | 5.000 | 4.134 | 0.7067705 | 0.5843277 | | -17.3 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 5.296 | 0.7256853 | 0.76864 | | 5.9 | 20 |
| Fluoranthene | A | 5.000 | 4.830 | 1.05935 | 1.023419 | | -3.4 | 20 |
| Fluorene | A | 5.000 | 4.867 | 0.8702264 | 0.8471097 | | -2.7 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.387 | 0.8916471 | 0.9606756 | | 7.7 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.611 | 0.8785178 | 0.8102147 | | -7.8 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.603 | 0.910624 | 0.838385 | | -7.9 | 20 |
| Naphthalene | A | 5.000 | 4.140 | 1.529264 | 1.26622 | | -17.2 | 20 |
| Phenanthrene | A | 5.000 | 4.855 | 1.130163 | 1.097426 | | -2.9 | 20 |
| Pyrene | A | 5.000 | 4.846 | 1.063253 | 1.03044 | | -3.1 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.548 | 1.029259 | 0.9362479 | | -9.0 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.118 | 0.6105765 | 0.625038 | | 2.4 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BATCH SUMMARY

## SW8270D

Laboratory: Empirical Laboratories, LLC SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 2D02012 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| FB-03-27-1201 | 1203203-19 | 04/02/12 14:43 | 1,040.00 | 1.00 |
| Blank | 2D02012-BLK1 | 04/02/12 14:43 | 1,000.00 | 1.00 |
| LCS | 2D02012-BS1 | 04/02/12 14:43 | 1,000.00 | 1.00 |
| LCS Dup | 2D02012-BSD1 | 04/02/12 14:43 | 1,000.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1203203 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | | Laboratory ID: | 2D02012-BLK1 | File ID: | D02012B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/05/12 01:41 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 2D02012 Sequence: 2D09605 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | CONC. (ug/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 0.0500 | 0.100 | 0.200 | U |
| 208-96-8 | Acenaphthylene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 120-12-7 | Anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 56-55-3 | Benzo(a)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 50-32-8 | Benzo(a)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 0.0500 | 0.100 | 0.200 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 218-01-9 | Chrysene | | 0.0500 | 0.100 | 0.200 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 0.0500 | 0.100 | 0.200 | U |
| 206-44-0 | Fluoranthene | | 0.0500 | 0.100 | 0.200 | U |
| 86-73-7 | Fluorene | | 0.0500 | 0.100 | 0.200 | Q, U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 0.0500 | 0.100 | 0.200 | U |
| 90-12-0 | 1-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-57-6 | 2-Methylnaphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 91-20-3 | Naphthalene | | 0.0500 | 0.100 | 0.200 | U |
| 85-01-8 | Phenanthrene | | 0.100 | 0.200 | 0.400 | U |
| 129-00-0 | Pyrene | | 0.0500 | 0.100 | 0.200 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/L) | CONC (ug/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 50.00 | 37.77 | 75.5 | 34 - 167 | |
| Terphenyl-d14 | 50.00 | 53.90 | 108 | 34 - 167 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Water | | |
| Batch: | 2D02012 | Laboratory ID: | 2D02012-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 0.9800 | 0.6314 | 64.4 | 41 - 132 |
| Acenaphthylene | 0.9800 | 0.6223 | 63.5 | 43 - 140 |
| Anthracene | 0.9800 | 0.7736 | 78.9 | 50 - 139 |
| Benzo(a)anthracene | 0.9800 | 0.7433 | 75.8 | 58 - 141 |
| Benzo(a)pyrene | 0.9800 | 0.8636 | 88.1 | 31 - 142 |
| Benzo(b)fluoranthene | 0.9800 | 1.005 | 103 | 42 - 156 |
| Benzo(g,h,i)perylene | 0.9800 | 0.8542 | 87.2 | 12 - 171 |
| Benzo(k)fluoranthene | 0.9800 | 0.9591 | 97.9 | 49 - 165 |
| Chrysene | 0.9800 | 0.7970 | 81.3 | 51 - 155 |
| Dibenz(a,h)anthracene | 0.9800 | 0.9434 | 96.3 | 28 - 153 |
| Fluoranthene | 0.9800 | 0.9223 | 94.1 | 47 - 158 |
| Fluorene | 0.9800 | 0.6690 | 68.3 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 0.9800 | 0.9082 | 92.7 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.6305 | 63.0 | 35 - 131 |
| 2-Methylnaphthalene | 0.9800 | 0.6496 | 66.3 | 36 - 121 |
| Naphthalene | 0.9800 | 0.6034 | 61.6 | 39 - 125 |
| Phenanthrene | 0.9800 | 0.8292 | 84.6 | 46 - 144 |
| Pyrene | 0.9800 | 0.9212 | 94.0 | 39 - 158 |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 0.9800 | 0.8337 | 85.1 | 27.6 | 30 | 41 - 132 |
| Acenaphthylene | 0.9800 | 0.8452 | 86.2 | 30.4 * | 30 | 43 - 140 |
| Anthracene | 0.9800 | 0.9528 | 97.2 | 20.8 | 30 | 50 - 139 |
| Benzo(a)anthracene | 0.9800 | 0.8405 | 85.8 | 12.3 | 30 | 58 - 141 |
| Benzo(a)pyrene | 0.9800 | 0.9467 | 96.6 | 9.18 | 30 | 31 - 142 |
| Benzo(b)fluoranthene | 0.9800 | 1.018 | 104 | 1.34 | 30 | 42 - 156 |
| Benzo(g,h,i)perylene | 0.9800 | 0.9720 | 99.2 | 12.9 | 30 | 12 - 171 |
| Benzo(k)fluoranthene | 0.9800 | 1.027 | 105 | 6.83 | 30 | 49 - 165 |
| Chrysene | 0.9800 | 0.9058 | 92.4 | 12.8 | 30 | 51 - 155 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Water | | |
| Batch: | 2D02012 | Laboratory ID: | 2D02012-BSD1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 1 mL |

| ANALYTE | SPIKE ADDED (ug/L) | LCSD CONCENTRATION (ug/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 0.9800 | 0.9710 | 99.1 | 2.89 | 30 | 28 - 153 |
| Fluoranthene | 0.9800 | 1.041 | 106 | 12.1 | 30 | 47 - 158 |
| Fluorene | 0.9800 | 0.9114 | 93.0 | 30.7 * | 30 | 40 - 140 |
| Indeno(1,2,3-cd)pyrene | 0.9800 | 1.061 | 108 | 15.5 | 30 | 20 - 167 |
| 1-Methylnaphthalene | 1.000 | 0.8072 | 80.7 | 24.6 | 30 | 35 - 131 |
| 2-Methylnaphthalene | 0.9800 | 0.7806 | 79.7 | 18.3 | 30 | 36 - 121 |
| Naphthalene | 0.9800 | 0.7578 | 77.3 | 22.7 | 30 | 39 - 125 |
| Phenanthrene | 0.9800 | 1.038 | 106 | 22.4 | 30 | 46 - 144 |
| Pyrene | 0.9800 | 1.059 | 108 | 13.9 | 30 | 39 - 158 |

# PREPARATION BATCH SUMMARY

## SW8270D

Laboratory: Empirical Laboratories, LLC SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 2C29006 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SO-122-4-6 | 1203203-01 | 03/29/12 14:14 | 15.10 | 1.00 |
| 05-SO-123-4-6 | 1203203-02 | 03/29/12 14:14 | 15.20 | 1.00 |
| 05-SO-124-4-6 | 1203203-03 | 03/29/12 14:14 | 15.30 | 1.00 |
| 05-SO-125-4-6 | 1203203-04 | 03/29/12 14:14 | 15.20 | 1.00 |
| Blank | 2C29006-BLK2 | 03/29/12 14:14 | 15.00 | 1.00 |
| LCS | 2C29006-BS2 | 03/29/12 14:14 | 15.00 | 1.00 |
| LCS Dup | 2C29006-BSD2 | 03/29/12 14:14 | 15.00 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1203203 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | | Laboratory ID: | 2C29006-BLK2 | File ID: | C29006B2.D |
| Sampled: | | Prepared: | | Analyzed: | 04/05/12 19:51 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 2C29006 Sequence: 2D09703 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (ug/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.67 | 3.33 | 6.67 | U |
| 208-96-8 | Acenaphthylene | | 1.67 | 3.33 | 6.67 | U |
| 120-12-7 | Anthracene | | 1.67 | 3.33 | 6.67 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.67 | 3.33 | 6.67 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.67 | 3.33 | 6.67 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.67 | 3.33 | 6.67 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 218-01-9 | Chrysene | | 1.67 | 3.33 | 6.67 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.67 | 3.33 | 6.67 | U |
| 206-44-0 | Fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 86-73-7 | Fluorene | | 1.67 | 3.33 | 6.67 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.67 | 3.33 | 6.67 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.67 | 3.33 | 6.67 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.67 | 3.33 | 6.67 | U |
| 91-20-3 | Naphthalene | | 1.67 | 3.33 | 6.67 | U |
| 85-01-8 | Phenanthrene | | 1.67 | 3.33 | 6.67 | U |
| 129-00-0 | Pyrene | | 1.67 | 3.33 | 6.67 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg wet) | CONC (ug/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3333 | 2433 | 73.0 | 14 - 129 | |
| Terphenyl-d14 | 3333 | 3169 | 95.1 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Solid | | |
| Batch: | 2C29006 | Laboratory ID: | 2C29006-BS2 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (ug/Kg wet) | LCS CONCENTRATION (ug/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 65.33 | 54.65 | 83.7 | 28 - 110 |
| Acenaphthylene | 65.33 | 51.94 | 79.5 | 23 - 126 |
| Anthracene | 65.33 | 57.35 | 87.8 | 28 - 136 |
| Benzo(a)anthracene | 65.33 | 44.74 | 68.5 | 31 - 146 |
| Benzo(a)pyrene | 65.33 | 55.94 | 85.6 | 28 - 128 |
| Benzo(b)fluoranthene | 65.33 | 53.75 | 82.3 | 30 - 139 |
| Benzo(g,h,i)perylene | 65.33 | 52.33 | 80.1 | 21 - 149 |
| Benzo(k)fluoranthene | 65.33 | 67.04 | 103 | 42 - 129 |
| Chrysene | 65.33 | 50.14 | 76.8 | 39 - 134 |
| Dibenz(a,h)anthracene | 65.33 | 57.27 | 87.7 | 30 - 138 |
| Fluoranthene | 65.33 | 58.88 | 90.1 | 30 - 142 |
| Fluorene | 65.33 | 58.77 | 90.0 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 65.33 | 49.21 | 75.3 | 17 - 164 |
| 1-Methylnaphthalene | 66.67 | 59.01 | 88.5 | 30 - 111 |
| 2-Methylnaphthalene | 65.33 | 55.78 | 85.4 | 30 - 111 |
| Naphthalene | 65.33 | 51.41 | 78.7 | 29 - 106 |
| Phenanthrene | 65.33 | 59.62 | 91.3 | 32 - 127 |
| Pyrene | 65.33 | 60.41 | 92.5 | 28 - 130 |

| ANALYTE | SPIKE ADDED (ug/Kg wet) | LCSD CONCENTRATION (ug/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 65.33 | 59.28 | 90.7 | 8.12 | 30 | 28 - 110 |
| Acenaphthylene | 65.33 | 57.97 | 88.7 | 11.0 | 30 | 23 - 126 |
| Anthracene | 65.33 | 57.97 | 88.7 | 1.08 | 30 | 28 - 136 |
| Benzo(a)anthracene | 65.33 | 43.71 | 66.9 | 2.35 | 30 | 31 - 146 |
| Benzo(a)pyrene | 65.33 | 50.51 | 77.3 | 10.2 | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 65.33 | 45.86 | 70.2 | 15.9 | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 65.33 | 61.24 | 93.7 | 15.7 | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 65.33 | 57.12 | 87.4 | 16.0 | 30 | 42 - 129 |
| Chrysene | 65.33 | 51.69 | 79.1 | 3.03 | 30 | 39 - 134 |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Solid | | |
| Batch: | 2C29006 | Laboratory ID: | 2C29006-BSD2 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (ug/Kg wet) | LCSD CONCENTRATION (ug/Kg wet) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Dibenz(a,h)anthracene | 65.33 | 54.78 | 83.9 | 4.45 | 30 | 30 - 138 |
| Fluoranthene | 65.33 | 57.53 | 88.1 | 2.32 | 30 | 30 - 142 |
| Fluorene | 65.33 | 61.13 | 93.6 | 3.93 | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 65.33 | 60.82 | 93.1 | 21.1 | 30 | 17 - 164 |
| 1-Methylnaphthalene | 66.67 | 64.71 | 97.1 | 9.22 | 30 | 30 - 111 |
| 2-Methylnaphthalene | 65.33 | 62.21 | 95.2 | 10.9 | 30 | 30 - 111 |
| Naphthalene | 65.33 | 56.85 | 87.0 | 10.1 | 30 | 29 - 106 |
| Phenanthrene | 65.33 | 58.84 | 90.1 | 1.31 | 30 | 32 - 127 |
| Pyrene | 65.33 | 57.38 | 87.8 | 5.15 | 30 | 28 - 130 |

# PREPARATION BATCH SUMMARY

## SW8270D

Laboratory: Empirical Laboratories, LLC SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 2C30006 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SO-126-0-2 | 1203203-05 | 03/30/12 13:53 | 15.50 | 1.00 |
| 05-SO-126-4-6 | 1203203-06 | 03/30/12 13:53 | 15.10 | 1.00 |
| 05-SO-127-0-2 | 1203203-07 | 03/30/12 13:53 | 15.20 | 1.00 |
| 05-SO-127-4-6 | 1203203-08 | 03/30/12 13:53 | 15.00 | 1.00 |
| 05-SO-128-0-2 | 1203203-09 | 03/30/12 13:53 | 15.30 | 1.00 |
| 05-SO-128-4-6 | 1203203-10 | 03/30/12 13:53 | 15.20 | 1.00 |
| 05-SO-129-0-2 | 1203203-11 | 03/30/12 13:53 | 15.60 | 1.00 |
| 05-SO-129-4-6 | 1203203-12 | 03/30/12 13:53 | 15.00 | 1.00 |
| 05-SO-130-0-2 | 1203203-13 | 03/30/12 13:53 | 15.40 | 1.00 |
| 05-SO-130-4-6 | 1203203-14 | 03/30/12 13:53 | 15.80 | 1.00 |
| 05-SO-131-0-2 | 1203203-15 | 03/30/12 13:53 | 15.40 | 1.00 |
| 05-SO-131-4-6 | 1203203-16 | 03/30/12 13:53 | 15.00 | 1.00 |
| FD-03-27-1201 | 1203203-17 | 03/30/12 13:53 | 15.30 | 1.00 |
| FD-03-27-1202 | 1203203-18 | 03/30/12 13:53 | 15.50 | 1.00 |
| Blank | 2C30006-BLK1 | 03/30/12 13:53 | 15.00 | 1.00 |
| LCS | 2C30006-BS1 | 03/30/12 13:53 | 15.00 | 1.00 |
| 05-SO-126-0-2 | 2C30006-MS1 | 03/30/12 13:53 | 15.50 | 1.00 |
| 05-SO-126-0-2 | 2C30006-MSD1 | 03/30/12 13:53 | 15.60 | 1.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1203203 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | | Laboratory ID: | 2C30006-BLK1 | File ID: | C30006B1.D |
| Sampled: | | Prepared: | | Analyzed: | 04/06/12 19:13 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 2C30006 Sequence: 2D10108 Calibration: 2090005 Instrument: MS-BNA4

| CAS NO. | COMPOUND | ONC. (ug/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| 83-32-9 | Acenaphthene | | 1.67 | 3.33 | 6.67 | U |
| 208-96-8 | Acenaphthylene | | 1.67 | 3.33 | 6.67 | U |
| 120-12-7 | Anthracene | | 1.67 | 3.33 | 6.67 | U |
| 56-55-3 | Benzo(a)anthracene | | 1.67 | 3.33 | 6.67 | U |
| 50-32-8 | Benzo(a)pyrene | | 1.67 | 3.33 | 6.67 | U |
| 205-99-2 | Benzo(b)fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 191-24-2 | Benzo(g,h,i)perylene | | 1.67 | 3.33 | 6.67 | U |
| 207-08-9 | Benzo(k)fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 218-01-9 | Chrysene | | 1.67 | 3.33 | 6.67 | U |
| 53-70-3 | Dibenz(a,h)anthracene | | 1.67 | 3.33 | 6.67 | U |
| 206-44-0 | Fluoranthene | | 1.67 | 3.33 | 6.67 | U |
| 86-73-7 | Fluorene | | 1.67 | 3.33 | 6.67 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | | 1.67 | 3.33 | 6.67 | U |
| 90-12-0 | 1-Methylnaphthalene | | 1.67 | 3.33 | 6.67 | U |
| 91-57-6 | 2-Methylnaphthalene | | 1.67 | 3.33 | 6.67 | U |
| 91-20-3 | Naphthalene | | 1.67 | 3.33 | 6.67 | U |
| 85-01-8 | Phenanthrene | | 1.67 | 3.33 | 6.67 | U |
| 129-00-0 | Pyrene | | 1.67 | 3.33 | 6.67 | U |

| SYSTEM MONITORING COMPOUND | ADDED (ug/Kg wet) | CONC (ug/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3333 | 2733 | 82.0 | 14 - 129 | |
| Terphenyl-d14 | 3333 | 3828 | 115 | 14 - 129 | |

# LCS / LCS DUPLICATE RECOVERY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Solid | | |
| Batch: | 2C30006 | Laboratory ID: | 2C30006-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 1 mL |

| ANALYTE | SPIKE ADDED (ug/Kg wet) | LCS CONCENTRATION (ug/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Acenaphthene | 65.33 | 47.28 | 72.4 | 28 - 110 |
| Acenaphthylene | 65.33 | 46.39 | 71.0 | 23 - 126 |
| Anthracene | 65.33 | 52.51 | 80.4 | 28 - 136 |
| Benzo(a)anthracene | 65.33 | 42.67 | 65.3 | 31 - 146 |
| Benzo(a)pyrene | 65.33 | 48.60 | 74.4 | 28 - 128 |
| Benzo(b)fluoranthene | 65.33 | 53.87 | 82.5 | 30 - 139 |
| Benzo(g,h,i)perylene | 65.33 | 57.94 | 88.7 | 21 - 149 |
| Benzo(k)fluoranthene | 65.33 | 51.47 | 78.8 | 42 - 129 |
| Chrysene | 65.33 | 46.47 | 71.1 | 39 - 134 |
| Dibenz(a,h)anthracene | 65.33 | 53.45 | 81.8 | 30 - 138 |
| Fluoranthene | 65.33 | 54.49 | 83.4 | 30 - 142 |
| Fluorene | 65.33 | 50.30 | 77.0 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 65.33 | 55.27 | 84.6 | 17 - 164 |
| 1-Methylnaphthalene | 66.67 | 47.63 | 71.4 | 30 - 111 |
| 2-Methylnaphthalene | 65.33 | 45.18 | 69.1 | 30 - 111 |
| Naphthalene | 65.33 | 44.37 | 67.9 | 29 - 106 |
| Phenanthrene | 65.33 | 52.98 | 81.1 | 32 - 127 |
| Pyrene | 65.33 | 55.23 | 84.5 | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270D

**05-SO-126-0-2**

Laboratory: Empirical Laboratories, LLC

SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTOJM26 Saufley 2011

Matrix: Solid

Batch: 2C30006

% Solids: 94.18

Source Sample Name: **1203203-05**

| ANALYTE | SPIKE ADDED (ug/Kg dry) | SAMPLE CONCENTRATION (ug/Kg dry) | MS CONCENTRATION (ug/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Acenaphthene | 67.13 | ND | 48.11 | 71.7 | | 28 - 110 |
| Acenaphthylene | 67.13 | ND | 47.02 | 70.0 | | 23 - 126 |
| Anthracene | 67.13 | ND | 49.97 | 74.4 | | 28 - 136 |
| Benzo(a)anthracene | 67.13 | 5.824 | 49.10 | 64.5 | | 31 - 146 |
| Benzo(a)pyrene | 67.13 | 12.87 | 56.79 | 65.4 | | 28 - 128 |
| Benzo(b)fluoranthene | 67.13 | 15.01 | 54.96 | 59.5 | | 30 - 139 |
| Benzo(g,h,i)perylene | 67.13 | 18.22 | 58.88 | 60.6 | | 21 - 149 |
| Benzo(k)fluoranthene | 67.13 | 10.18 | 50.14 | 59.5 | | 42 - 129 |
| Chrysene | 67.13 | 8.541 | 50.57 | 62.6 | | 39 - 134 |
| Dibenz(a,h)anthracene | 67.13 | 4.913 | 50.15 | 67.4 | | 30 - 138 |
| Fluoranthene | 67.13 | 6.519 | 60.43 | 80.3 | | 30 - 142 |
| Fluorene | 67.13 | ND | 50.84 | 75.7 | | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 67.13 | 13.89 | 57.82 | 65.4 | | 17 - 164 |
| 1-Methylnaphthalene | 68.50 | ND | 47.88 | 69.9 | | 30 - 111 |
| 2-Methylnaphthalene | 67.13 | ND | 45.79 | 68.2 | | 30 - 111 |
| Naphthalene | 67.13 | ND | 41.05 | 61.1 | | 29 - 106 |
| Phenanthrene | 67.13 | ND | 55.13 | 82.1 | | 32 - 127 |
| Pyrene | 67.13 | 7.741 | 60.99 | 79.3 | | 28 - 130 |

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## SW8270D

05-SO-126-0-2

Laboratory: Empirical Laboratories, LLC

SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTOJM26 Saufley 2011

Matrix: Solid

Batch: 2C30006

% Solids: 94.18

Source Sample Name: **1203203-05**

| ANALYTE | SPIKE ADDED (ug/Kg dry) | MSD CONCENTRATION (ug/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 66.70 | 50.92 | 76.3 | 5.68 | | 30 | 28 - 110 |
| Acenaphthylene | 66.70 | 52.60 | 78.9 | 11.2 | | 30 | 23 - 126 |
| Anthracene | 66.70 | 54.78 | 82.1 | 9.18 | | 30 | 28 - 136 |
| Benzo(a)anthracene | 66.70 | 65.10 | 88.9 | 28.0 | | 30 | 31 - 146 |
| Benzo(a)pyrene | 66.70 | 70.67 | 86.6 | 21.8 | | 30 | 28 - 128 |
| Benzo(b)fluoranthene | 66.70 | 73.34 | 87.4 | 28.6 | | 30 | 30 - 139 |
| Benzo(g,h,i)perylene | 66.70 | 75.92 | 86.5 | 25.3 | | 30 | 21 - 149 |
| Benzo(k)fluoranthene | 66.70 | 62.59 | 78.6 | 22.1 | | 30 | 42 - 129 |
| Chrysene | 66.70 | 69.66 | 91.6 | 31.8 | * | 30 | 39 - 134 |
| Dibenz(a,h)anthracene | 66.70 | 61.92 | 85.5 | 21.0 | | 30 | 30 - 138 |
| Fluoranthene | 66.70 | 72.95 | 99.6 | 18.8 | | 30 | 30 - 142 |
| Fluorene | 66.70 | 55.75 | 83.6 | 9.21 | | 30 | 27 - 116 |
| Indeno(1,2,3-cd)pyrene | 66.70 | 71.08 | 85.7 | 20.6 | | 30 | 17 - 164 |
| 1-Methylnaphthalene | 68.06 | 48.81 | 71.7 | 1.94 | | 30 | 30 - 111 |
| 2-Methylnaphthalene | 66.70 | 49.03 | 73.5 | 6.84 | | 30 | 30 - 111 |
| Naphthalene | 66.70 | 45.03 | 67.5 | 9.25 | | 30 | 29 - 106 |
| Phenanthrene | 66.70 | 61.90 | 92.8 | 11.6 | | 30 | 32 - 127 |
| Pyrene | 66.70 | 74.91 | 101 | 20.5 | | 30 | 28 - 130 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09605 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09605-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV2.D | | Analyzed: 04/04/12 22:53 | | |
| 2-Fluorobiphenyl | 5.000 | 87.8 | 80 - 120 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 105 | 80 - 120 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **LCS (2D02012-BS1 ) ug/L** | | | | Lab File ID: D02012L1.D | | Analyzed: 04/05/12 00:45 | | |
| 2-Fluorobiphenyl | 50.00 | 55.9 | 34 - 167 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 106 | 34 - 167 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **LCS Dup (2D02012-BSD1 ) ug/L** | | | | Lab File ID: D02012L2.D | | Analyzed: 04/05/12 01:13 | | |
| 2-Fluorobiphenyl | 50.00 | 76.4 | 34 - 167 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 112 | 34 - 167 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **Blank (2D02012-BLK1 ) ug/L** | | | | Lab File ID: D02012B1.D | | Analyzed: 04/05/12 01:41 | | |
| 2-Fluorobiphenyl | 50.00 | 75.5 | 34 - 167 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 50.00 | 108 | 34 - 167 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **FB-03-27-1201 (1203203-19 ) ug/L** | | | | Lab File ID: 0320319.D | | Analyzed: 04/05/12 09:36 | | |
| 2-Fluorobiphenyl | 48.08 | 73.3 | 34 - 167 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 48.08 | 107 | 34 - 167 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09703 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09703-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/05/12 10:56 | | |
| 2-Fluorobiphenyl | 5.000 | 94.4 | 80 - 120 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 104 | 80 - 120 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **Blank (2C29006-BLK2 ) ug/Kg wet** | | | | Lab File ID: C29006B2.D | | Analyzed: 04/05/12 19:51 | | |
| 2-Fluorobiphenyl | 3333 | 73.0 | 14 - 129 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 95.1 | 14 - 129 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **LCS (2C29006-BS2 ) ug/Kg wet** | | | | Lab File ID: C29006LS2.D | | Analyzed: 04/05/12 20:19 | | |
| 2-Fluorobiphenyl | 3333 | 76.0 | 14 - 129 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 104 | 14 - 129 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **LCS Dup (2C29006-BSD2 ) ug/Kg wet** | | | | Lab File ID: C29006LD2.D | | Analyzed: 04/05/12 20:47 | | |
| 2-Fluorobiphenyl | 3333 | 84.3 | 14 - 129 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 96.6 | 14 - 129 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09704 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09704-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV2.D | | Analyzed: 04/05/12 23:34 | | |
| 2-Fluorobiphenyl | 5.000 | 96.3 | 80 - 120 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 98.3 | 80 - 120 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **05-SO-122-4-6 (1203203-01 ) ug/Kg dry** | | | | Lab File ID: 0320301.D | | Analyzed: 04/06/12 07:02 | | |
| 2-Fluorobiphenyl | 3646 | 60.5 | 14 - 129 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3646 | 80.7 | 14 - 129 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **05-SO-123-4-6 (1203203-02 ) ug/Kg dry** | | | | Lab File ID: 0320302.D | | Analyzed: 04/06/12 07:30 | | |
| 2-Fluorobiphenyl | 3524 | 61.0 | 14 - 129 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3524 | 89.8 | 14 - 129 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **05-SO-124-4-6 (1203203-03 ) ug/Kg dry** | | | | Lab File ID: 0320303.D | | Analyzed: 04/06/12 07:57 | | |
| 2-Fluorobiphenyl | 3637 | 56.8 | 14 - 129 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3637 | 82.3 | 14 - 129 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |
| **05-SO-125-4-6 (1203203-04 ) ug/Kg dry** | | | | Lab File ID: 0320304.D | | Analyzed: 04/06/12 08:26 | | |
| 2-Fluorobiphenyl | 3527 | 64.8 | 14 - 129 | 8.554 | 8.554 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3527 | 102 | 14 - 129 | 13.156 | 13.156 | 0.0000 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09801 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09801-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV2.D | | Analyzed: 04/07/12 00:41 | | |
| 2-Fluorobiphenyl | 5.000 | 88.7 | 80 - 120 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 108 | 80 - 120 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **FD-03-27-1201 (1203203-17 ) ug/Kg dry** | | | | Lab File ID: 0320317.D | | Analyzed: 04/07/12 01:09 | | |
| 2-Fluorobiphenyl | 3535 | 70.8 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3535 | 111 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **05-SO-128-0-2 (1203203-09 ) ug/Kg dry** | | | | Lab File ID: 0320309.D | | Analyzed: 04/07/12 01:37 | | |
| 2-Fluorobiphenyl | 3561 | 71.5 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3561 | 114 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **05-SO-128-4-6 (1203203-10 ) ug/Kg dry** | | | | Lab File ID: 0320310.D | | Analyzed: 04/07/12 02:04 | | |
| 2-Fluorobiphenyl | 3570 | 69.6 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3570 | 120 | 14 - 129 | 13.1 | 13.091 | 0.0090 | +/-0.500 | |
| **05-SO-129-0-2 (1203203-11 ) ug/Kg dry** | | | | Lab File ID: 0320311.D | | Analyzed: 04/07/12 02:32 | | |
| 2-Fluorobiphenyl | 3432 | 70.0 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3432 | 119 | 14 - 129 | 13.1 | 13.091 | 0.0090 | +/-0.500 | |
| **05-SO-130-0-2 (1203203-13 ) ug/Kg dry** | | | | Lab File ID: 0320313.D | | Analyzed: 04/07/12 03:00 | | |
| 2-Fluorobiphenyl | 3452 | 70.0 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3452 | 118 | 14 - 129 | 13.1 | 13.091 | 0.0090 | +/-0.500 | |
| **05-SO-131-0-2 (1203203-15 ) ug/Kg dry** | | | | Lab File ID: 0320315.D | | Analyzed: 04/07/12 03:27 | | |
| 2-Fluorobiphenyl | 3485 | 60.4 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3485 | 109 | 14 - 129 | 13.1 | 13.091 | 0.0090 | +/-0.500 | |
| **FD-03-27-1202 (1203203-18 ) ug/Kg dry** | | | | Lab File ID: 0320318.D | | Analyzed: 04/07/12 03:55 | | |
| 2-Fluorobiphenyl | 3485 | 67.0 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3485 | 120 | 14 - 129 | 13.1 | 13.091 | 0.0090 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D10108 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D10108-CCV1 ) ug/mL** | | | | Lab File ID: SEQ-CCV1.D | | Analyzed: 04/06/12 12:37 | | |
| 2-Fluorobiphenyl | 5.000 | 91.0 | 80 - 120 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 5.000 | 102 | 80 - 120 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **Blank (2C30006-BLK1 ) ug/Kg wet** | | | | Lab File ID: C30006B1.D | | Analyzed: 04/06/12 19:13 | | |
| 2-Fluorobiphenyl | 3333 | 82.0 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 115 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **LCS (2C30006-BS1 ) ug/Kg wet** | | | | Lab File ID: C30006L1.D | | Analyzed: 04/06/12 19:41 | | |
| 2-Fluorobiphenyl | 3333 | 74.8 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3333 | 105 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **05-SO-126-0-2 (1203203-05 ) ug/Kg dry** | | | | Lab File ID: 0320305.D | | Analyzed: 04/06/12 20:09 | | |
| 2-Fluorobiphenyl | 3425 | 76.0 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3425 | 112 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **Matrix Spike (2C30006-MS1 ) ug/Kg dry** | | | | Lab File ID: 0320305M.D | | Analyzed: 04/06/12 20:37 | | |
| 2-Fluorobiphenyl | 3425 | 70.9 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3425 | 110 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **Matrix Spike Dup (2C30006-MSD1 ) ug/Kg dry** | | | | Lab File ID: 0320305S.D | | Analyzed: 04/06/12 21:05 | | |
| 2-Fluorobiphenyl | 3403 | 76.0 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3403 | 121 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **05-SO-126-4-6 (1203203-06 ) ug/Kg dry** | | | | Lab File ID: 0320306.D | | Analyzed: 04/06/12 21:33 | | |
| 2-Fluorobiphenyl | 3641 | 74.8 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3641 | 115 | 14 - 129 | 13.1 | 13.091 | 0.0090 | +/-0.500 | |
| **05-SO-127-0-2 (1203203-07 ) ug/Kg dry** | | | | Lab File ID: 0320307.D | | Analyzed: 04/06/12 22:01 | | |
| 2-Fluorobiphenyl | 3558 | 76.3 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3558 | 122 | 14 - 129 | 13.1 | 13.091 | 0.0090 | +/-0.500 | |
| **05-SO-127-4-6 (1203203-08 ) ug/Kg dry** | | | | Lab File ID: 0320308.D | | Analyzed: 04/06/12 22:29 | | |
| 2-Fluorobiphenyl | 3647 | 71.4 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3647 | 111 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **05-SO-129-4-6 (1203203-12 ) ug/Kg dry** | | | | Lab File ID: 0320312.D | | Analyzed: 04/06/12 22:56 | | |
| 2-Fluorobiphenyl | 3998 | 72.2 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3998 | 113 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |
| **05-SO-130-4-6 (1203203-14 ) ug/Kg dry** | | | | Lab File ID: 0320314.D | | Analyzed: 04/06/12 23:24 | | |
| 2-Fluorobiphenyl | 3474 | 74.7 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3474 | 120 | 14 - 129 | 13.1 | 13.091 | 0.0090 | +/-0.500 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D10108 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SO-131-4-6 (1203203-16 ) ug/Kg dry** | | | | Lab File ID: 0320316.D | | Analyzed: 04/06/12 23:52 | | |
| 2-Fluorobiphenyl | 3531 | 68.5 | 14 - 129 | 8.498 | 8.498 | 0.0000 | +/-0.500 | |
| Terphenyl-d14 | 3531 | 108 | 14 - 129 | 13.091 | 13.091 | 0.0000 | +/-0.500 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09605 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09605-CCV1 )** | | | Lab File ID: SEQ-CCV2.D | | | Analyzed: 04/04/12 22:53 | | | |
| Phenanthrene-d10 | 382251 | 11.185 | 317208 | 11.287 | 121 | 50 - 200 | -0.1020 | +/-0.50 | |
| Perylene-d12 | 120036 | 17.023 | 170406 | 17.19 | 70 | 50 - 200 | -0.1670 | +/-0.50 | |
| **LCS (2D02012-BS1 )** | | | Lab File ID: D02012L1.D | | | Analyzed: 04/05/12 00:45 | | | |
| Phenanthrene-d10 | 367286 | 11.185 | 382251 | 11.185 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 112202 | 17.023 | 120036 | 17.023 | 93 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS Dup (2D02012-BSD1 )** | | | Lab File ID: D02012L2.D | | | Analyzed: 04/05/12 01:13 | | | |
| Phenanthrene-d10 | 372395 | 11.185 | 382251 | 11.185 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 123774 | 17.023 | 120036 | 17.023 | 103 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Blank (2D02012-BLK1 )** | | | Lab File ID: D02012B1.D | | | Analyzed: 04/05/12 01:41 | | | |
| Phenanthrene-d10 | 368522 | 11.185 | 382251 | 11.185 | 96 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 92992 | 17.032 | 120036 | 17.023 | 77 | 50 - 200 | 0.0090 | +/-0.50 | |
| **FB-03-27-1201 (1203203-19 )** | | | Lab File ID: 0320319.D | | | Analyzed: 04/05/12 09:36 | | | |
| Phenanthrene-d10 | 383935 | 11.185 | 382251 | 11.185 | 100 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 112507 | 17.032 | 120036 | 17.023 | 94 | 50 - 200 | 0.0090 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09703 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09703-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/05/12 10:56 | | | |
| Phenanthrene-d10 | 402208 | 11.185 | 317208 | 11.287 | 127 | 50 - 200 | -0.1020 | +/-0.50 | |
| Perylene-d12 | 151026 | 17.032 | 170406 | 17.19 | 89 | 50 - 200 | -0.1580 | +/-0.50 | |
| **Blank (2C29006-BLK2 )** | | | Lab File ID: C29006B2.D | | | Analyzed: 04/05/12 19:51 | | | |
| Phenanthrene-d10 | 337028 | 11.185 | 402208 | 11.185 | 84 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 103368 | 17.032 | 151026 | 17.032 | 68 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS (2C29006-BS2 )** | | | Lab File ID: C29006LS2.D | | | Analyzed: 04/05/12 20:19 | | | |
| Phenanthrene-d10 | 363806 | 11.185 | 402208 | 11.185 | 90 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 108314 | 17.032 | 151026 | 17.032 | 72 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS Dup (2C29006-BSD2 )** | | | Lab File ID: C29006LD2.D | | | Analyzed: 04/05/12 20:47 | | | |
| Phenanthrene-d10 | 280473 | 11.185 | 402208 | 11.185 | 70 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 105196 | 17.032 | 151026 | 17.032 | 70 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 2D09704

SDG: 1203203
Project: NAS Pensacola CTOJM26 Saufley 2011
Instrument: MS-BNA4
Calibration: 2090005

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09704-CCV1 )** | | | Lab File ID: SEQ-CCV2.D | | | Analyzed: 04/05/12 23:34 | | | |
| Phenanthrene-d10 | 358562 | 11.185 | 317208 | 11.287 | 113 | 50 - 200 | -0.1020 | +/-0.50 | |
| Perylene-d12 | 119219 | 17.032 | 170406 | 17.19 | 70 | 50 - 200 | -0.1580 | +/-0.50 | |
| **05-SO-122-4-6 (1203203-01 )** | | | Lab File ID: 0320301.D | | | Analyzed: 04/06/12 07:02 | | | |
| Phenanthrene-d10 | 334560 | 11.185 | 358562 | 11.185 | 93 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 111578 | 17.032 | 119219 | 17.032 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-123-4-6 (1203203-02 )** | | | Lab File ID: 0320302.D | | | Analyzed: 04/06/12 07:30 | | | |
| Phenanthrene-d10 | 359703 | 11.185 | 358562 | 11.185 | 100 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 135056 | 17.032 | 119219 | 17.032 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-124-4-6 (1203203-03 )** | | | Lab File ID: 0320303.D | | | Analyzed: 04/06/12 07:57 | | | |
| Phenanthrene-d10 | 360537 | 11.185 | 358562 | 11.185 | 101 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 131036 | 17.032 | 119219 | 17.032 | 110 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-125-4-6 (1203203-04 )** | | | Lab File ID: 0320304.D | | | Analyzed: 04/06/12 08:26 | | | |
| Phenanthrene-d10 | 360370 | 11.185 | 358562 | 11.185 | 101 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 140617 | 17.032 | 119219 | 17.032 | 118 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

Laboratory: Empirical Laboratories, LLC
Client: Tetra Tech NUS, Inc. (T010)
Sequence: 2D09801

SDG: 1203203
Project: NAS Pensacola CTOJM26 Saufley 2011
Instrument: MS-BNA4
Calibration: 2090005

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09801-CCV1 )** | | | Lab File ID: SEQ-CCV2.D | | | Analyzed: 04/07/12 00:41 | | | |
| Phenanthrene-d10 | 479237 | 11.12 | 317208 | 11.287 | 151 | 50 - 200 | -0.1670 | +/-0.50 | |
| Perylene-d12 | 214586 | 16.921 | 170406 | 17.19 | 126 | 50 - 200 | -0.2690 | +/-0.50 | |
| **FD-03-27-1201 (1203203-17 )** | | | Lab File ID: 0320317.D | | | Analyzed: 04/07/12 01:09 | | | |
| Phenanthrene-d10 | 491268 | 11.12 | 479237 | 11.12 | 103 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 208133 | 16.921 | 214586 | 16.921 | 97 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-128-0-2 (1203203-09 )** | | | Lab File ID: 0320309.D | | | Analyzed: 04/07/12 01:37 | | | |
| Phenanthrene-d10 | 493828 | 11.12 | 479237 | 11.12 | 103 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 241750 | 16.921 | 214586 | 16.921 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-128-4-6 (1203203-10 )** | | | Lab File ID: 0320310.D | | | Analyzed: 04/07/12 02:04 | | | |
| Phenanthrene-d10 | 527541 | 11.12 | 479237 | 11.12 | 110 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 261786 | 16.921 | 214586 | 16.921 | 122 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-129-0-2 (1203203-11 )** | | | Lab File ID: 0320311.D | | | Analyzed: 04/07/12 02:32 | | | |
| Phenanthrene-d10 | 504977 | 11.12 | 479237 | 11.12 | 105 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 258598 | 16.921 | 214586 | 16.921 | 121 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-130-0-2 (1203203-13 )** | | | Lab File ID: 0320313.D | | | Analyzed: 04/07/12 03:00 | | | |
| Phenanthrene-d10 | 505555 | 11.12 | 479237 | 11.12 | 105 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 245893 | 16.921 | 214586 | 16.921 | 115 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-131-0-2 (1203203-15 )** | | | Lab File ID: 0320315.D | | | Analyzed: 04/07/12 03:27 | | | |
| Phenanthrene-d10 | 523025 | 11.12 | 479237 | 11.12 | 109 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 238849 | 16.921 | 214586 | 16.921 | 111 | 50 - 200 | 0.0000 | +/-0.50 | |
| **FD-03-27-1202 (1203203-18 )** | | | Lab File ID: 0320318.D | | | Analyzed: 04/07/12 03:55 | | | |
| Phenanthrene-d10 | 543509 | 11.12 | 479237 | 11.12 | 113 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 277775 | 16.921 | 214586 | 16.921 | 129 | 50 - 200 | 0.0000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY
## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D10108 | Instrument: | MS-BNA4 |
| | | Calibration: | 2090005 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D10108-CCV1 )** | | | Lab File ID: SEQ-CCV1.D | | | Analyzed: 04/06/12 12:37 | | | |
| Phenanthrene-d10 | 442423 | 11.12 | 317208 | 11.287 | 139 | 50 - 200 | -0.1670 | +/-0.50 | |
| Perylene-d12 | 170510 | 16.921 | 170406 | 17.19 | 100 | 50 - 200 | -0.2690 | +/-0.50 | |
| **Blank (2C30006-BLK1 )** | | | Lab File ID: C30006B1.D | | | Analyzed: 04/06/12 19:13 | | | |
| Phenanthrene-d10 | 468619 | 11.12 | 442423 | 11.12 | 106 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 153017 | 16.921 | 170510 | 16.921 | 90 | 50 - 200 | 0.0000 | +/-0.50 | |
| **LCS (2C30006-BS1 )** | | | Lab File ID: C30006L1.D | | | Analyzed: 04/06/12 19:41 | | | |
| Phenanthrene-d10 | 478997 | 11.12 | 442423 | 11.12 | 108 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 160479 | 16.921 | 170510 | 16.921 | 94 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-126-0-2 (1203203-05 )** | | | Lab File ID: 0320305.D | | | Analyzed: 04/06/12 20:09 | | | |
| Phenanthrene-d10 | 463744 | 11.12 | 442423 | 11.12 | 105 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 207733 | 16.921 | 170510 | 16.921 | 122 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike (2C30006-MS1 )** | | | Lab File ID: 0320305M.D | | | Analyzed: 04/06/12 20:37 | | | |
| Phenanthrene-d10 | 485357 | 11.12 | 442423 | 11.12 | 110 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 200898 | 16.921 | 170510 | 16.921 | 118 | 50 - 200 | 0.0000 | +/-0.50 | |
| **Matrix Spike Dup (2C30006-MSD1 )** | | | Lab File ID: 0320305S.D | | | Analyzed: 04/06/12 21:05 | | | |
| Phenanthrene-d10 | 486626 | 11.12 | 442423 | 11.12 | 110 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 241028 | 16.921 | 170510 | 16.921 | 141 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-126-4-6 (1203203-06 )** | | | Lab File ID: 0320306.D | | | Analyzed: 04/06/12 21:33 | | | |
| Phenanthrene-d10 | 504900 | 11.12 | 442423 | 11.12 | 114 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 224921 | 16.921 | 170510 | 16.921 | 132 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-127-0-2 (1203203-07 )** | | | Lab File ID: 0320307.D | | | Analyzed: 04/06/12 22:01 | | | |
| Phenanthrene-d10 | 510538 | 11.12 | 442423 | 11.12 | 115 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 226218 | 16.921 | 170510 | 16.921 | 133 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-127-4-6 (1203203-08 )** | | | Lab File ID: 0320308.D | | | Analyzed: 04/06/12 22:29 | | | |
| Phenanthrene-d10 | 488083 | 11.12 | 442423 | 11.12 | 110 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 224096 | 16.921 | 170510 | 16.921 | 131 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-129-4-6 (1203203-12 )** | | | Lab File ID: 0320312.D | | | Analyzed: 04/06/12 22:56 | | | |
| Phenanthrene-d10 | 460295 | 11.12 | 442423 | 11.12 | 104 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 209420 | 16.921 | 170510 | 16.921 | 123 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-130-4-6 (1203203-14 )** | | | Lab File ID: 0320314.D | | | Analyzed: 04/06/12 23:24 | | | |
| Phenanthrene-d10 | 508186 | 11.12 | 442423 | 11.12 | 115 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 238169 | 16.921 | 170510 | 16.921 | 140 | 50 - 200 | 0.0000 | +/-0.50 | |
| **05-SO-131-4-6 (1203203-16 )** | | | Lab File ID: 0320316.D | | | Analyzed: 04/06/12 23:52 | | | |
| Phenanthrene-d10 | 488909 | 11.12 | 442423 | 11.12 | 111 | 50 - 200 | 0.0000 | +/-0.50 | |
| Perylene-d12 | 211591 | 16.921 | 170510 | 16.921 | 124 | 50 - 200 | 0.0000 | +/-0.50 | |

# Data for FLPRO Forms

# HOLDING TIME SUMMARY
## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| 05-SO-122-4-6 | 03/27/12 08:10 | 03/28/12 08:20 | 03/30/12 12:17 | 3.17 | 14.00 | 04/06/12 06:12 | 6.75 | 40.00 | |
| 05-SO-123-4-6 | 03/27/12 08:35 | 03/28/12 08:20 | 03/30/12 12:17 | 3.15 | 14.00 | 04/06/12 06:45 | 6.77 | 40.00 | |
| 05-SO-124-4-6 | 03/27/12 08:25 | 03/28/12 08:20 | 03/30/12 12:17 | 3.16 | 14.00 | 04/06/12 07:18 | 6.79 | 40.00 | |
| 05-SO-125-4-6 | 03/27/12 08:45 | 03/28/12 08:20 | 03/30/12 12:17 | 3.15 | 14.00 | 04/06/12 07:51 | 6.82 | 40.00 | |
| 05-SO-126-0-2 | 03/27/12 09:00 | 03/28/12 08:20 | 03/30/12 12:17 | 3.14 | 14.00 | 04/06/12 08:58 | 6.86 | 40.00 | |
| 05-SO-126-4-6 | 03/27/12 09:10 | 03/28/12 08:20 | 03/30/12 12:17 | 3.13 | 14.00 | 04/06/12 09:41 | 6.89 | 40.00 | |
| 05-SO-127-0-2 | 03/27/12 09:20 | 03/28/12 08:20 | 03/30/12 12:17 | 3.12 | 14.00 | 04/06/12 10:15 | 6.92 | 40.00 | |
| 05-SO-127-4-6 | 03/27/12 09:30 | 03/28/12 08:20 | 03/30/12 12:17 | 3.12 | 14.00 | 04/06/12 10:48 | 6.94 | 40.00 | |
| 05-SO-128-0-2 | 03/27/12 09:35 | 03/28/12 08:20 | 03/30/12 12:17 | 3.11 | 14.00 | 04/06/12 11:22 | 6.96 | 40.00 | |
| 05-SO-128-4-6 | 03/27/12 09:40 | 03/28/12 08:20 | 03/30/12 12:17 | 3.11 | 14.00 | 04/06/12 11:55 | 6.98 | 40.00 | |
| 05-SO-129-0-2 | 03/27/12 09:45 | 03/28/12 08:20 | 03/30/12 12:17 | 3.11 | 14.00 | 04/06/12 12:29 | 7.01 | 40.00 | |
| 05-SO-129-4-6 | 03/27/12 09:50 | 03/28/12 08:20 | 03/30/12 12:17 | 3.10 | 14.00 | 04/11/12 19:12 | 12.29 | 40.00 | |
| 05-SO-130-0-2 | 03/27/12 10:05 | 03/28/12 08:20 | 03/30/12 12:17 | 3.09 | 14.00 | 04/11/12 19:45 | 12.31 | 40.00 | |
| 05-SO-130-4-6 | 03/27/12 10:10 | 03/28/12 08:20 | 03/30/12 12:17 | 3.09 | 14.00 | 04/11/12 20:18 | 12.33 | 40.00 | |
| 05-SO-131-0-2 | 03/27/12 09:55 | 03/28/12 08:20 | 03/30/12 12:17 | 3.10 | 14.00 | 04/11/12 20:51 | 12.36 | 40.00 | |
| 05-SO-131-4-6 | 03/27/12 10:00 | 03/28/12 08:20 | 03/30/12 12:17 | 3.10 | 14.00 | 04/11/12 21:25 | 12.38 | 40.00 | |
| FD-03-27-1201 | 03/27/12 00:01 | 03/28/12 08:20 | 03/30/12 12:17 | 3.51 | 14.00 | 04/11/12 21:58 | 12.40 | 40.00 | |
| FD-03-27-1202 | 03/27/12 00:01 | 03/28/12 08:20 | 04/04/12 09:30 | 8.40 | 14.00 | 04/11/12 16:59 | 7.31 | 40.00 | |
| FB-03-27-1201 | 03/27/12 00:01 | 03/28/12 08:20 | 03/29/12 13:50 | 2.58 | 7.00 | 04/11/12 13:39 | 12.99 | 40.00 | |

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09714 | Instrument: | GL-GCFID2 |
| Calibration: | 2097002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Cal Standard | 2D09714-CAL6 | 002F0201.D | 04/04/12 12:34 |
| Cal Standard | 2D09714-CAL5 | 003F0301.D | 04/04/12 13:07 |
| Cal Standard | 2D09714-CAL4 | 004F0401.D | 04/04/12 13:41 |
| Cal Standard | 2D09714-CAL3 | 005F0501.D | 04/04/12 14:15 |
| Cal Standard | 2D09714-CAL2 | 006F0601.D | 04/04/12 14:48 |
| Cal Standard | 2D09714-CAL1 | 007F0701.D | 04/04/12 15:22 |
| Initial Cal Check | 2D09714-ICV1 | 008F0801.D | 04/04/12 15:55 |

# INITIAL CALIBRATION STANDARDS

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09714 | Instrument: | GL-GCFID2 |
| Calibration: | 2097002 | | |

| Standard ID | Description | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|---|
| 12B0856 | FLPRO CAL1 85ppm | 2D09714-CAL6 | 002F0201.D | 04/04/12 12:34 |
| 12B0855 | FLPRO CAL2 850ppm | 2D09714-CAL5 | 003F0301.D | 04/04/12 13:07 |
| 12B0854 | FLPRO CAL3 2550ppm | 2D09714-CAL4 | 004F0401.D | 04/04/12 13:41 |
| 12B0841 | FLPRO CAL4 4250ppm | 2D09714-CAL3 | 005F0501.D | 04/04/12 14:15 |
| 12B0840 | FLPRO CAL5 5950ppm | 2D09714-CAL2 | 006F0601.D | 04/04/12 14:48 |
| 12B0839 | FLPRO CAL6 8500ppm | 2D09714-CAL1 | 007F0701.D | 04/04/12 15:22 |

# INITIAL CALIBRATION DATA (Continued)

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Calibration: | 2097002 | Instrument: | GL-GCFID2 |
| Matrix: | Water | Calibration Dates: | 4/4/12 12:34 4/4/12 15:22 |

| Compound | Mean RF | RF RSD | Mean RT | RT RSD | Linear r | Quad COD | LIMIT | Q |
|---|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 1011.201 | 2.985751 | 4.413 | 1.957789E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1149.214 | 3.389535 | 9.150833 | 7.536967E-02 | | | 20 | |
| o-Terphenyl | 1329.232 | 3.420503 | 11.363 | 0.1590986 | | | 20 | |
| Petroleum Range Organics | 1011.201 | 2.98575 | 4.413 | 1.957789E-02 | | | 20 | |
| 2-Fluorobiphenyl | 1149.214 | 3.389535 | 9.150833 | 7.536967E-02 | | | 20 | |
| o-Terphenyl | 1329.232 | 3.420503 | 11.363 | 0.1590986 | | | 20 | |

# INITIAL CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | GL-GCFID2 | Calibration: | 2097002 |
| Lab File ID: | 008F0801.D | Calibration Date: | 04/04/12 15:30 |
| Sequence: | 2D09714 | Injection Date: | 04/04/12 |
| Lab Sample ID: | 2D09714-ICV1 | Injection Time: | 15:55 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN (#) | ICV | LIMIT (#) |
| Petroleum Range Organics | A | 4000 | 4163 | 1011.201 | 1052.4 | | 4.1 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09715 | Instrument: | GL-GCFID2 |
| Calibration: | 2097002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 2D09715-CCV1 | 009F0901.D | 04/04/12 16:29 |
| Calibration Check | 2D09715-CCV5 | 061F6101.D | 04/05/12 21:20 |
| Blank | 2C29026-BLK1 | 070F7001.D | 04/06/12 02:19 |
| LCS | 2C29026-BS1 | 071F7101.D | 04/06/12 02:52 |
| 05-SO-122-4-6 | 1203203-01 | 077F7701.D | 04/06/12 06:12 |
| 05-SO-123-4-6 | 1203203-02 | 078F7801.D | 04/06/12 06:45 |
| 05-SO-124-4-6 | 1203203-03 | 079F7901.D | 04/06/12 07:18 |
| 05-SO-125-4-6 | 1203203-04 | 080F8001.D | 04/06/12 07:51 |
| Calibration Check | 2D09715-CCV6 | 081F8101.D | 04/06/12 08:25 |
| 05-SO-126-0-2 | 1203203-05 | 082F8201.D | 04/06/12 08:58 |
| 05-SO-126-4-6 | 1203203-06 | 083F8301.D | 04/06/12 09:41 |
| 05-SO-127-0-2 | 1203203-07 | 084F8401.D | 04/06/12 10:15 |
| 05-SO-127-4-6 | 1203203-08 | 085F8501.D | 04/06/12 10:48 |
| 05-SO-128-0-2 | 1203203-09 | 086F8601.D | 04/06/12 11:22 |
| 05-SO-128-4-6 | 1203203-10 | 087F8701.D | 04/06/12 11:55 |
| 05-SO-129-0-2 | 1203203-11 | 088F8801.D | 04/06/12 12:29 |
| Calibration Check | 2D09715-CCV7 | 089F8901.D | 04/06/12 13:02 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | GL-GCFID2 | Calibration: | 2097002 |
| Lab File ID: | 009F0901.D | Calibration Date: | 04/04/12 15:30 |
| Sequence: | 2D09715 | Injection Date: | 04/04/12 |
| Lab Sample ID: | 2D09715-CCV1 | Injection Time: | 16:29 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4496 | 1011.201 | 1069.614 | | 5.8 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 26.93 | 1149.214 | 1237.92 | | 7.7 | 25 |
| o-Terphenyl | A | 25.00 | 27.34 | 1329.232 | 1453.8 | | 9.4 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | GL-GCFID2 | Calibration: | 2097002 |
| Lab File ID: | 061F6101.D | Calibration Date: | 04/04/12 15:30 |
| Sequence: | 2D09715 | Injection Date: | 04/05/12 |
| Lab Sample ID: | 2D09715-CCV5 | Injection Time: | 21:20 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 4280 | 1011.201 | 1018.465 | | 0.7 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 30.35 | 1149.214 | 1395.08 | | 21.4 | 25 |
| o-Terphenyl | A | 25.00 | 29.73 | 1329.232 | 1580.56 | | 18.9 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | GL-GCFID2 | Calibration: | 2097002 |
| Lab File ID: | 081F8101.D | Calibration Date: | 04/04/12 15:30 |
| Sequence: | 2D09715 | Injection Date: | 04/06/12 |
| Lab Sample ID: | 2D09715-CCV6 | Injection Time: | 08:25 |

| COMPOUND | TYPE | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| | | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3935 | 1011.201 | 936.2734 | | -7.4 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 27.00 | 1149.214 | 1241.16 | | 8.0 | 25 |
| o-Terphenyl | A | 25.00 | 28.00 | 1329.232 | 1489.04 | | 12.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | GL-GCFID2 | Calibration: | 2097002 |
| Lab File ID: | 089F8901.D | Calibration Date: | 04/04/12 15:30 |
| Sequence: | 2D09715 | Injection Date: | 04/06/12 |
| Lab Sample ID: | 2D09715-CCV7 | Injection Time: | 13:02 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3966 | 1011.201 | 943.6478 | | -6.7 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 27.31 | 1149.214 | 1255.28 | | 9.2 | 25 |
| o-Terphenyl | A | 25.00 | 28.00 | 1329.232 | 1489.04 | | 12.0 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# ANALYSIS SEQUENCE SUMMARY
## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D10307 | Instrument: | GL-GCFID2 |
| Calibration: | 2097002 | | |

| Sample Name | Lab Sample ID | Lab File ID | Analysis Date/Time |
|---|---|---|---|
| Calibration Check | 2D10307-CCV1 | 002F0201.D | 04/11/12 10:51 |
| Blank | 2C29009-BLK1 | 003F0301.D | 04/11/12 11:25 |
| LCS | 2C29009-BS1 | 004F0401.D | 04/11/12 11:58 |
| LCS Dup | 2C29009-BSD1 | 005F0501.D | 04/11/12 12:32 |
| FB-03-27-1201 | 1203203-19 | 007F0701.D | 04/11/12 13:39 |
| Calibration Check | 2D10307-CCV2 | 008F0801.D | 04/11/12 14:12 |
| Blank | 2D03014-BLK1 | 009F0901.D | 04/11/12 14:45 |
| LCS | 2D03014-BS1 | 010F1001.D | 04/11/12 15:19 |
| FD-03-27-1202 | 1203203-18 | 013F1301.D | 04/11/12 16:59 |
| FD-03-27-1202 | 2D03014-MS1 | 014F1401.D | 04/11/12 17:32 |
| FD-03-27-1202 | 2D03014-MSD1 | 015F1501.D | 04/11/12 18:05 |
| 05-SO-129-4-6 | 1203203-12 | 017F1701.D | 04/11/12 19:12 |
| 05-SO-130-0-2 | 1203203-13 | 018F1801.D | 04/11/12 19:45 |
| 05-SO-130-4-6 | 1203203-14 | 019F1901.D | 04/11/12 20:18 |
| 05-SO-131-0-2 | 1203203-15 | 020F2001.D | 04/11/12 20:51 |
| 05-SO-131-4-6 | 1203203-16 | 021F2101.D | 04/11/12 21:25 |
| FD-03-27-1201 | 1203203-17 | 022F2201.D | 04/11/12 21:58 |
| Calibration Check | 2D10307-CCV3 | 023F2301.D | 04/11/12 22:31 |

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | GL-GCFID2 | Calibration: | 2097002 |
| Lab File ID: | 002F0201.D | Calibration Date: | 04/04/12 15:30 |
| Sequence: | 2D10307 | Injection Date: | 04/11/12 |
| Lab Sample ID: | 2D10307-CCV1 | Injection Time: | 10:51 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3268 | 1011.201 | 777.4746 | | -23.1 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 24.47 | 1149.214 | 1124.84 | | -2.1 | 25 |
| o-Terphenyl | A | 25.00 | 26.46 | 1329.232 | 1407.12 | | 5.9 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | GL-GCFID2 | Calibration: | 2097002 |
| Lab File ID: | 008F0801.D | Calibration Date: | 04/04/12 15:30 |
| Sequence: | 2D10307 | Injection Date: | 04/11/12 |
| Lab Sample ID: | 2D10307-CCV2 | Injection Time: | 14:12 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3376 | 1011.201 | 803.2927 | | -20.6 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 24.55 | 1149.214 | 1128.64 | | -1.8 | 25 |
| o-Terphenyl | A | 25.00 | 26.65 | 1329.232 | 1417 | | 6.6 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | GL-GCFID2 | Calibration: | 2097002 |
| Lab File ID: | 023F2301.D | Calibration Date: | 04/04/12 15:30 |
| Sequence: | 2D10307 | Injection Date: | 04/11/12 |
| Lab Sample ID: | 2D10307-CCV3 | Injection Time: | 22:31 |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Petroleum Range Organics | A | 4250 | 3408 | 1011.201 | 810.9685 | | -19.8 | 25 |
| 2-Fluorobiphenyl | A | 25.00 | 25.95 | 1149.214 | 1193.08 | | 3.8 | 25 |
| o-Terphenyl | A | 25.00 | 27.31 | 1329.232 | 1452.24 | | 9.3 | 25 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

## FLPRO

**FD-03-27-1202**

Laboratory: Empirical Laboratories, LLC

SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010)

Project: NAS Pensacola CTOJM26 Saufley 2011

Matrix: Solid

Batch: 2D03014

% Solids: 92.55

Source Sample Name: **1203203-18**

| ANALYTE | SPIKE ADDED (mg/Kg dry) | SAMPLE CONCENTRATION (mg/Kg dry) | MS CONCENTRATION (mg/Kg dry) | MS % REC. | Q | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 230.5 | 29.03 | 176.1 | 63.8 | | 50 - 140 |

| ANALYTE | SPIKE ADDED (mg/Kg dry) | MSD CONCENTRATION (mg/Kg dry) | MSD % REC. # | % RPD | Q | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|---|
| Petroleum Range Organics | 220.2 | 184.6 | 70.6 | 4.69 | | 40 | 50 - 140 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 2C29009 Batch Matrix: Water Preparation: EXT_3510

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| FB-03-27-1201 | 1203203-19 | 03/29/12 13:50 | 1,000.00 | 2.00 |
| Blank | 2C29009-BLK1 | 03/29/12 13:50 | 1,000.00 | 2.00 |
| LCS | 2C29009-BS1 | 03/29/12 13:50 | 1,000.00 | 2.00 |
| LCS Dup | 2C29009-BSD1 | 03/29/12 13:50 | 1,000.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1203203 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | | Laboratory ID: | 2C29009-BLK1 | File ID: | 003F0301.D |
| Sampled: | | Prepared: | | Analyzed: | 04/11/12 11:25 |
| Solids: | | Preparation: | EXT_3510 | Dilution: | |

Batch: 2C29009 Sequence: 2D10307 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | CONC. (mg/L) | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 0.170 | 0.340 | 0.680 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/L) | CONC (mg/L) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 0.05000 | 0.04064 | 81.3 | 50 - 150 | |
| o-Terphenyl | 0.05000 | 0.04238 | 84.8 | 82 - 142 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Water | | |
| Batch: | 2C29009 | Laboratory ID: | 2C29009-BS1 |
| Preparation: | EXT_3510 | Initial/Final: | 1000 mL / 2 mL |

| ANALYTE | SPIKE ADDED (mg/L) | LCS CONCENTRATION (mg/L) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 2.163 | 67.6 | 55 - 118 |

| ANALYTE | SPIKE ADDED (mg/L) | LCSD CONCENTRATION (mg/L) | LCSD % REC. # | % RPD # | QC LIMITS RPD | QC LIMITS REC. |
|---|---|---|---|---|---|---|
| Petroleum Range Organics | 3.200 | 1.910 | 59.7 | 12.4 | 30 | 55 - 118 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 2C29026 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| 05-SO-122-4-6 | 1203203-01 | 03/30/12 12:17 | 15.10 | 2.00 |
| 05-SO-123-4-6 | 1203203-02 | 03/30/12 12:17 | 15.20 | 2.00 |
| 05-SO-124-4-6 | 1203203-03 | 03/30/12 12:17 | 15.50 | 2.00 |
| 05-SO-125-4-6 | 1203203-04 | 03/30/12 12:17 | 15.50 | 2.00 |
| 05-SO-126-0-2 | 1203203-05 | 03/30/12 12:17 | 15.20 | 2.00 |
| 05-SO-126-4-6 | 1203203-06 | 03/30/12 12:17 | 15.60 | 2.00 |
| 05-SO-127-0-2 | 1203203-07 | 03/30/12 12:17 | 15.50 | 2.00 |
| 05-SO-127-4-6 | 1203203-08 | 03/30/12 12:17 | 15.20 | 2.00 |
| 05-SO-128-0-2 | 1203203-09 | 03/30/12 12:17 | 15.20 | 2.00 |
| 05-SO-128-4-6 | 1203203-10 | 03/30/12 12:17 | 15.10 | 2.00 |
| 05-SO-129-0-2 | 1203203-11 | 03/30/12 12:17 | 15.40 | 2.00 |
| 05-SO-129-4-6 | 1203203-12 | 03/30/12 12:17 | 15.70 | 2.00 |
| 05-SO-130-0-2 | 1203203-13 | 03/30/12 12:17 | 15.40 | 2.00 |
| 05-SO-130-4-6 | 1203203-14 | 03/30/12 12:17 | 15.10 | 2.00 |
| 05-SO-131-0-2 | 1203203-15 | 03/30/12 12:17 | 15.50 | 2.00 |
| 05-SO-131-4-6 | 1203203-16 | 03/30/12 12:17 | 15.20 | 2.00 |
| FD-03-27-1201 | 1203203-17 | 03/30/12 12:17 | 15.60 | 2.00 |
| Blank | 2C29026-BLK1 | 03/30/12 12:17 | 15.00 | 2.00 |
| LCS | 2C29026-BS1 | 03/30/12 12:17 | 15.00 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | | SDG: | 1203203 | |
| Client: | Tetra Tech NUS, Inc. (T010) | | Project: | NAS Pensacola CTOJM26 Saufley 20 | |
| Matrix: | | Laboratory ID: | 2C29026-BLK1 | File ID: | 070F7001.D |
| Sampled: | | Prepared: | | Analyzed: | 04/06/12 02:19 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

Batch: 2C29026 Sequence: 2D09715 Calibration: 2097002 Instrument: GL-GCFID2

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 3.161 | 94.8 | 50 - 150 | |
| o-Terphenyl | 3.333 | 3.229 | 96.9 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Solid | | |
| Batch: | 2C29026 | Laboratory ID: | 2C29026-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 162.4 | 76.1 | 50 - 140 |

# PREPARATION BATCH SUMMARY

## FLPRO

Laboratory: Empirical Laboratories, LLC SDG: 1203203

Client: Tetra Tech NUS, Inc. (T010) Project: NAS Pensacola CTOJM26 Saufley 2011

Batch: 2D03014 Batch Matrix: Solid Preparation: EXT_3546

| SAMPLE NAME | LAB SAMPLE ID | DATE PREPARED | INITIAL VOL./WEIGHT | FINAL VOL. |
|---|---|---|---|---|
| FD-03-27-1202 | 1203203-18 | 04/04/12 09:30 | 15.10 | 2.00 |
| Blank | 2D03014-BLK1 | 04/04/12 09:30 | 15.00 | 2.00 |
| LCS | 2D03014-BS1 | 04/04/12 09:30 | 15.00 | 2.00 |
| FD-03-27-1202 | 2D03014-MS1 | 04/04/12 09:30 | 15.00 | 2.00 |
| FD-03-27-1202 | 2D03014-MSD1 | 04/04/12 09:30 | 15.70 | 2.00 |

# ANALYSIS DATA SHEET

**Blank**

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 20 |

| | | | | | |
|---|---|---|---|---|---|
| Matrix: | | Laboratory ID: | 2D03014-BLK1 | File ID: | 009F0901.D |
| Sampled: | | Prepared: | | Analyzed: | 04/11/12 14:45 |
| Solids: | | Preparation: | EXT_3546 | Dilution: | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Batch: | 2D03014 | Sequence: | 2D10307 | Calibration: | 2097002 | Instrument: | GL-GCFID2 |

| CAS NO. | COMPOUND | ONC. (mg/Kg we | DL | LOD | LOQ | Q |
|---|---|---|---|---|---|---|
| | Petroleum Range Organics | | 11.0 | 22.0 | 44.0 | U |

| SYSTEM MONITORING COMPOUND | ADDED (mg/Kg wet) | CONC (mg/Kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| 2-Fluorobiphenyl | 3.333 | 2.487 | 74.6 | 50 - 150 | |
| o-Terphenyl | 3.333 | 2.505 | 75.1 | 35 - 140 | |

# LCS / LCS DUPLICATE RECOVERY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Matrix: | Solid | | |
| Batch: | 2D03014 | Laboratory ID: | 2D03014-BS1 |
| Preparation: | EXT_3546 | Initial/Final: | 15 g / 2 mL |

| ANALYTE | SPIKE ADDED (mg/Kg wet) | LCS CONCENTRATION (mg/Kg wet) | LCS % REC. | QC LIMITS REC. |
|---|---|---|---|---|
| Petroleum Range Organics | 213.3 | 143.4 | 67.2 | 50 - 140 |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09715 | Instrument: | GL-GCFID2 |
| | | Calibration: | 2097002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D09715-CCV1 ) mg/L** | | | | Lab File ID: 009F0901.D | | Analyzed: 04/04/12 16:29 | | |
| 2-Fluorobiphenyl | 25.00 | 108 | 75 - 125 | 9.136 | 9.136 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 109 | 75 - 125 | 11.32 | 11.32 | 0.0000 | +/-0.050 | |
| **Calibration Check (2D09715-CCV5 ) mg/L** | | | | Lab File ID: 061F6101.D | | Analyzed: 04/05/12 21:20 | | |
| 2-Fluorobiphenyl | 25.00 | 121 | 75 - 125 | 9.106 | 9.136 | -0.0300 | +/-0.050 | |
| o-Terphenyl | 25.00 | 119 | 75 - 125 | 11.256 | 11.32 | -0.0640 | +/-0.050 | * |
| **Blank (2C29026-BLK1 ) mg/Kg wet** | | | | Lab File ID: 070F7001.D | | Analyzed: 04/06/12 02:19 | | |
| 2-Fluorobiphenyl | 3.333 | 94.8 | 50 - 150 | 9.11 | 9.136 | -0.0260 | +/-0.050 | |
| o-Terphenyl | 3.333 | 96.9 | 35 - 140 | 11.256 | 11.32 | -0.0640 | +/-0.050 | * |
| **LCS (2C29026-BS1 ) mg/Kg wet** | | | | Lab File ID: 071F7101.D | | Analyzed: 04/06/12 02:52 | | |
| 2-Fluorobiphenyl | 3.333 | 95.1 | 50 - 150 | 9.11 | 9.136 | -0.0260 | +/-0.050 | |
| o-Terphenyl | 3.333 | 96.4 | 35 - 140 | 11.256 | 11.32 | -0.0640 | +/-0.050 | * |
| **05-SO-122-4-6 (1203203-01 ) mg/Kg dry** | | | | Lab File ID: 077F7701.D | | Analyzed: 04/06/12 06:12 | | |
| 2-Fluorobiphenyl | 3.646 | 91.6 | 50 - 150 | 9.11 | 9.136 | -0.0260 | +/-0.050 | |
| o-Terphenyl | 3.646 | 90.8 | 35 - 140 | 11.266 | 11.32 | -0.0540 | +/-0.050 | * |
| **05-SO-123-4-6 (1203203-02 ) mg/Kg dry** | | | | Lab File ID: 078F7801.D | | Analyzed: 04/06/12 06:45 | | |
| 2-Fluorobiphenyl | 3.524 | 84.1 | 50 - 150 | 9.11 | 9.136 | -0.0260 | +/-0.050 | |
| o-Terphenyl | 3.524 | 86.4 | 35 - 140 | 11.276 | 11.32 | -0.0440 | +/-0.050 | |
| **05-SO-124-4-6 (1203203-03 ) mg/Kg dry** | | | | Lab File ID: 079F7901.D | | Analyzed: 04/06/12 07:18 | | |
| 2-Fluorobiphenyl | 3.590 | 97.6 | 50 - 150 | 9.106 | 9.136 | -0.0300 | +/-0.050 | |
| o-Terphenyl | 3.590 | 86.8 | 35 - 140 | 11.273 | 11.32 | -0.0470 | +/-0.050 | |
| **05-SO-125-4-6 (1203203-04 ) mg/Kg dry** | | | | Lab File ID: 080F8001.D | | Analyzed: 04/06/12 07:51 | | |
| 2-Fluorobiphenyl | 3.459 | 92.6 | 50 - 150 | 9.11 | 9.136 | -0.0260 | +/-0.050 | |
| o-Terphenyl | 3.459 | 92.8 | 35 - 140 | 11.29 | 11.32 | -0.0300 | +/-0.050 | |
| **Calibration Check (2D09715-CCV6 ) mg/L** | | | | Lab File ID: 081F8101.D | | Analyzed: 04/06/12 08:25 | | |
| 2-Fluorobiphenyl | 25.00 | 108 | 75 - 125 | 9.103 | 9.136 | -0.0330 | +/-0.050 | |
| o-Terphenyl | 25.00 | 112 | 75 - 125 | 11.263 | 11.32 | -0.0570 | +/-0.050 | * |
| **05-SO-126-0-2 (1203203-05 ) mg/Kg dry** | | | | Lab File ID: 082F8201.D | | Analyzed: 04/06/12 08:58 | | |
| 2-Fluorobiphenyl | 3.493 | 96.0 | 50 - 150 | 9.103 | 9.136 | -0.0330 | +/-0.050 | |
| o-Terphenyl | 3.493 | 94.7 | 35 - 140 | 11.273 | 11.32 | -0.0470 | +/-0.050 | |
| **05-SO-126-4-6 (1203203-06 ) mg/Kg dry** | | | | Lab File ID: 083F8301.D | | Analyzed: 04/06/12 09:41 | | |
| 2-Fluorobiphenyl | 3.524 | 102 | 50 - 150 | 9.113 | 9.136 | -0.0230 | +/-0.050 | |
| o-Terphenyl | 3.524 | 101 | 35 - 140 | 11.32 | 11.32 | 0.0000 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D09715 | Instrument: | GL-GCFID2 |
| | | Calibration: | 2097002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SO-127-0-2 (1203203-07 ) mg/Kg dry** | | | | Lab File ID: 084F8401.D | | Analyzed: 04/06/12 10:15 | | |
| 2-Fluorobiphenyl | 3.489 | 98.3 | 50 - 150 | 9.106 | 9.136 | -0.0300 | +/-0.050 | |
| o-Terphenyl | 3.489 | 97.0 | 35 - 140 | 11.286 | 11.32 | -0.0340 | +/-0.050 | |
| **05-SO-127-4-6 (1203203-08 ) mg/Kg dry** | | | | Lab File ID: 085F8501.D | | Analyzed: 04/06/12 10:48 | | |
| 2-Fluorobiphenyl | 3.599 | 94.2 | 50 - 150 | 9.103 | 9.136 | -0.0330 | +/-0.050 | |
| o-Terphenyl | 3.599 | 92.9 | 35 - 140 | 11.28 | 11.32 | -0.0400 | +/-0.050 | |
| **05-SO-128-0-2 (1203203-09 ) mg/Kg dry** | | | | Lab File ID: 086F8601.D | | Analyzed: 04/06/12 11:22 | | |
| 2-Fluorobiphenyl | 3.585 | 103 | 50 - 150 | 9.103 | 9.136 | -0.0330 | +/-0.050 | |
| o-Terphenyl | 3.585 | 101 | 35 - 140 | 11.27 | 11.32 | -0.0500 | +/-0.050 | |
| **05-SO-128-4-6 (1203203-10 ) mg/Kg dry** | | | | Lab File ID: 087F8701.D | | Analyzed: 04/06/12 11:55 | | |
| 2-Fluorobiphenyl | 3.594 | 101 | 50 - 150 | 9.1 | 9.136 | -0.0360 | +/-0.050 | |
| o-Terphenyl | 3.594 | 100 | 35 - 140 | 11.27 | 11.32 | -0.0500 | +/-0.050 | |
| **05-SO-129-0-2 (1203203-11 ) mg/Kg dry** | | | | Lab File ID: 088F8801.D | | Analyzed: 04/06/12 12:29 | | |
| 2-Fluorobiphenyl | 3.477 | 104 | 50 - 150 | 9.1 | 9.136 | -0.0360 | +/-0.050 | |
| o-Terphenyl | 3.477 | 102 | 35 - 140 | 11.27 | 11.32 | -0.0500 | +/-0.050 | |
| **Calibration Check (2D09715-CCV7 ) mg/L** | | | | Lab File ID: 089F8901.D | | Analyzed: 04/06/12 13:02 | | |
| 2-Fluorobiphenyl | 25.00 | 109 | 75 - 125 | 9.1 | 9.136 | -0.0360 | +/-0.050 | |
| o-Terphenyl | 25.00 | 112 | 75 - 125 | 11.273 | 11.32 | -0.0470 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D10307 | Instrument: | GL-GCFID2 |
| | | Calibration: | 2097002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **Calibration Check (2D10307-CCV1 ) mg/L** | | | | Lab File ID: 002F0201.D | | Analyzed: 04/11/12 10:51 | | |
| 2-Fluorobiphenyl | 25.00 | 97.9 | 75 - 125 | 9.123 | 9.123 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 25.00 | 106 | 75 - 125 | 11.296 | 11.296 | 0.0000 | +/-0.050 | |
| **Blank (2C29009-BLK1 ) mg/L** | | | | Lab File ID: 003F0301.D | | Analyzed: 04/11/12 11:25 | | |
| 2-Fluorobiphenyl | 0.05000 | 81.3 | 50 - 150 | 9.123 | 9.123 | 0.0000 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 84.8 | 82 - 142 | 11.293 | 11.296 | -0.0030 | +/-0.050 | |
| **LCS (2C29009-BS1 ) mg/L** | | | | Lab File ID: 004F0401.D | | Analyzed: 04/11/12 11:58 | | |
| 2-Fluorobiphenyl | 0.05000 | 85.7 | 50 - 150 | 9.12 | 9.123 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 92.8 | 82 - 142 | 11.28 | 11.296 | -0.0160 | +/-0.050 | |
| **LCS Dup (2C29009-BSD1 ) mg/L** | | | | Lab File ID: 005F0501.D | | Analyzed: 04/11/12 12:32 | | |
| 2-Fluorobiphenyl | 0.05000 | 75.8 | 50 - 150 | 9.12 | 9.123 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 82.4 | 82 - 142 | 11.296 | 11.296 | 0.0000 | +/-0.050 | |
| **FB-03-27-1201 (1203203-19 ) mg/L** | | | | Lab File ID: 007F0701.D | | Analyzed: 04/11/12 13:39 | | |
| 2-Fluorobiphenyl | 0.05000 | 107 | 50 - 150 | 9.12 | 9.123 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 0.05000 | 114 | 82 - 142 | 11.293 | 11.296 | -0.0030 | +/-0.050 | |
| **Calibration Check (2D10307-CCV2 ) mg/L** | | | | Lab File ID: 008F0801.D | | Analyzed: 04/11/12 14:12 | | |
| 2-Fluorobiphenyl | 25.00 | 98.2 | 75 - 125 | 9.12 | 9.123 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 25.00 | 107 | 75 - 125 | 11.296 | 11.296 | 0.0000 | +/-0.050 | |
| **Blank (2D03014-BLK1 ) mg/Kg wet** | | | | Lab File ID: 009F0901.D | | Analyzed: 04/11/12 14:45 | | |
| 2-Fluorobiphenyl | 3.333 | 74.6 | 50 - 150 | 9.12 | 9.123 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 3.333 | 75.1 | 35 - 140 | 11.286 | 11.296 | -0.0100 | +/-0.050 | |
| **LCS (2D03014-BS1 ) mg/Kg wet** | | | | Lab File ID: 010F1001.D | | Analyzed: 04/11/12 15:19 | | |
| 2-Fluorobiphenyl | 3.333 | 86.2 | 50 - 150 | 9.12 | 9.123 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 3.333 | 92.9 | 35 - 140 | 11.286 | 11.296 | -0.0100 | +/-0.050 | |
| **FD-03-27-1202 (1203203-18 ) mg/Kg dry** | | | | Lab File ID: 013F1301.D | | Analyzed: 04/11/12 16:59 | | |
| 2-Fluorobiphenyl | 3.578 | 84.8 | 50 - 150 | 9.12 | 9.123 | -0.0030 | +/-0.050 | |
| o-Terphenyl | 3.578 | 92.6 | 35 - 140 | 11.286 | 11.296 | -0.0100 | +/-0.050 | |
| **Matrix Spike (2D03014-MS1 ) mg/Kg dry** | | | | Lab File ID: 014F1401.D | | Analyzed: 04/11/12 17:32 | | |
| 2-Fluorobiphenyl | 3.602 | 86.1 | 50 - 150 | 9.116 | 9.123 | -0.0070 | +/-0.050 | |
| o-Terphenyl | 3.602 | 93.4 | 35 - 140 | 11.286 | 11.296 | -0.0100 | +/-0.050 | |
| **Matrix Spike Dup (2D03014-MSD1 ) mg/Kg dry** | | | | Lab File ID: 015F1501.D | | Analyzed: 04/11/12 18:05 | | |
| 2-Fluorobiphenyl | 3.441 | 84.9 | 50 - 150 | 9.113 | 9.123 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 3.441 | 90.5 | 35 - 140 | 11.263 | 11.296 | -0.0330 | +/-0.050 | |

# SURROGATE STANDARD RECOVERY AND RT SUMMARY

## FLPRO

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Sequence: | 2D10307 | Instrument: | GL-GCFID2 |
| | | Calibration: | 2097002 |

| Surrogate Compound | Spike Level | % Recovery | Recovery Limits | RT | CCV RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **05-SO-129-4-6 (1203203-12 ) mg/Kg dry** | | | | Lab File ID: 017F1701.D | | Analyzed: 04/11/12 19:12 | | |
| 2-Fluorobiphenyl | 3.820 | 83.4 | 50 - 150 | 9.116 | 9.123 | -0.0070 | +/-0.050 | |
| o-Terphenyl | 3.820 | 89.2 | 35 - 140 | 11.273 | 11.296 | -0.0230 | +/-0.050 | |
| **05-SO-130-0-2 (1203203-13 ) mg/Kg dry** | | | | Lab File ID: 018F1801.D | | Analyzed: 04/11/12 19:45 | | |
| 2-Fluorobiphenyl | 3.452 | 85.9 | 50 - 150 | 9.116 | 9.123 | -0.0070 | +/-0.050 | |
| o-Terphenyl | 3.452 | 88.0 | 35 - 140 | 11.276 | 11.296 | -0.0200 | +/-0.050 | |
| **05-SO-130-4-6 (1203203-14 ) mg/Kg dry** | | | | Lab File ID: 019F1901.D | | Analyzed: 04/11/12 20:18 | | |
| 2-Fluorobiphenyl | 3.635 | 75.3 | 50 - 150 | 9.116 | 9.123 | -0.0070 | +/-0.050 | |
| o-Terphenyl | 3.635 | 81.7 | 35 - 140 | 11.276 | 11.296 | -0.0200 | +/-0.050 | |
| **05-SO-131-0-2 (1203203-15 ) mg/Kg dry** | | | | Lab File ID: 020F2001.D | | Analyzed: 04/11/12 20:51 | | |
| 2-Fluorobiphenyl | 3.463 | 87.7 | 50 - 150 | 9.113 | 9.123 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 3.463 | 103 | 35 - 140 | 11.263 | 11.296 | -0.0330 | +/-0.050 | |
| **05-SO-131-4-6 (1203203-16 ) mg/Kg dry** | | | | Lab File ID: 021F2101.D | | Analyzed: 04/11/12 21:25 | | |
| 2-Fluorobiphenyl | 3.485 | 82.5 | 50 - 150 | 9.113 | 9.123 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 3.485 | 91.9 | 35 - 140 | 11.26 | 11.296 | -0.0360 | +/-0.050 | |
| **FD-03-27-1201 (1203203-17 ) mg/Kg dry** | | | | Lab File ID: 022F2201.D | | Analyzed: 04/11/12 21:58 | | |
| 2-Fluorobiphenyl | 3.467 | 95.1 | 50 - 150 | 9.113 | 9.123 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 3.467 | 90.9 | 35 - 140 | 11.266 | 11.296 | -0.0300 | +/-0.050 | |
| **Calibration Check (2D10307-CCV3 ) mg/L** | | | | Lab File ID: 023F2301.D | | Analyzed: 04/11/12 22:31 | | |
| 2-Fluorobiphenyl | 25.00 | 104 | 75 - 125 | 9.113 | 9.123 | -0.0100 | +/-0.050 | |
| o-Terphenyl | 25.00 | 109 | 75 - 125 | 11.263 | 11.296 | -0.0330 | +/-0.050 | |

# SAUFLEY FIELD
# SOIL DATA
# 1203203

| FRACTION | CHEMICAL | FD-03-27-1201 | UNITS | 05-SO-130-4-6 | RPD | D |
|---|---|---|---|---|---|---|
| PAH | BENZO(B)FLUORANTHENE | 6.12 J | UG/KG | ND | 200.00 | 6.12 |
| PAH | BENZO(G,H,I)PERYLENE | 5.98 J | UG/KG | ND | 200.00 | 5.98 |
| PAH | BENZO(K)FLUORANTHENE | 4.48 J | UG/KG | ND | 200.00 | 4.48 |
| PAH | CHRYSENE | 3.68 J | UG/KG | ND | 200.00 | 3.68 |
| PAH | FLUORANTHENE | 4.08 J | UG/KG | ND | 200.00 | 4.08 |
| PAH | INDENO(1,2,3-CD)PYRENE | 5.56 J | UG/KG | ND | 200.00 | 5.56 |
| PAH | PYRENE | 4.04 J | UG/KG | ND | 200.00 | 4.04 |

N/A <3XR.L.

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

# SAUFLEY FIELD
# SOIL DATA
# 1203203

| FRACTION | CHEMICAL | FD-03-27-1202 | UNITS | 05-SO-130-0-2 | RPD | D |
|---|---|---|---|---|---|---|
| PAH | ACENAPHTHYLENE | 23.7 | UG/KG | 38.1 | 46.60 | 14.40 |
| PAH | ANTHRACENE | 5.76 J | UG/KG | 10.8 | 60.87 | 5.04 |
| PAH | BENZO(A)ANTHRACENE | 40.5 | UG/KG | 87.6 | 73.54 | 47.10 |
| PAH | BENZO(A)PYRENE | 110 | UG/KG | 203 | 59.42 | 93.00 |
| PAH | BENZO(B)FLUORANTHENE | 122 | UG/KG | 216 | 55.62 | 94.00 |
| PAH | BENZO(G,H,I)PERYLENE | 122 | UG/KG | 183 | 40.00 | 61.00 |
| PAH | BENZO(K)FLUORANTHENE | 86.5 | UG/KG | 162 | 60.76 | 75.50 |
| PAH | CHRYSENE | 56.4 | UG/KG | 115 | 68.38 | 58.60 |
| PAH | DIBENZO(A,H)ANTHRACENE | 28.2 | UG/KG | 53.7 | 62.27 | 25.50 |
| PAH | FLUORANTHENE | 44 | UG/KG | 114 | 88.61 | 70.00 |
| PAH | INDENO(1,2,3-CD)PYRENE | 99.3 | UG/KG | 167 | 50.84 | 67.70 |
| PAH | PHENANTHRENE | 6.48 J | UG/KG | 9.19 | 34.59 | 2.71 |
| PAH | PYRENE | 62.7 | UG/KG | 143 | 78.07 | 80.30 |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

# SAUFLEY FIELD
# SOIL DATA
# 1203203

| FRACTION | CHEMICAL | FD-03-27-1202 | UNITS | 05-SO-130-0-2 | RPD | D |
|---|---|---|---|---|---|---|
| PET | TPH (C08-C40) | 29 J | MG/KG | 12 J | 82.93 | 17.00 N/A <2XR.L. |

**Current RPD Quality Control Limit: 50 %.**
**Shaded cells indicate RPDs that exceed the applicable quality control limit.**

## Kalinyak, Joseph

**From:** Smith, Larry
**Sent:** Monday, May 21, 2012 11:42 AM
**To:** Kalinyak, Joseph
**Subject:** RE: Bronson Field Duplicates, CTO JM51 Round 2

Joe,

Regarding your query in the email below.

The duplicates match the samples as follows:

FD03271201 duplicate of 05-SO-13-4-6-03/12
FD03271202 duplicate of 05-SO-13-0-2-03/12

Larry

---

**From:** Kalinyak, Joseph
**Sent:** Thursday, May 17, 2012 5:45 PM
**To:** Smith, Larry
**Subject:** RE: Bronson Field Duplicates, CTO JM51 Round 2

Larry,

For the following please re-check for the field duplicate samples... the current selections as listed fail for all analytes for the samples ... it just does not look right.

Project 02748 SDG 1203202 CTO JM26

Site 5 Saufly Field
FD03271201 duplicate of 05-SO-13-0-2-03/12
FD03271202 duplicate of 05-SO-13-4-6-03/12

Thanks,

Joe

---

**From:** Smith, Larry
**Sent:** Wednesday, May 09, 2012 4:43 PM
**To:** Kalinyak, Joseph
**Subject:** Re: Bronson Field Duplicates, CTO JM51 Round 2

Sorry Joe,

**PAH CALCULATION**

| | SAMPLE | | |
|---|---|---|---|
| | 05-SO-130-0-2 | | |
| TARGET ANALYTE | benzo(a)anthracene | | |
| ANALYTE RESPONSE | 115615 | | |
| INTERNAL STANDARD | phenanthrene-d10 | | |
| I.S. RESPONSE | 505555 | | |
| I.S. CONCENTRATION | 4 | ng/ul | |
| ANALYTE CAL. RF | 0.7213 | | |
| DILUTION FACTOR (DF) | 1 | | |
| WEIGHT SAMPLE | 15.4 | grams | |
| SOLIDS (percent /100) | 0.941 | | |
| FINAL VOLUME | 1000 | µL | |
| INJECTION VOLUME | 1 | µL | |
| CORRECTION FACTOR CF1 | 1000 | | |
| | 0.65981426 | on column | |
| (ANALYTE RESPONSE) X ( I.S. CONCENTRATION) X DF X FINAL VOL.X CF1 | = | 87.5144 | ug/kg |
| (I.S. RESPONSE) X (CAL. R.F.) X WEIGHT (gms) X SOLIDS x INJ. VOL. | | | |

Data File: \\ELABNSH04\DD\chem\bna4.i\040612B4E.b\0320313.D
Report Date: 07-Apr-2012 14:50

Laboratory Name

Data file : \\ELABNSH04\DD\chem\bna4.i\040612B4E.b\0320313.D
Lab Smp Id: 1203203-13 Client Smp ID: 05-SO-130-0-2
Inj Date : 07-APR-2012 03:00 MS Autotune Date: 15-FEB-2012 10:23
Operator : ADM Inst ID: bna4.i
Smp Info : 1203203-13;1;15;1000;1;ug/Kg;30-MAR-2012
Misc Info : ;0;;;;2C30006;pahmisc.sub;
Comment :
Method : \\ELABNSH04\DD\chem\bna4.i\040612B4E.b\IXBN4LOW.m
Meth Date : 07-Apr-2012 14:48 rward Quant Type: ISTD
Cal Date : 29-MAR-2012 19:34 Cal File: SEQ-CAL7.D
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: pahmisc.sub
Target Version: 4.04
Processing Host: TARGET04_VM

Concentration Formula: Amt * DF * Uf * Vt*Vi/(Amt * Vi * (Solids/100))

| Name | Value | Description |
|---|---|---|
| DF | 1.000 | Dilution Factor |
| Uf | 1.000 | ng unit correction factor |
| Vt | 1000.000 | Volume of final extract (uL)(1000 low, 2 |
| Amt | 15.000 | Mass of initial extraction |
| Vi | 0.200 | Volume injected (uL) |
| Solids | 100.000 | Percent Solids |

MU 10/12

Rev 4-7-12

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/ul) | FINAL (ug/Kg) |
|---|---|---|---|---|---|---|---|
| * 102 Phenanthrene-d10 | 188 | 11.120 | 11.120 | (1.000) | 505555 | 4.00000 | |
| $ 74 2-Fluorobiphenyl | 172 | 8.498 | 8.498 | (0.764) | 4550096 | 34.9774 | 2332 |
| 77 Acenaphthylene | 152 | 9.130 | 9.131 | (0.821) | 90676 | 0.55196 | 36.80 |
| 111 Phenanthrene | 178 | 11.148 | 11.148 | (1.002) | 19022 | 0.13317 | 8.878 |
| 112 Anthracene | 178 | 11.204 | 11.204 | (1.008) | 21443 | 0.15623 | 10.42 |
| 116 Fluoranthene | 202 | 12.607 | 12.607 | (1.134) | 220216 | 1.64475 | 109.6 |
| 134 Pyrene | 202 | 12.886 | 12.886 | (1.159) | 278536 | 2.07270 | 138.2 |
| * 154 Perylene-d12 | 264 | 16.921 | 16.921 | (1.000) | 245893 | 4.00000 | |
| $ 135 Terphenyl-d14 | 244 | 13.100 | 13.091 | (1.178) | 4548880 | 58.9462 | 3930 |
| 138 Benzo(a)anthracene | 228 | 14.522 | 14.522 | (1.306) | 115615 | 1.26815 | 84.54 |
| 139 Chrysene | 228 | 14.587 | 14.588 | (1.312) | 148990 | 1.66790 | 111.2 |
| 156 Benzo(b)fluoranthene | 252 | 16.289 | 16.289 | (0.963) | 239158 | 3.12820 | 208.5(M) |
| 157 Benzo(k)fluoranthene | 252 | 16.317 | 16.326 | (0.964) | 195874 | 2.34652 | 156.4(M) |

# CONTINUING CALIBRATION CHECK

## SW8270D

| | | | |
|---|---|---|---|
| Laboratory: | Empirical Laboratories, LLC | SDG: | 1203203 |
| Client: | Tetra Tech NUS, Inc. (T010) | Project: | NAS Pensacola CTOJM26 Saufley 2011 |
| Instrument ID: | MS-BNA4 | Calibration: | 2090005 |
| Lab File ID: | SEQ-CCV2.D | Calibration Date: | 03/30/12 15:08 |
| Sequence: | 2D09801 | Injection Date: | 04/07/12 |
| Lab Sample ID: | 2D09801-CCV1 | Injection Time: | 00:41 |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DIFF / DRIFT | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN (#) | CCV | LIMIT (#) |
| Acenaphthene | A | 5.000 | 4.432 | 0.900025 | 0.7977948 | | -11.4 | 20 |
| Acenaphthylene | A | 5.000 | 4.630 | 1.299801 | 1.203748 | | -7.4 | 20 |
| Anthracene | A | 5.000 | 4.888 | 1.085951 | 1.061719 | | -2.2 | 20 |
| Benzo(a)anthracene | A | 5.000 | 4.730 | 0.7213317 | 0.6824648 | | -5.4 | 20 |
| Benzo(a)pyrene | A | 5.000 | 4.808 | 1.03145 | 0.9917963 | | -3.8 | 20 |
| Benzo(b)fluoranthene | A | 5.000 | 5.324 | 1.243667 | 1.3244 | | 6.5 | 20 |
| Benzo(g,h,i)perylene | A | 5.000 | 5.074 | 0.8192619 | 0.8313646 | | 1.5 | 20 |
| Benzo(k)fluoranthene | A | 5.000 | 4.738 | 1.357895 | 1.286671 | | -5.2 | 20 |
| Chrysene | A | 5.000 | 4.733 | 0.7067705 | 0.6690084 | | -5.3 | 20 |
| Dibenz(a,h)anthracene | A | 5.000 | 4.833 | 0.7256853 | 0.7014959 | | -3.3 | 20 |
| Fluoranthene | A | 5.000 | 5.376 | 1.05935 | 1.13891 | | 7.5 | 20 |
| Fluorene | A | 5.000 | 4.850 | 0.8702264 | 0.8441285 | | -3.0 | 20 |
| Indeno(1,2,3-cd)pyrene | A | 5.000 | 5.046 | 0.8916471 | 0.8998313 | | 0.9 | 20 |
| 1-Methylnaphthalene | A | 5.000 | 4.337 | 0.8785178 | 0.762068 | | -13.3 | 20 |
| 2-Methylnaphthalene | A | 5.000 | 4.462 | 0.910624 | 0.8126418 | | -10.8 | 20 |
| Naphthalene | A | 5.000 | 4.025 | 1.529264 | 1.231172 | | -19.5 | 20 |
| Phenanthrene | A | 5.000 | 4.873 | 1.130163 | 1.101414 | | -2.5 | 20 |
| Pyrene | A | 5.000 | 5.259 | 1.063253 | 1.118254 | | 5.2 | 20 |
| 2-Fluorobiphenyl | A | 5.000 | 4.435 | 1.029259 | 0.9130464 | | -11.3 | 20 |
| Terphenyl-d14 | A | 5.000 | 5.424 | 0.6105765 | 0.6623428 | | 8.5 | 20 |

# Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

# PREPARATION BENCH SHEET

2C30006

**Empirical Laboratories, LLC**

**Printed: 4/16/2012 11:21:32AM**

**Instrument:**

**Matrix: Solid** **Prepared using: EXT - EXT_3546** **Surrogate used: 12C0642**

| Lab Number | Cont ID | Analysis | Prepared | Initial (g) | Final (mL) | Spike ID | Source ID | ul Spike | ul Surrogate | PH | Extraction Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1203203-05 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.5 | 1 | | | | 500 | NA | |
| 1203203-06 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.1 | 1 | | | | 500 | NA | |
| 1203203-07 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.2 | 1 | | | | 500 | NA | |
| 1203203-08 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15 | 1 | | | | 500 | NA | |
| 1203203-09 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.3 | 1 | | | | 500 | NA | |
| 1203203-10 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.2 | 1 | | | | 500 | NA | |
| 1203203-11 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.6 | 1 | | | | 500 | NA | |
| 1203203-12 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15 | 1 | | | | 500 | NA | |
| 1203203-13 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.4 | 1 | | | | 500 | NA | |
| 1203203-14 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.8 | 1 | | | | 500 | NA | |
| 1203203-15 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.4 | 1 | | | | 500 | NA | |
| 1203203-16 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15 | 1 | | | | 500 | NA | |
| 1203203-17 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.3 | 1 | | | | 500 | NA | |
| 1203203-18 | A | SMS_PAH_8270D_LOW | 03/30/2012 | 15.5 | 1 | | | | 500 | NA | |
| 2C30006-BLK1 | | QC | 03/30/2012 | 15 | 1 | | | 0 | 500 | NA | ll pah |
| 2C30006-BS1 | | QC | 03/30/2012 | 15 | 1 | 12C0330 | | 1000 | 500 | NA | ll pah |
| 2C30006-MS1 | | QC | 03/30/2012 | 15.5 | 1 | 12C0330 | 1203203-05 | 1000 | 500 | NA | ll pah |
| 2C30006-MSD1 | | QC | 03/30/2012 | 15.6 | 1 | 12C0330 | 1203203-05 | 1000 | 500 | NA | ll pah |

**Reagents Used:**

| Standard | Description |
|---|---|
| 12C0129 | Sodium Sulfate Anhydrous |
| 12C0617 | Methylene Chloride |

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

416

1203203

**Tetra Tech INC** **INTERNAL CORRESPONDENCE**

| | | | |
|---|---|---|---|
| **TO:** | **G. POPE** | **DATE:** | **MAY 24, 2012** |
| **FROM:** | **JOSEPH KALINYAK** | **COPIES:** | **DV FILE** |

**SUBJECT:** **ORGANIC DATA VALIDATION – TPH SPECIATION ANALYSIS**
**SAUFLEY FIELD, CTO JM26**
**SDG 120328.06**

**SAMPLES:** 3 / Soil / TPH Aliphatics & Aromatic Speciation

05-SO-132-0-2 05-SO-132-2-4 05-SO-132-4-6

## OVERVIEW

The sample set for Saufley Field, CTO JM26, SDG 120328.06 consisted of three (3) soil samples. All samples were analyzed for total petroleum hydrocarbon aliphatic & aromatic speciation as listed above. No field duplicate samples were included in this sample delivery group (SDG).

The samples were collected by TetraTech on March 27, 2012 and analyzed by SunLabs Inc. All analyses were conducted using the Total Petroleum Hydrocarbon Criteria Working Group (TPHCWG), analytical and reporting protocols.

The data contained in this SDG were fully validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • Initial and Continuing Calibration
* • Laboratory Blank Analyses
* • Blank Spike/Blank Spike Duplicate Results
* • Matrix Spike/Matrix Spike Duplicate Results
* • Compound Quantitation
* • Compound Identification
* • Detection Limits

The symbol (*) indicates that quality control criteria were met for this parameter. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

## TPH AROMATICS & ALIPHATICS

No issues were identified.

## ADDITIONAL COMMENTS

Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit.

Sample results were reported to the method detection limits (MDL).

**EXECUTIVE SUMMARY**

**Laboratory Performance Issues:** No issues were identified.

**Other factors affecting data quality:** Positive results less than the reporting limit (RL) were qualified estimated, (J), due to uncertainty near the method detection limit (MDL).

The data for these analyses were reviewed with reference to the Total Petroleum Hydrocarbon Criteria Working Group procedure, EPA Functional Guidelines for Organic Data Validation (October 1999), and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).

Tetra Tech
Joseph Kalinyak
Chemist/Data Validator

TetraTech
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

# APPENDIX A

## QUALIFIED ANALYTICAL RESULTS

## Value Qualifier Key (Val Qual)

J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

UJ – The result is an estimated non-detected quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U - Value is a non-detect as reported by the laboratory.

UR – Non-detected result is considered rejected, (UR), as a result of technical non-compliances.

## DATA QUALIFICATION CODE (QUAL CODE)

**Qualifier Codes:**

| | | |
|---|---|---|
| A | = | Lab Blank Contamination |
| B | = | Field Blank Contamination |
| C | = | Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.) |
| C01 | = | GC/MS Tuning Noncompliance |
| D | = | MS/MSD Recovery Noncompliance |
| E | = | LCS/LCSD Recovery Noncompliance |
| F | = | Lab Duplicate Imprecision |
| G | = | Field Duplicate Imprecision |
| H | = | Holding Time Exceedance |
| I | = | ICP Serial Dilution Noncompliance |
| J | = | ICP PDS Recovery Noncompliance; MSA's $r < 0.995$ |
| K | = | ICP Interference - includes ICS % R Noncompliance |
| L | = | Instrument Calibration Range Exceedance |
| M | = | Sample Preservation Noncompliance |
| N | = | Internal Standard Noncompliance |
| N01 | = | Internal Standard Recovery Noncompliance Dioxins |
| N02 | = | Recovery Standard Noncompliance Dioxins |
| N03 | = | Clean-up Standard Noncompliance Dioxins |
| O | = | Poor Instrument Performance (i.e., base-time drifting) |
| P | = | Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics) |
| Q | = | Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.) |
| R | = | Surrogates Recovery Noncompliance |
| S | = | Pesticide/PCB Resolution |
| T | = | % Breakdown Noncompliance for DDT and Endrin |
| U | = | RPD between columns/detectors >40% for positive results determined via GC/HPLC |
| V | = | Non-linear calibrations; correlation coefficient $r < 0.995$ |
| W | = | EMPC result |
| X | = | Signal to noise response drop |
| Y | = | Percent solids <30% |
| Z | = | Uncertainty at 2 sigma deviation is less than sample activity |
| Z1 | = | Tentatively Identified Compound considered presumptively present |
| Z2 | = | Tentatively Identified Compound column bleed |

| PROJ_NO: 02748 | NSAMPLE | 05-SO-132-0-2 | | | 05-SO-132-2-4 | | | 05-SO-132-4-6 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| SDG: 120328.06 | LAB_ID | 140809 | | | 140810 | | | 140811 | | |
| FRACTION: PET | SAMP_DATE | 3/27/2012 | | | 3/27/2012 | | | 3/27/2012 | | |
| MEDIA: SOIL | QC_TYPE | NM | | | NM | | | NM | | |
| | UNITS | MG/KG | | | MG/KG | | | MG/KG | | |
| | PCT_SOLIDS | 88.0 | | | 87.0 | | | 93.0 | | |
| | DUP_OF | | | | | | | | | |
| PARAMETER | | RESULT | VQL | QLCD | RESULT | VQL | QLCD | RESULT | VQL | QLCD |
| C10-C12 ALIPHATICS | | 270 | | | 290 | | | 37 | U | |
| C10-C12 AROMATICS | | 140 | | | 180 | | | 29 | U | |
| C12-C16 ALIPHATICS | | 450 | | | 840 | | | 37 | U | |
| C12-C16 AROMATICS | | 280 | | | 410 | | | 29 | U | |
| C16-C21 AROMATICS | | 140 | | | 290 | | | 29 | U | |
| C16-C35 ALIPHATICS | | 160 | | | 1800 | | | 37 | U | |
| C21-C35 AROMATICS | | 31 | U | | 31 | U | | 29 | U | |
| C5-C6 ALIPHATICS | | 39 | U | | 39 | U | | 37 | U | |
| C5-C7 AROMATICS | | 34 | J | P | 74 | J | P | 29 | U | |
| C6-C8 ALIPHATICS | | 400 | | | 1800 | | | 37 | U | |
| C7-C8 AROMATICS | | 31 | U | | 180 | | | 48 | J | P |
| C8-C10 ALIPHATICS | | 490 | | | 790 | | | 37 | U | |
| C8-C10 AROMATICS | | 45 | J | P | 120 | | | 29 | U | |

# APPENDIX B

## RESULTS AS REPORTED BY THE LABORATORY

# Report of Laboratory Analysis

| SunLabs Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description: Saufley Field |

April 4, 2012

SunLabs Sample Number **140809**
Sample Designation **05-SO-132-0-2**

Matrix: Soil
Date Collected: 03/27/12 10:45
Date Received: 03/28/12 10:10

| Parameters | Method | Units | Results | Dil Factor | MDL | PQL | CAS Number | Date/Time Analyzed | Date/Time Prep |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Moisture** | | | | | | | | | |
| % Moisture | 160.3M | % | 12 | | | 0.11 | | 04/02/12 06:37 | |
| **Total Petroleum Hydrocarbon Criteria Working Group** | | | | | | | | | |
| Date Extracted | TPHCWG | | 03/28/12 | | | | | | 03/28/12 13:00 |
| >C5-C7 Aromatic Hydrocarbons | TPHCWG | mg/kg | 34 I | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C7-C8 Aromatic Hydrocarbons | TPHCWG | mg/kg | 31 U | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C8-C10 Aromatic Hydrocarbons | TPHCWG | mg/kg | 45 I | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C10-C12 Aromatic Hydrocarbons | TPHCWG | mg/kg | 140 | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C12-C16 Aromatic Hydrocarbons | TPHCWG | mg/kg | 280 | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C16-C21 Aromatic Hydrocarbons | TPHCWG | mg/kg | 140 | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C21-C35 Aromatic Hydrocarbons | TPHCWG | mg/kg | 31 U | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C5-C6 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 39 U | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C6-C8 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 400 | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C8-C10 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 490 | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C10-C12 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 270 | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C12-C16 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 450 | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C16-C35 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 160 | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |

FORM I
ORGANICS ANALYSIS DATA SHEET

Lab Name:__SunLabs_ Contract:_N62470-08-D-1001__

Lab Code:05-SO-132-0-2 Case No.:___JM26 Mod. Ref. No.:_____ SDG No.:_____

Matrix:Solid Lab Sample ID:__140809

Sample wt/vol:___10g___ Lab File ID:_____

Level: (low/med)__Low__ Extraction: (type)_____

% Moisture:___12_____ Decanted: (Y/N)__N_____ Date Received:_3/28/12

Concentrated Extract Volume:_10000_(uL) Date Extracted:__ 03/28/12

Injection Volume:_____1_____(uL) Date analyzed:__3/30/12

GPC cleanup: (Y/N)___N_____ pH:_____ Dilution Factor:___1_____

| CAS NO. | Compound | Concentration Units: (ug/L or ug/kg) | Q |
|---|---|---|---|
| | >C5-C7 aromatic | 34000 | I |
| | >C7-C8 aromatic | 31000 | U |
| | >C8-C10 aromatic | 45000 | I |
| | >C10-C12 aromatic | 140000 | |
| | >C12-C16 aromatic | 280000 | |
| | >C16-C21 aromatic | 140000 | |
| | >C21-C35 aromatic | 31000 | U |
| | >C5-C6 aliphatic | 39000 | U |
| | >C6-C8 aliphatic | 400000 | |
| | >C8-C10 aliphatic | 490000 | |
| | >C10-C12 aliphatic | 270000 | |
| | >C12-C16 aliphatic | 450000 | |
| | >C16-C35 aliphatic | 160000 | |
| | | | |
| | | | |
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# Report of Laboratory Analysis

| SunLabs Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description: Saufley Field |

April 4, 2012

SunLabs Sample Number **140810**
Sample Designation **05-SO-132-2-4**

Matrix: Soil
Date Collected: 03/27/12 10:50
Date Received: 03/28/12 10:10

| Parameters | Method | Units | Results | | Dil Factor | MDL | PQL | CAS Number | Date/Time Analyzed | Date/Time Prep |
|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Moisture** | | | | | | | | | | |
| % Moisture | 160.3M | % | 13 | | | | 0.11 | | 04/02/12 06:37 | |
| **Total Petroleum Hydrocarbon Criteria Working Group** | | | | | | | | | | |
| Date Extracted | TPHCWG | | 03/28/12 | | | | | | | 03/28/12 13:00 |
| >C5-C7 Aromatic Hydrocarbons | TPHCWG | mg/kg | 74 | I | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C7-C8 Aromatic Hydrocarbons | TPHCWG | mg/kg | 180 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C8-C10 Aromatic Hydrocarbons | TPHCWG | mg/kg | 120 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C10-C12 Aromatic Hydrocarbons | TPHCWG | mg/kg | 180 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C12-C16 Aromatic Hydrocarbons | TPHCWG | mg/kg | 410 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C16-C21 Aromatic Hydrocarbons | TPHCWG | mg/kg | 290 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C21-C35 Aromatic Hydrocarbons | TPHCWG | mg/kg | 31 | U | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C5-C6 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 39 | U | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C6-C8 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 1800 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C8-C10 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 790 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C10-C12 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 290 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C12-C16 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 840 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C16-C35 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 1800 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |

FORM I
ORGANICS ANALYSIS DATA SHEET

Lab Name:__SunLabs_ Contract:_N62470-08-D-1001__

Lab Code:05-SO-132-2-4 Case No.:___JM26 Mod. Ref. No.:_____ SDG No.:_____

Matrix:Solid Lab Sample ID:__140810

Sample wt/vol:___10g___ Lab File ID:_____

Level: (low/med)__Low__ Extraction: (type)_____

% Moisture:__13_____ Decanted: (Y/N)__N_____ Date Received:_3/28/12

Concentrated Extract Volume:_10000_(uL) Date Extracted:___ 03/28/12

Injection Volume:_____1_____(uL) Date analyzed:__4/2/12

GPC cleanup: (Y/N)___N_____ pH:_____ Dilution Factor:___1_____

| CAS NO. | Compound | Concentration Units: (ug/L or ug/kg) | Q |
|---|---|---|---|
| | >C5-C7 aromatic | 74000 | I |
| | >C7-C8 aromatic | 180000 | |
| | >C8-C10 aromatic | 120000 | |
| | >C10-C12 aromatic | 180000 | |
| | >C12-C16 aromatic | 410000 | |
| | >C16-C21 aromatic | 290000 | |
| | >C21-C35 aromatic | 31000 | U |
| | >C5-C6 aliphatic | 39000 | U |
| | >C6-C8 aliphatic | 1800000 | |
| | >C8-C10 aliphatic | 790000 | |
| | >C10-C12 aliphatic | 290000 | |
| | >C12-C16 aliphatic | 840000 | |
| | >C16-C35 aliphatic | 1800000 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# Report of Laboratory Analysis

| SunLabs Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description: Saufley Field |

April 4, 2012

SunLabs Sample Number **140811**
Sample Designation **05-SO-132-4-6**

Matrix: Soil
Date Collected: 03/27/12 10:55
Date Received: 03/28/12 10:10

| Parameters | Method | Units | Results | Dil Factor | MDL | PQL | CAS Number | Date/Time Analyzed | Date/Time Prep |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Moisture** | | | | | | | | | |
| % Moisture | 160.3M | % | 7 | | | 0.11 | | 04/02/12 06:37 | |
| **Total Petroleum Hydrocarbon Criteria Working Group** | | | | | | | | | |
| Date Extracted | TPHCWG | | 03/28/12 | | | | | | 03/28/12 13:00 |
| >C5-C7 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C7-C8 Aromatic Hydrocarbons | TPHCWG | mg/kg | 48 I | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C8-C10 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C10-C12 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C12-C16 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C16-C21 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C21-C35 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C5-C6 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C6-C8 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C8-C10 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C10-C12 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C12-C16 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C16-C35 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |

FORM I
ORGANICS ANALYSIS DATA SHEET

Lab Name:__SunLabs_ Contract:_N62470-08-D-1001__

Lab Code:05-SO-132-4-6 Case No.:___JM26 Mod. Ref. No.:_____ SDG No.:_____

Matrix:Solid Lab Sample ID:__140811

Sample wt/vol:___10g___ Lab File ID:_____

Level: (low/med)__Low__ Extraction: (type)_____

% Moisture:__7_____ Decanted: (Y/N)__N_____ Date Received:_3/28/12

Concentrated Extract Volume:_10000_(uL) Date Extracted:___ 03/28/12

Injection Volume:_____1_____(uL) Date analyzed:__4/2/12

GPC cleanup: (Y/N)___N_____ pH:_____ Dilution Factor:___1_____

| CAS NO. | Compound | Concentration Units: (ug/L or ug/kg) | Q |
|---|---|---|---|
| | >C5-C7 aromatic | 29000 | U |
| | >C7-C8 aromatic | 48000 | I |
| | >C8-C10 aromatic | 29000 | U |
| | >C10-C12 aromatic | 29000 | U |
| | >C12-C16 aromatic | 29000 | U |
| | >C16-C21 aromatic | 29000 | U |
| | >C21-C35 aromatic | 29000 | U |
| | >C5-C6 aliphatic | 37000 | U |
| | >C6-C8 aliphatic | 37000 | U |
| | >C8-C10 aliphatic | 37000 | U |
| | >C10-C12 aliphatic | 37000 | U |
| | >C12-C16 aliphatic | 37000 | U |
| | >C16-C35 aliphatic | 37000 | U |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# APPENDIX C

## SUPPORT DOCUMENTATION

# HOLDTIME

SDG 120328.06

| SORT | UNITS | NSAMPLE | LAB_ID | QC_TYPE | SAMP_DATE | EXTR_DATE | ANAL_DATE | SMP_EXTR | EXTR_ANL | SMP_ANL |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | MG/KG | 05-SO-132-4-6 | 140811 | NM | 3/27/2012 | 3/28/2012 | 4/2/2012 | 1 | 5 | 6 |
| TPH | MG/KG | 05-SO-132-2-4 | 140810 | NM | 3/27/2012 | 3/28/2012 | 4/2/2012 | 1 | 5 | 6 |
| TPH | MG/KG | 05-SO-132-0-2 | 140809 | NM | 3/27/2012 | 3/28/2012 | 3/30/2012 | 1 | 2 | 3 |

# SunLabs, Inc. Chain of Custody

32913

Client Name: Tetra Tech
Contact: Larry Smith
Address: 1558 Village Square Blvd Ste 2, Tallahassee, FL 32309
Phone / Fax: 850-559-2459
E-Mail: Larry.Smith@tetratech.com

SunLabs Project #: 120328.06

Project Name: Sawyer Field
Project #: JM 2le 112G0274
PO #:
Alt Bill To:

| SunLabs Sample # | Sample Description | Sampled Date | Sampled Time | # of Bottles | TRPH Speciation | TPHWG |
|---|---|---|---|---|---|---|
| Bottle Type | | | | | G | |
| Preservative | | | | | I | |
| Matrix | | | | | SO | |
| 140309 | 05-SO-132-0-2 | 27 Mar | 1045 | 1 | 1 | 1 |
| 810 | 05-SO-132-2-4* | | 1050 | 1 | 1 | |
| 811 | 05-SO-132-4-6* | | 1055 | 1 | 1 | |
| | ~~[illegible]~~ WS 27/Mar/12 | | | | | |

Due Date Requested*:

☐ FDEP PreApproval site
☐ ADaPT EDD (PGM:_____)
Facility/Site ID:

Remarks / Comments:
*hold for TRPH Speciation Analysis

Length of Record Retention if other than 5 years:*

Sampler Signature / Date: [signature]

Printed Name / Affiliation: Larry Smith / Tetra Tech

SUNLABS, INC. RESERVES THE RIGHT TO BILL FOR DISPOSAL OF UNUSED/ UNRETURNED SAMPLES AND TO RETURN UNUSED SAMPLES.

| Relinquished By: | Relinquished To: | Date: | Time: |
|---|---|---|---|
| [signature] | UPS | 3/28/12 | 1700 |
| [signature] | FedEx | 27/3/12 | 1600 |
| [signature] | [signature] | 3/28/12 | 1010 |
| | | | |

*Bottle Type Codes:*
GV = Glass Vial; GVS = Low Level Volatile Kit; GA = Glass Amber; T = Tedlar Bag; P = Plastic; O = Other (Specify); S = Soil Jar

*Preservative Codes:*
H = Hydrochloric Acid + Ice; S = Sulfuric Acid + Ice; I = Ice only; VS = MeOH, DFW, + Ice; N = Nitric Acid + Ice; T = Sodium thiosulfate + ice; B = Sodium bisulfite + Ice; O = Other (Specify) _____

*Matrix Codes:*
SO = Soil; SOL = Solid; A = Air; SW = Surface Water; DW = Drinking Water; WS = Waste; WW = Waste Water; GW = Ground Water; W = Water (Blanks); SE = Sediment; O = Other (Specify:_____)

Internal Use Only
Temp upon receipt: 3.5 °C
Received on Ice? (Y) / N / NA

Internal Use Only
*Sample Condition Upon Receipt:*

| | |
|---|---|
| Custody Seals present? | Y / N / NA |
| Custody Seals intact? | Y / N / NA |
| Shipping Bills attached? | Y / N / NA |
| Sample containers intact? | Y / N / NA |
| Samples within holding times? | Y / N / NA |
| Sufficient volume for all analyses? | Y / N / NA |
| Are vials head-space free? | Y / N / NA |
| Proper containers and preservatives? | Y / N / NA |

**SunLabs, Inc.**
5460 Beaumont Center Blvd., Suite 520, Tampa, Florida 33634
Phone: 813-881-9401 / Fax: 813-354-4661
e-mail: Info@SunLabsInc.com www.SunLabsInc.com



* See General Terms and Conditions on Reverse

April 4, 2012

Larry Smith
TetraTech
1558 Village Square Blvd.
Ste 2
Tallahassee, FL 32309

Re: SunLabs Project Number: **120328.06**
Client Project Description: **Saufley Field**

Dear Mr. Smith:

Enclosed is the report of laboratory analysis for the following samples:

| Sample Number | Sample Description | Date Collected | | Date Received |
|---|---|---|---|---|
| 140809 | 05-SO-132-0-2 | 03/27/12 | 10:45 | 03/28/12 |
| 140810 | 05-SO-132-2-4 | 03/27/12 | 10:50 | 03/28/12 |
| 140811 | 05-SO-132-4-6 | 03/27/12 | 10:55 | 03/28/12 |

**Narrative:**

Unless otherwise noted below or in the report and where applicable:
- Samples were received at the proper temperature and analyzed as received.
- Sample condition upon receipt is recorded on the chain-of-custody attached to this report.
- Results for all solid matrices are reported on a dry weight basis.
- Appropriate calibration and QC criteria were satisfactorily met.
- All applicable holding times for analytes have been met.
- Copies of the chains-of-custody, if received, are attached to this report.

Three samples were received on 3/28/12 by SunLabs for TetraTech project Saufley Field, CTO # JM26. Samples were extracted on 3/28/12. Sample 140809 (05-SO-132-0-2) was analyzed first in order to determine if the remaining samples would be analyzed. After checking in with the project manager it was determined the additional 2 samples would need to be analyzed. These samples were analyzed on 4/2/12. All quality control samples were within acceptable ranges.

If you have any questions or comments concerning this report, please do not hesitate to contact us.

Sincerely,

Michael W. Palmer

Michael W. Palmer
Vice President, Laboratory Operations

Enclosures

**Unless Otherwise Noted and Where Applicable:**
The results herein relate only to the items tested or to the samples as received by the laboratory • This report shall not be reproduced except in full, without the written approval of SunLabs • All samples will be disposed of within 60 days of the date of receipt of the samples • All results meet the requirements of the NELAC standards • Uncertainty values are available upon request

# Report of Laboratory Analysis

| SunLabs Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description<br>**Saufley Field** |

April 4, 2012

| Footnotes | |
|---|---|
| ** | *Not NELAC certified for this analyte* |
| I | *The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.* |
| J | *The reported value failed to meet the established quality control criteria for either precision or accuracy(see cover letter for explanation)* |
| LCS | *Laboratory Control Sample* |
| LCSD | *Laboratory Control Sample Duplicate* |
| MB | *Method Blank* |
| MS | *Matrix Spike* |
| MSD | *Matrix Spike Duplicate* |
| NA | *Sample not analyzed at client's request.* |
| p | *SunLabs is not currently NELAC certified for this analyte.* |
| Q | *Sample held beyond the accepted holding time.* |
| RPD | *Relative Percent Difference* |
| U | *Compound was analyzed for but not detected.* |
| V | *Indicates that the analyte was detected in both the sample and the associated method blank.* |
| Z | *Too many colonies were present (TNTC); the numeric value represents the filtration volume.* |

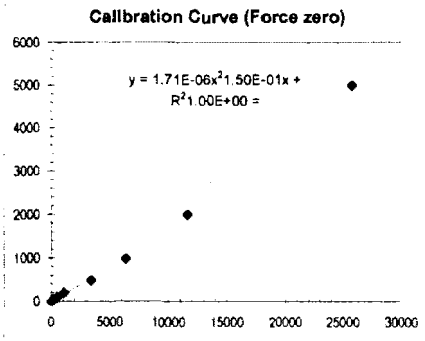
# Quadratic Calculation

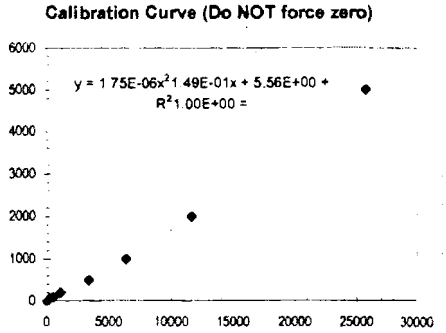
| Method Name | Enter Method | TPHCWG |
|---|---|---|
| Date Analyzed | Enter Date Analyzed | 12/12/11 |

**Calibration Data**

| Std | TPHWG | |
|---|---|---|
| ID | Conc | Response |
| Blank | 0.0 | 0.0 |
| Std 1 | 5.0 | 25.9 |
| Std 2 | 10.0 | 50.7 |
| Std 3 | 20.0 | 115.0 |
| Std 4 | 50.0 | 248.0 |
| Std 5 | 100.0 | 533.0 |
| Std 6 | 200.0 | 1124.0 |
| Std 7 | 500.0 | 3361.0 |
| Std 8 | 1000.0 | 6388.0 |
| Std 9 | 2000.0 | 11607.0 |
| Std 10 | 5000.0 | 25753.0 |
| Slope | | 5.29125183 |

*Fill standards from Low to High. Leave ZERO in both columns for unused standards.*




***Equation:*** $y = ax^2 + bx + c$

**Enter from Graph:** ENTER a > 1.71E-06 ENTER b > 1.50E-01 ENTER c > 0.00E+00

Use Correlation Coefficient from the Cal Curve

| | Response | Calculated Concentration | Dilution | PerCent Moisture | Sample Wt | Final Concentration Wet Weight | Final Concentration (Dry Weight) |
|---|---|---|---|---|---|---|---|
| 5.00 | 180 | 27.0554 | 65.00 | 21 | 10.000 | 175.8601 | 222.6078 |
| CHK STD | 308 | 46.3622 | 65.00 | 21 | 10.000 | 301.3544 | 381.4613 |
| | | | 50.00 | 6 | 10.000 | | |
| | | | 50.00 | 6 | 10.000 | | |
| | | | 65.00 | 23 | 10.000 | | |
| | | | 65.00 | 23 | 10.000 | | |
| | | | 65.00 | 23 | 10.000 | | |
| | | | 50.00 | 23 | 10.000 | | |
| | | | 50.00 | 23 | 10.000 | | |
| | | | 50.00 | 23 | 10.000 | | |
| | | | 50.00 | 23 | 10.000 | | |
| | | | 65.00 | 22 | 10.000 | | |
| | | | 65.00 | 22 | 10.000 | | |
| | | | 65.00 | 22 | 10.000 | | |
| | | | 50.00 | 22 | 10.000 | | |
| | | | 50.00 | 22 | 10.000 | | |
| | | | 50.00 | 22 | 10.000 | | |
| | | | 50.00 | 22 | 10.000 | | |
| | | | 50.00 | 22 | 10.000 | | |
| | | | 50.00 | 22 | 10.000 | | |

*Dilutions: 2 means diluted 1:1; 5 means diluted 1:5*

FORM VI
INITIAL CALIBRATION DATA

Lab Name:__ SunLabs Contract: N62470-08-D-1001

Lab Code:_____ Case No.:__JM26_ Mod. Ref. No.:___ SDG No.:_____

Instrument ID. GC-E Calibration Date:_____ 12/12/11

Calibration Time:_____ 1431

GC Column:_ ZB-XLB-HT ID:___0.25_____ Length:_ 30 m

Lab File ID:_____

| | Concentration | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 5 | 10 | 20 | 50 | 100 | 200 | 500 | 1000 | 2000 | 5000 |
| Compound/Area | 25.9 | 50.7 | 115 | 248 | 533 | 1124 | 3361 | 6388 | 11607 | 25753 |
| | | | | | | | | | | |
| | | | | | | | | | | |
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FORM VIII
ANALYTICAL SEQUENCE

Lab Name:___ SunLabs Contract:_ N62470-08-D-1001

Lab Code:_____ Case No.:___ JM26 Mod. Ref. No.:_____ SDG No.:_____

Instrument ID.:_ GC-E Calibration Date:_ 12/12/11

GC Column:__ ZB-XLB-HT ID:____0.25_____ (mm) Length:____30_____ (m)

The Analytical Sequence of blanks, samples, standards,MS/MSDs, and LCSs is given below:

| Sample No. | Lab ID | Date Analyzed | Time Analyzed |
|---|---|---|---|
| Pentane Blk | | 03/27/12 | 19:22 |
| RT Marker | | 03/27/12 | 19:42 |
| ccv | | 03/27/12 | 20:02 |
| AL method blk | | 03/27/12 | 20:22 |
| AR method blk | | 03/27/12 | 20:41 |
| LCS AL | | 03/27/12 | 21:01 |
| LCS AR | | 03/27/12 | 21:21 |
| LCSD AL | | 03/27/12 | 21:41 |
| LCSD AR | | 03/27/12 | 22:01 |
| MS AL | | 03/27/12 | 22:21 |
| MS AR | | 03/27/12 | 22:41 |
| MSD AL | | 03/27/12 | 23:01 |
| MSD AR | | 03/27/12 | 23:21 |
| ccv | | 03/27/12 | 23:41 |
| 140702 AL | 140702 | 03/28/12 | 0:01 |
| 140702 AR | 140702 | 03/28/12 | 0:21 |
| CCV | | 03/28/12 | 3:20 |
| | | | |
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# Quality Control Data

| Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description: Saufley Field |

April 4, 2012

## Batch No: E4732

Test: **Total Petroleum Hydrocarbon Criteria Working Group**

TestCode: TPHworking group-s

Associated Samples
140809, 140810, 140811

| Compound | Blank | LCS Spike | LCS %Rec | LCSD %Rec | RPD % | --QC Limits-- RPD | LCS | MS Spike | MS %Rec | MSD %Rec | RPD % | --QC Limits-- RPD | MS | Dup RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Parent Sample Number* | | | | | | | | | *140702* | *140702* | | | | | |
| Date Extracted | 03/27/12 | | | | | | | | | | | | | | |
| >C5-C7 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C7-C8 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C8-C10 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C10-C12 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C12-C16 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C16-C21 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C21-C35 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C5-C6 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C6-C8 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C8-C10 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C10-C12 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C12-C16 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C16-C35 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| C5-C35 | | 2500 | 79 | 81 | 2 | 20 | 60-140 | 2500 | 72 | 65 | 10 | 20 | 60-140 | | |

## Batch No: E4801

Test: **Percent Moisture**

TestCode: % Moisture

Associated Samples
140809, 140810, 140811

| Compound | Blank | LCS Spike | LCS %Rec | LCSD %Rec | RPD % | --QC Limits-- RPD | LCS | MS Spike | MS %Rec | MSD %Rec | RPD % | --QC Limits-- RPD | MS | Dup RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Parent Sample Number* | | | | | | | | | | | | | | *140397* | |
| % Moisture | | | | | | | | | | | | | | 0 | |

* indicates value is outside control limits for %Recovery or greater than acceptance criteria for RPD

**Footnotes**

U — *Compound was analyzed for but not detected.*

3/27

@ 8:22 pm

FORM VIII
ANALYTICAL SEQUENCE

Lab Name:___ SunLabs Contract:_ N62470-08-D-1001

Lab Code:_____ Case No.:___ JM26 Mod. Ref. No.:_____ SDG No.:_____

Instrument ID.:_ GC-E Calibration Date:_ 12/12/11

GC Column:__ ZB-XLB-HT ID:____0.25_____ (mm) Length:____30_____ (m)

The Analytical Sequence of blanks, samples, standards,MS/MSDs, and LCSs is given below:

| Sample No. | Lab ID | Date Analyzed | Time Analyzed |
|---|---|---|---|
| Pentane Blk | | 03/30/12 | 8:33 |
| RT Marker | | 03/30/12 | 8:53 |
| CCV | | 03/30/12 | 9:13 |
| 140809 AL | | 03/30/12 | 9:33 |
| 140809 AR | | 03/30/12 | 9:53 |
| CCV | | 03/30/12 | 12:52 |
| | | | |
| | | | |
| | | | |

FORM VIII
ANALYTICAL SEQUENCE

Lab Name:___ SunLabs Contract:_ N62470-08-D-1001

Lab Code:_____ Case No.:___ JM26 Mod. Ref. No.:_____ SDG No.:_____

Instrument ID.:_ GC-E Calibration Date:_ 12/12/11

GC Column:__ ZB-XLB-HT ID:____0.25_____ (mm) Length:____30_____ (m)

The Analytical Sequence of blanks, samples, standards,MS/MSDs, and LCSs is given below:

| Sample No. | Lab ID | Date Analyzed | Time Analyzed |
|---|---|---|---|
| Pentane Blk | | 04/02/12 | 20:00 |
| RT Marker | | 04/02/12 | 20:20 |
| ccv | | 04/02/12 | 20:40 |
| 140810 AL | | 04/02/12 | 21:00 |
| 140810 AR | | 04/02/12 | 21:21 |
| 140811 AL | | 04/02/12 | 21:41 |
| 140811 AR | | 04/02/12 | 22:01 |
| ccv | | 04/03/12 | 0:21 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

FORM VII
CONTINUING CALIBRATION DATA

Lab Name:___ SunLabs Contract:_ N62470-08-D-1001

Lab Code:_____ Case No.:___ JM26 Mod. Ref. No.:_____ SDG No.:_____

Instrument ID.:_ GC-E Calibration Date:_ 12/12/11

Calibration Time:_ 1431

GC Column:__ ZB-XLB-HT ID:___0.25_____ (mm) Length:__30_____ (m)

Lab File ID:_____

| | | Concentration | % Rec. | Date | Time |
|---|---|---|---|---|---|
| Compound | | | | | |
| TPHCWG | | 2000 | 98 | 03/27/12 | 20:02 |
| TPHCWG | | 2000 | 92 | 03/27/12 | 23:41 |
| TPHCWG | | 2000 | 90 | 03/28/12 | 3:20 |
| TPHCWG | | 2000 | 114 | 03/30/12 | 9:13 |
| TPHCWG | | 2000 | 105 | 03/30/12 | 12:52 |
| TPHCWG | | 2000 | 114 | 04/02/12 | 20:40 |
| TPHCWG | | 2000 | 91 | 04/03/12 | 0:21 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |

±25% limit

FORM III
LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name:__ SunLabs Contract:_ N62470-08-D-1001

Lab Code:_____ Case No.:_JM26_____ Mod. Ref. No.:_____ SDG No.:_____

LCS- Sample No.:_____ Level: (Trace or Low)_____

| Compound | Spike Added (ug/kg) | Sample Concentration (ug/kg) | LCS Concentration (ug/kg) | LCS %REC # | | QC Limits Rec. |
|---|---|---|---|---|---|---|
| C5-C35 | 2500 | < | 1975 | 79 | | 60-140 |
| | | | | | | |

| Compound | Spike Added (ug/kg) | LCSD Concentration (ug/kg) | LCSD %REC # | %RPD # | | QC Limits RPD | REC. |
|---|---|---|---|---|---|---|---|
| C5-C35 | 2500 | 2025 | 81 | 2 | | 0-20 | 60-140 |
| | | | | | | | |
| | | | | | | | |

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD:__0___out of__1__ outside limits

Spike recovery:__0__out of__2__outside limits

Comments:_____

_____

FORM III
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:__ SunLabs Contract:_ N62470-08-D-1001

Lab Code:_____ Case No.:_JM26_____ Mod. Ref. No.:_____ SDG No.:_____

Matrix Spike- Sample Nc 140702 Level: (Trace or Low)_____

| | Spike | Sample | MS | MS %REC # | | QC |
|---|---|---|---|---|---|---|
| Compound | Added | Concentration | Concentration | | | Limits |
| | (ug/kg) | (ug/kg) | (ug/kg) | | | Rec. |
| C5-C35 | 2500 | 813 | 2628 | 72 | | 60-140 |
| | | | | | | |

| | | | | | | QC Limits | |
|---|---|---|---|---|---|---|---|
| | Spike | MSD | MSD %REC # | %RPD # | | RPD | REC. |
| Compound | Added | Concentration | | | | | |
| | (ug/kg) | (ug/kg) | | | | | |
| C5-C35 | 2500 | 2450 | 65 | 10 | | 0-20 | 60-140 |
| | | | | | | | |
| | | | | | | | |

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD:__0___out of__1__ outside limits

Spike recovery:__0__out of__2__outside limits

Comments:_____

_____

# SunLabs, Inc
## Extraction Log
## TPHCWG

Extraction Methods

TPHCWG / Other _____

Date Extract: 3/27/12 Analytes: TPHCWG

Time Extract: 14:39 Matrix: soil

Prepared by: TF Batch #: E 4732

Balance ID: B6 Reviewed by:

| Sample # or ID | Initial Wt. (g) | Final Volume (mL) | Comments |
|---|---|---|---|
| MB | | 10.0ml | |
| LCS | | ↓ | |
| LCSD | | ↓ | |
| MS 702 | 10.0g | ↓ | |
| MSD 702 | ↓ | ↓ | |
| TF ~~LOD~~ | | | |
| 140702 | 10.0g | 10.0ml | |
| 703 | ↓ | ↓ | |
| 704 | ↓ | ↓ | |
| 710 | ↓ | ↓ | |
| 714 | ↓ | ↓ | |
| 717 | ↓ | ↓ | |
| 719 | ↓ | ↓ | |
| 728 | ↓ | ↓ | |
| 809 | | | 3/28/12, 13:00 |
| 810 | | | ↓ Extract/HOLD |
| 811 | | | ↓ Extract/Hold |
| | | | |
| | | | |
| | | | |
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| | | | |
| | | | |
| | | | |

| Use | Chemical | Manufacturer | Solution/Lot # |
|---|---|---|---|
| Extraction | Pentane | EMD | 51123 |
| Drying | $Na_2SO_4$ | UCT | 213010-BI |
| | | | |
| | | | |
| | | | |

| Solution | Solution # | Amt. Added |
|---|---|---|
| MS Solution | 43-11-10 | 500 µl |
| LCS Solution | ↓ | ↓ |
| TF ~~LOD Solution~~ | | |
| | | |
| | | |

Comments:

April 4, 2012

Larry Smith
TetraTech
1558 Village Square Blvd.
Ste 2
Tallahassee, FL 32309

Re: SunLabs Project Number: **120328.06**
Client Project Description: **Saufley Field**

Dear Mr. Smith:

Enclosed is the report of laboratory analysis for the following samples:

| Sample Number | Sample Description | Date Collected | | Date Received |
|---|---|---|---|---|
| 140809 | 05-SO-132-0-2 | 03/27/12 | 10:45 | 03/28/12 |
| 140810 | 05-SO-132-2-4 | 03/27/12 | 10:50 | 03/28/12 |
| 140811 | 05-SO-132-4-6 | 03/27/12 | 10:55 | 03/28/12 |

**Narrative:**

Unless otherwise noted below or in the report and where applicable:
- Samples were received at the proper temperature and analyzed as received.
- Sample condition upon receipt is recorded on the chain-of-custody attached to this report.
- Results for all solid matrices are reported on a dry weight basis.
- Appropriate calibration and QC criteria were satisfactorily met.
- All applicable holding times for analytes have been met.
- Copies of the chains-of-custody, if received, are attached to this report.

If you have any questions or comments concerning this report, please do not hesitate to contact us.

Sincerely,

Michael W. Palmer
Vice President, Laboratory Operations

Enclosures

**Unless Otherwise Noted and Where Applicable:**

The results herein relate only to the items tested or to the samples as received by the laboratory • This report shall not be reproduced except in full, without the written approval of SunLabs • All samples will be disposed of within 60 days of the date of receipt of the samples • All results meet the requirements of the NELAC standards • Uncertainty values are available upon request

# Report of Laboratory Analysis

| SunLabs Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description: Saufley Field |

April 4, 2012

SunLabs Sample Number 140809
Sample Designation 05-SO-132-0-2

Matrix Soil
Date Collected 03/27/12 10:45
Date Received 03/28/12 10:10

| Parameters | Method | Units | Results | | Dil Factor | MDL | PQL | CAS Number | Date/Time Analyzed | Date/Time Prep |
|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Moisture** | | | | | | | | | | |
| % Moisture | 160.3M | % | 12 | | | | 0.11 | | 04/02/12 06:37 | |
| **Total Petroleum Hydrocarbon Criteria Working Group** | | | | | | | | | | |
| Date Extracted | TPHCWG | | 03/28/12 | | | | | | | 03/28/12 13:00 |
| >C5-C7 Aromatic Hydrocarbons | TPHCWG | mg/kg | 34 | I | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C7-C8 Aromatic Hydrocarbons | TPHCWG | mg/kg | 31 | U | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C8-C10 Aromatic Hydrocarbons | TPHCWG | mg/kg | 45 | I | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C10-C12 Aromatic Hydrocarbons | TPHCWG | mg/kg | 140 | | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C12-C16 Aromatic Hydrocarbons | TPHCWG | mg/kg | 280 | | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C16-C21 Aromatic Hydrocarbons | TPHCWG | mg/kg | 140 | | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C21-C35 Aromatic Hydrocarbons | TPHCWG | mg/kg | 31 | U | 1 | 31 | 120 | | 03/30/12 09:53 | 03/28/12 13:00 |
| >C5-C6 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 39 | U | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C6-C8 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 400 | | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C8-C10 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 490 | | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C10-C12 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 270 | | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C12-C16 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 450 | | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |
| >C16-C35 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 160 | | 1 | 39 | 150 | | 03/30/12 09:33 | 03/28/12 13:00 |

# Report of Laboratory Analysis

| SunLabs Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description: Saufley Field |

April 4, 2012

SunLabs Sample Number 140810
Sample Designation 05-SO-132-2-4

Matrix Soil
Date Collected 03/27/12 10:50
Date Received 03/28/12 10:10

| Parameters | Method | Units | Results | | Dil Factor | MDL | PQL | CAS Number | Date/Time Analyzed | Date/Time Prep |
|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Moisture** | | | | | | | | | | |
| % Moisture | 160.3M | % | 13 | | | | 0.11 | | 04/02/12 06:37 | |
| **Total Petroleum Hydrocarbon Criteria Working Group** | | | | | | | | | | |
| Date Extracted | TPHCWG | | 03/28/12 | | | | | | | 03/28/12 13:00 |
| >C5-C7 Aromatic Hydrocarbons | TPHCWG | mg/kg | 74 | I | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C7-C8 Aromatic Hydrocarbons | TPHCWG | mg/kg | 180 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C8-C10 Aromatic Hydrocarbons | TPHCWG | mg/kg | 120 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C10-C12 Aromatic Hydrocarbons | TPHCWG | mg/kg | 180 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C12-C16 Aromatic Hydrocarbons | TPHCWG | mg/kg | 410 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C16-C21 Aromatic Hydrocarbons | TPHCWG | mg/kg | 290 | | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C21-C35 Aromatic Hydrocarbons | TPHCWG | mg/kg | 31 | U | 1 | 31 | 120 | | 04/02/12 21:21 | 03/28/12 13:00 |
| >C5-C6 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 39 | U | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C6-C8 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 1800 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C8-C10 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 790 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C10-C12 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 290 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C12-C16 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 840 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |
| >C16-C35 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 1800 | | 1 | 39 | 160 | | 04/02/12 21:00 | 03/28/12 13:00 |

# Report of Laboratory Analysis

| SunLabs Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description: Saufley Field |

April 4, 2012

SunLabs Sample Number 140811
Sample Designation 05-SO-132-4-6

Matrix Soil
Date Collected 03/27/12 10:55
Date Received 03/28/12 10:10

| Parameters | Method | Units | Results | | Dil Factor | MDL | PQL | CAS Number | Date/Time Analyzed | Date/Time Prep |
|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Moisture** | | | | | | | | | | |
| % Moisture | 160.3M | % | 7 | | | | 0.11 | | 04/02/12 06:37 | |
| **Total Petroleum Hydrocarbon Criteria Working Group** | | | | | | | | | | |
| Date Extracted | TPHCWG | | 03/28/12 | | | | | | | 03/28/12 13:00 |
| >C5-C7 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 | U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C7-C8 Aromatic Hydrocarbons | TPHCWG | mg/kg | 48 | I | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C8-C10 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 | U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C10-C12 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 | U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C12-C16 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 | U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C16-C21 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 | U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C21-C35 Aromatic Hydrocarbons | TPHCWG | mg/kg | 29 | U | 1 | 29 | 120 | | 04/02/12 22:01 | 03/28/12 13:00 |
| >C5-C6 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 | U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C6-C8 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 | U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C8-C10 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 | U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C10-C12 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 | U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C12-C16 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 | U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |
| >C16-C35 Aliphatic Hydrocarbons | TPHCWG | mg/kg | 37 | U | 1 | 37 | 150 | | 04/02/12 21:41 | 03/28/12 13:00 |

# Report of Laboratory Analysis

| SunLabs Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description |
| | Saufley Field |

April 4, 2012

## Footnotes

| | |
|---|---|
| ** | Not NELAC certified for this analyte |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| J | The reported value failed to meet the established quality control criteria for either precision or accuracy(see cover letter for explanation) |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| MB | Method Blank |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| NA | Sample not analyzed at client's request. |
| p | SunLabs is not currently NELAC certified for this analyte. |
| Q | Sample held beyond the accepted holding time. |
| RPD | Relative Percent Difference |
| U | Compound was analyzed for but not detected. |
| V | Indicates that the analyte was detected in both the sample and the associated method blank. |
| Z | Too many colonies were present (TNTC); the numeric value represents the filtration volume. |

# Quality Control Data

| Project Number | TetraTech |
|---|---|
| 120328.06 | Project Description: Saufley Field |

April 4, 2012

## Batch No: E4732

Test: Total Petroleum Hydrocarbon Criteria Working Group

TestCode: TPHworking group-s

Associated Samples: 140809, 140810, 140811

| Compound | Blank | LCS Spike | LCS %Rec | LCSD %Rec | RPD % | ---QC Limits--- RPD | LCS | MS Spike | MS %Rec | MSD %Rec | RPD % | ---QC Limits--- RPD | MS | Dup RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Parent Sample Number* | | | | | | | | | *140702* | *140702* | | | | | |
| Date Extracted | 03/27/12 | | | | | | | | | | | | | | |
| >C5-C7 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C7-C8 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C8-C10 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C10-C12 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C12-C16 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C16-C21 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C21-C35 Aromatic Hydrocarbons | 27 U mg/kg | | | | | | | | | | | | | | |
| >C5-C6 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C6-C8 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C8-C10 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C10-C12 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C12-C16 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| >C16-C35 Aliphatic Hydrocarbons | 34 U mg/kg | | | | | | | | | | | | | | |
| C5-C35 | | 2500 | 79 | 81 | 2 | 20 | 60-140 | 2500 | 72 | 65 | 10 | 20 | 60-140 | | |

## Batch No: E4801

Test: Percent Moisture

TestCode: % Moisture

Associated Samples: 140809, 140810, 140811

| Compound | Blank | LCS Spike | LCS %Rec | LCSD %Rec | RPD % | ---QC Limits--- RPD | LCS | MS Spike | MS %Rec | MSD %Rec | RPD % | ---QC Limits--- RPD | MS | Dup RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Parent Sample Number* | | | | | | | | | | | | | | *140397* | |
| % Moisture | | | | | | | | | | | | | | 0 | |

* indicates value is outside control limits for %Recovery or greater than acceptance criteria for RPD

*Footnotes*

*U* *Compound was analyzed for but not detected.*

# SunLabs, Inc. Chain of Custody

32913

Client Name: Tetra Tech
Contact: Larry Smith
Address: 1558 Village Square Blvd Ste 2, Tallahassee, FL 32309
Phone / Fax: 850-559-2459
E-Mail: Larry.Smith@tetratech.com

SunLabs Project # 120328.06

Project Name: Sawyer Field
Project #: JM 26 112G0274
PO #:
Alt Bill To:

| Bottle Type | G | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Preservative | I | | | | | | | | | |
| Matrix | SO | | | | | | | | | |
| Analysis / Method Requested | TRPH Speciation | TPHWG | | | | | | | | |

| SunLabs Sample # | Sample Description | Sampled Date | Sampled Time | # of Bottles | TRPH Speciation | TPHWG |
|---|---|---|---|---|---|---|
| 140809 | 05-SO-132-0-2 | 27 Mar | 1045 | 1 | 1 | 1 |
| 810 | 05-SO-132-2-4* | | 1050 | 1 | 1 | |
| 811 | 05-SO-132-4-6* | | 1055 | 1 | 1 | |
| | ~~FDS-[illegible]~~ WS 27/Mar/12 | | | | | |

Due Date Requested*:

☐ FDEP PreApproval site
☐ ADaPT EDD (PGM:_____)
Facility/Site ID:

Remarks / Comments:
*hold for TRPH Speciation Analysis

Length of Record Retention if other than 5 years:*

Sampler Signature / Date: [signature]

Printed Name / Affiliation: Larry Smith / Tetra Tech

SUNLABS, INC. RESERVES THE RIGHT TO BILL FOR DISPOSAL OF UNUSED/ UNRETURNED SAMPLES AND TO RETURN UNUSED SAMPLES.

| Relinquished By: | Relinquished To: | Date: | Time: |
|---|---|---|---|
| CHUBER | UPS | 3/20/12 CH | 1700 |
| [signature] | FedEx | 27/3/12 | 1600 |
| FedEx | CHUBER | 3/28/12 | 1010 |
| | | | |

*Bottle Type Codes:*
GV = Glass Vial; GVS = Low Level Volatile Kit
GA = Glass Amber; T = Tedlar Bag
P = Plastic; O = Other (Specify)
S = Soil Jar

*Preservative Codes:*
H = Hydrochloric Acid + Ice; S = Sulfuric Acid + Ice
I = Ice only; VS = MeOH, OFW, + Ice
N = Nitric Acid + Ice; T = Sodium thiosulfate + ice
B = Sodium bisulfite + Ice; O = Other (Specify)

*Matrix Codes:*
SO = Soil; SOL = Solid
A = Air; SW = Surface Water
DW = Drinking Water; WS = Waste; WW = Waste Water
GW = Ground Water; W = Water (Blanks)
SE = Sediment; O = Other (Specify:_____)

**Internal Use Only**
Temp upon receipt: 3.5 °C
Received on Ice? Y / N / NA

**Internal Use Only**
*Sample Condition Upon Receipt:*
Custody Seals present? Y / N / NA
Custody Seals intact? Y / N / NA
Shipping Bills attached? Y / N / NA
Sample containers intact? Y / N / NA
Samples within holding times? Y / N / NA
Sufficient volume for all analyses? Y / N / NA
Are vials head-space free? Y / N / NA
Proper containers and preservatives? Y / N / NA

**SunLabs, Inc.**
5460 Beaumont Center Blvd., Suite 520, Tampa, Florida 33634
Phone: 813-881-9401 / Fax: 813-354-4661
e-mail: info@SunLabsInc.com www.SunLabsInc.com



* See General Terms and Conditions on Reverse

# APPENDIX E

# 95 % UCL CALCULATIONS

**FDEP UCL Calculator Version 1.1**

Goodness-of-fit test results

**Shapiro-Francia Results (Adjust for Censoring)**

| | |
|---|---|
| SF for Normal Distribution | 0.9543 |
| SF for LogNormal Distribution | 0.9805 |
| Shapiro-Francia critical value for p<0.05 | 0.93956 |

Test stat > critical value indicates a reasonable fit

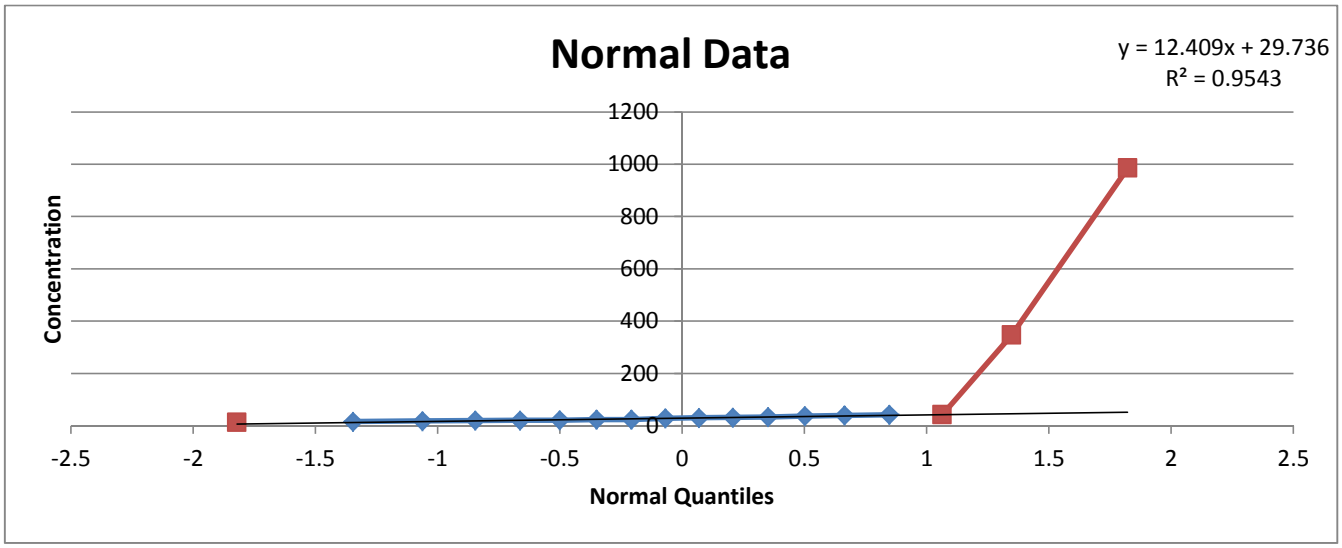
**Shapiro-Wilk's Test Results for All Data (BDL replaced with 1/2 DL)**

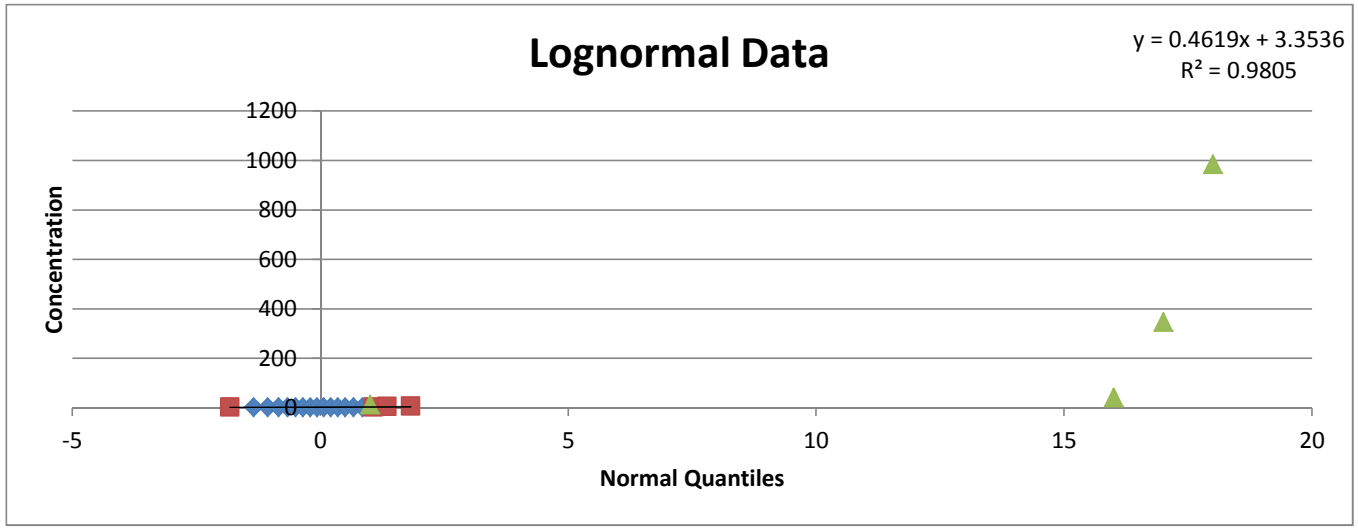
| | |
|---|---|
| SW test statistic for Normal Distribution | 0.387 |
| SW test statistic for LogNormal Distribution | 0.697 |
| Shapiro-Wilk's critical value for p<0.05 | 0.897 |

Test stat > critical value indicates a reasonable fit

**Based on the results of the Shapiro-Francia test**
**Distribution is best described as: Lognormal**

Lognormal


Normal Data
y = 12.409x + 29.736
R² = 0.9543
Concentration
1200
1000
800
600
400
200
0
-2.5
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2
2.5
Normal Quantiles


Lognormal Data
y = 0.4619x + 3.3536
R² = 0.9805
Concentration
1200
1000
800
600
400
200
0
-5
0
5
10
15
20
Normal Quantiles

## FDEP UCL Calculator Version 1.1 8/30/12

*Note: Results reflect censored parameter estimations based on distributional assumptions.*

| Censor Estimated Statistics for | |
|---|---|
| Number of Samples | 18 |
| Number of Censored Data | 4 |
| Minimum Non-censored | 20.6 |
| Maximum | 985 |
| Mean | NA |
| Median | NA |
| Standard Deviation | NA |
| Variance | NA |
| Coefficient of Variation | NA |
| Skewness | NA |

| 95% UCL (Assuming Normal Data) | |
|---|---|
| Student's-t | NA |

| 95% UCL (Adjusted for Skewness) | |
|---|---|
| Adjusted-CLT | NA |
| Modified-t | NA |

| 95% Non-parametric UCL | |
|---|---|
| CLT | NA |
| Jackknife | NA |
| Standard Bootstrap | NA |
| Bootstrap-t | NA |
| Chebyshev (Mean, Std) | 338.7689 |

| Censor Estimated Statistics for ln() | |
|---|---|
| Minimum | 2.561096 |
| Maximum | 6.892642 |
| Mean | 3.371818 |
| Standard Deviation | 0.521007 |
| Variance | 0.271448 |
| Fit | 0.987081 |

| Goodness-of-Fit Results | |
|---|---|
| Distribution Recommended | Lognormal |
| Distribution Used | Lognormal |

| Estimates Assuming Lognormal Distribution | |
|---|---|
| MLE Mean | 33.36617 |
| MLE Standard Deviation | 18.63324 |
| MLE Median | 29.13145 |
| MLE Coefficient of Variation | 0.558447 |
| | |
| MVUE Estimate of Mean | 33.00997 |
| MVUE Estimate of Std. Dev. | 17.77062 |
| MVUE Estimate of SE | 4.735618 |
| MVUE Coefficient of Variation | 0.538341 |

| UCL Assuming Lognormal Distribution | |
|---|---|
| 95% H-UCL | 43.53394 |
| 95% Chebyshev (MVUE) UCL | 53.65205 |
| 99% Chebyshev (MVUE) UCL | 80.12889 |

| FDEP Recommended UCL to Use: |
|---|
| 43.53394 |

**FDEP UCL Calculator Version 1.1**

Goodness-of-fit test results

**Shapiro-Francia Results (Adjust for Censoring)**

| | |
|---|---|
| SF for Normal Distribution | 0.9355 |
| SF for LogNormal Distribution | 0.8795 |
| Shapiro-Francia critical value for p<0.05 | 0.92465 |

Test stat > critical value indicates a reasonable fit

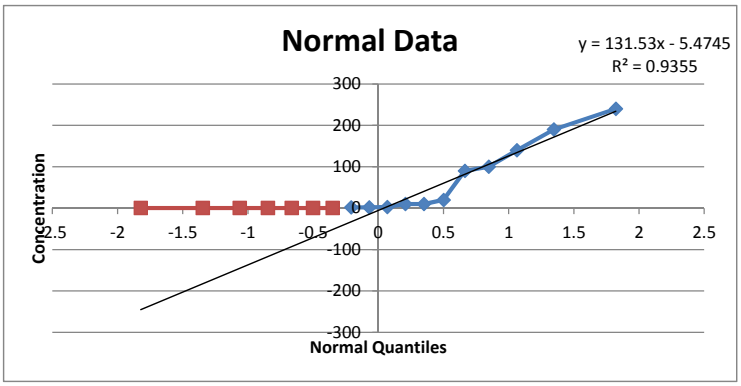
**Shapiro-Wilk's Test Results for All Data (BDL replaced with 1/2 DL)**

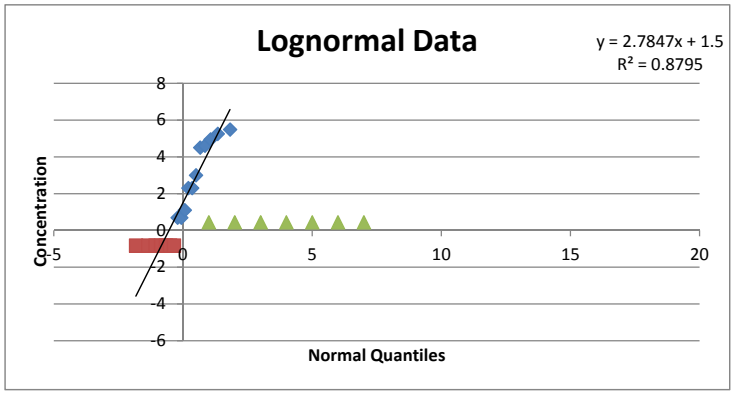
| | |
|---|---|
| SW test statistic for Normal Distribution | 0.669 |
| SW test statistic for LogNormal Distribution | 0.841 |
| Shapiro-Wilk's critical value for p<0.05 | 0.897 |

Test stat > critical value indicates a reasonable fit

**Based on the results of the Shapiro-Francia test**
**Distribution is best described as: Normal**

Normal



## FDEP UCL Calculator Version 1.1 8/30/12

*Note: Results reflect censored parameter estimations based on distributional assumptions.*

| Censor Estimated Statistics for | |
|---|---|
| Number of Samples | 18 |
| Number of Censored Data | 7 |
| Minimum Non-censored | 2 |
| Maximum | 240 |
| Mean | 15.80565 |
| Median | 2.5 |
| Standard Deviation | 105.3788 |
| Variance | 11104.68 |
| Coefficient of Variation | 6.667158 |
| Skewness | 1.66804 |
| Fit | 0.954421 |

| 95% UCL (Assuming Normal Data) | |
|---|---|
| Student's-t | 59.01402 |

| 95% UCL (Adjusted for Skewness) | |
|---|---|
| Adjusted-CLT | 63.54301 |
| Modified-t | 60.08681 |

| 95% Non-parametric UCL | |
|---|---|
| CLT | 56.66417 |
| Jackknife | NA |
| Standard Bootstrap | NA |
| Bootstrap-t | NA |
| Chebyshev (Mean, Std) | 122.035 |

| Censor Estimated Statistics for ln() | |
|---|---|
| Minimum | -0.83241 |
| Maximum | 5.480639 |
| Mean | 15.80565 |
| Standard Deviation | 105.3788 |
| Variance | 11104.68 |

| Goodness-of-Fit Results | |
|---|---|
| Distribution Recommended | Normal |
| Distribution Used | Normal |

| Estimates Assuming Lognormal Distribution | |
|---|---|
| MLE Mean | NA |
| MLE Standard Deviation | NA |
| MLE Median | NA |
| MLE Coefficient of Variation | NA |
| | |
| MVUE Estimate of Mean | NA |
| MVUE Estimate of Std. Dev. | NA |
| MVUE Estimate of SE | NA |
| MVUE Coefficient of Variation | NA |

| UCL Assuming Lognormal Distribution | |
|---|---|
| 95% H-UCL | NA |
| 95% Chebyshev (MVUE) UCL | NA |
| 99% Chebyshev (MVUE) UCL | NA |

| FDEP Recommended UCL to Use: |
|---|
| 59.01402 |

**FDEP UCL Calculator Version 1.1**

Goodness-of-fit test results

**Shapiro-Francia Results (Adjust for Censoring)**

| | |
|---|---|
| SF for Normal Distribution | 0.5524 |
| SF for LogNormal Distribution | 0.8308 |
| Shapiro-Francia critical value for p<0.05 | NA |

Test stat > critical value indicates a reasonable fit

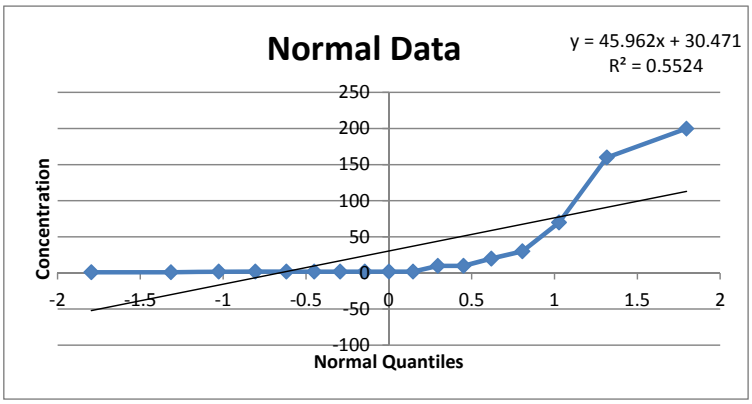
**Shapiro-Wilk's Test Results for All Data (BDL replaced with 1/2 DL)**

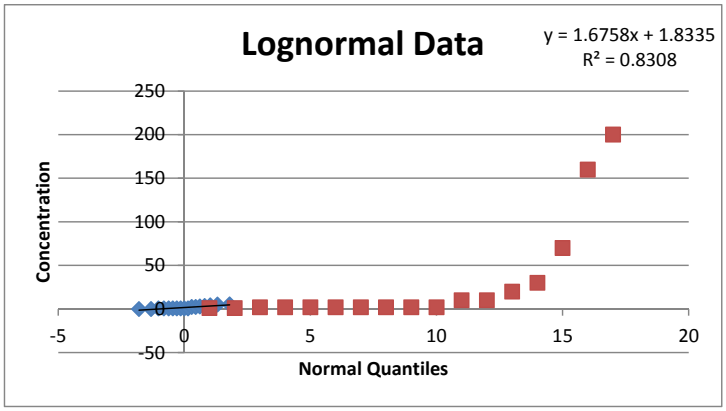
| | |
|---|---|
| SW test statistic for Normal Distribution | 0.563 |
| SW test statistic for LogNormal Distribution | 0.819 |
| Shapiro-Wilk's critical value for p<0.05 | 0.892 |

Test stat > critical value indicates a reasonable fit

**Based on the results of the Shapiro-Wilk's test**
**Distribution is best described as: Neither**

Neither



**FDEP UCL Calculator Version 1.1** **8/30/12**

| Summary Statistics for | |
|---|---|
| Number of Samples | 17 |
| Number of Censored Data | 0 |
| Minimum | 1 |
| Maximum | 200 |
| Mean | 30.47059 |
| Median | 2 |
| Standard Deviation | 59.29283 |
| Variance | 3515.64 |
| Coefficient of Variation | 1.945904 |
| Skewness | 2.328756 |

| 95% UCL (Assuming Normal Data) | |
|---|---|
| Student's-t | 55.57748 |

| 95% UCL (Adjusted for Skewness) | |
|---|---|
| Adjusted-CLT | 62.80678 |
| Modified-t | 56.93119 |

| 95% Non-parametric UCL | |
|---|---|
| CLT | 54.12671 |
| Jackknife | NA |
| Standard Bootstrap | 50.9314 |
| Bootstrap-t | 184.583 |
| Chebyshev (Mean, Std) | 93.15572 |

| Summary Statistics for ln() | |
|---|---|
| Minimum | 0 |
| Maximum | 5.298317 |
| Mean | 1.833486 |
| Standard Deviation | 1.762825 |
| Variance | 3.107552 |

| Goodness-of-Fit Results | |
|---|---|
| Distribution Recommended | Neither |
| Distribution Used | Neither |

| Estimates Assuming Lognormal Distribution | |
|---|---|
| MLE Mean | 29.58484 |
| MLE Standard Deviation | 136.7518 |
| MLE Median | 6.255657 |
| MLE Coefficient of Variation | 4.622361 |
| | |
| MVUE Estimate of Mean | 24.42536 |
| MVUE Estimate of Std. Dev. | 62.53939 |
| MVUE Estimate of SE | 12.34753 |
| MVUE Coefficient of Variation | 2.560429 |

| UCL Assuming Lognormal Distribution | |
|---|---|
| 95% H-UCL | 178.7899 |
| 95% Chebyshev (MVUE) UCL | 78.24701 |
| 99% Chebyshev (MVUE) UCL | 147.2821 |

| FDEP Recommended UCL to Use: |
|---|
| 93.15572 |