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SITE ASSESSMENT REPORT ADDENDUM 2 FOR DAY TANK 1 WITH NO FURTHER ACTION PROPOSAL FOR SOILS NAS CECIL FIELD FL
1/1/2006
TETRA TECH NUS INC

Comprehensive **L**ong-term **E**nvironmental **A**ction **N**avy

CONTRACT NUMBER N62467-94-D-0888

Site Assessment Report Addendum No. 2
for
Day Tank 1
with No Further Action Proposal for Soils

Naval Air Station Cecil Field
Jacksonville, Florida

Contract Task Order 0078

January 2006

Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

TETRA TECH NUS, Inc.

110508/P

SITE ASSESSMENT REPORT ADDENDUM NO. 2
FOR
DAY TANK 1 WITH NO FURTHER ACTION PROPOSAL FOR SOILS

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
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Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

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CONTRACT TASK ORDER 0078

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The professional opinions rendered in this document identified as Site Assessment Report Addendum No. 2 for Day Tank 1 with No Further Action Proposal for Soils, Naval Air Station Cecil Field, Jacksonville, Florida were developed in accordance with commonly accepted procedures consistent with applicable standards of practice. This document is based on information obtained from others and under the supervision of the signing engineer. If conditions are determined to exist differently than those described in this document, then the undersigned professional engineer should be notified to evaluate the effects of any additional information on the project described in this report.

Mark Speranza

Mark Speranza, P.E.
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Date: 1/27/06

Mark P. Speranza

CERTIFICATION OF TECHNICAL
DATA CONFORMITY

The Contractor, Tetra Tech NUS, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-94-D-0888 are complete and accurate and comply with all requirements of this contract.

DATE: January 10, 2006

COMPANY CERTIFICATION AUTHORIZATION NUMBER: 7988
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ACRONYMS

ABB-ES	ABB Environmental Services
APR	Alternate Procedures Request
BCT	BRAC Cleanup Team
bgs	Below ground surface
BRAC	Base Realignment and Closure
BS	Biosparging
CA	Contamination Assessment
CAR	Contamination Assessment Report
CARA	Contamination Assessment Report Addendum
CLEAN	Comprehensive Long-Term Environmental Action Navy
CTO	Contract Task Order
DPT	Direct push technology
EISOPQAM	Environmental Investigations Standard Operating Procedures and Quality Assurance Manual
EMAC	Environmental Multiple Award Contract
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FID	Flame ionization detector
FL-PRO	Florida Petroleum Residual Organics
GCTL	Groundwater Cleanup Target Level
LUC	Land use control
mg/kg	Milligram per kilogram
µg/kg	Microgram per kilogram
NAS	Naval Air Station
O&M	Operation and maintenance
PAH	Polynuclear aromatic hydrocarbon
ppm	Parts per million
PVC	Polyvinyl chloride
QA/QC	Quality assurance/quality control
RAC	Remedial Action Contractor
RAP	Remedial Action Plan
RI	Remedial Investigation
SARA	Site Assessment Report Addendum
SCTL	Soil Cleanup Target Level
SOP	Standard Operating Procedure

SOUTHNAVFACENGCOM	Southern Division, Naval Facilities Engineering Command
SRR	Source Removal Report
TN	TN and Associates, Inc.
TRPH	Total recoverable petroleum hydrocarbons
TtNUS	Tetra Tech NUS, Inc.
U.S. EPA	United States Environmental Protection Agency
VE	Vapor extraction
VOC	Volatile organic compound

EXECUTIVE SUMMARY

This Site Assessment Report Addendum (SARA) No. 2 summarizes the related operations, results, conclusions, and recommendations of a supplemental field investigation and removal actions performed in 2003 and 2004 to remediate soil contamination in the Day Tank 1 area. This document addresses the disposition of soils at the site. A groundwater monitoring program is ongoing.

Day Tank 1 (also known as Facility 293) was located east of Jet Road, north of Buildings 824 and 824A, and west of Building 846. A lined, spill containment basin was located to the north of the tank. Day Tank 1 was a 200,000-gallon earth-mounded aboveground tank that stored JP-5 jet fuel. Numerous spills have occurred at the site, most notably a release of approximately 497,000 gallons of JP-5 in 1981 (ABB-ES, 1997). In 1997, a Remedial Action Plan (RAP) was prepared that included the removal of free product and contaminated soil by excavation, groundwater treatment near the source using biosparging (BS)/vacuum extraction (VE), and long-term monitoring of the plume for natural attenuation. In 1999, approximately 24,000 tons of soil were removed and replaced with clean fill, and 2000, the BS/VE system was installed.

In 2002, it was determined that contaminated soil and free product remained at the Day Tank 1 site and that the extent of soil contamination that exceeded Soil Cleanup Target Levels (SCTLs) was uncertain. Additional assessment of the site was required to delineate the extent of contaminants in soil and to confirm the extent of free product under Building 846. In 2003, a SARA investigation was performed to further delineate contaminated soil.

The SARA No. 2 field activities at Day Tank 1 were conducted in four phases as follows:

- The first phase was the execution of the soil excavation plan provided in the November 2003 SARA. The activities included the excavation and off-site disposal of 9,280.66 tons of contaminated soil including replacement with clean fill in October and November 2003, basin draining, and a preliminary delineation of contaminated soil beneath the basin using a flame ionization detector (FID) in December 2003.

- The second phase was delineation of the contaminated soil beneath the basin using laboratory analysis. The activities included sampling and analysis of surface and subsurface soil samples in March and May 2004, delineation of contaminated soil to meet Florida Department of Environmental Protection (FDEP) residential and leachability criteria, and the preparation of a soil excavation plan in June 2004.

- The third phase was the excavation of 6,243.1 tons of contaminated soil beneath the spill containment basin and replacement with clean fill. The activities included soil excavation and off-site disposal in August and September 2004.

- The final phase was the installation and sampling of one monitoring well within the footprint of the spill containment basin excavation in February 2005. All contaminant concentrations in the groundwater sample were less than detection limits.

Groundwater is not being addressed in this SARA No. 2, but a summary of the current status is provided. The BS/VE groundwater treatment system was installed as part of the 1997 RAP and was operated from February 2000 to August 2003. Seven wells were sampled and analyzed routinely to monitor the progress of remediation and until June 2003, contaminant concentrations have been less than Groundwater Cleanup Target Levels (GCTLs) and typically less than detection limits. Since then, concentrations of benzene, xylenes, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene have been greater than GCTLs in two monitoring wells (Terraine, 2004b).

The BS/VE system ran continually except for routine downtime for maintenance and groundwater sampling. The operations are described in the quarterly and annual status reports prepared by the operation and maintenance (O&M) contractors, CH2MHill Constructors, Inc. and Terraine, Inc.

Based on recent monitoring well observations, no free product is present. However, contaminant concentrations exceed GCTLs in two wells in the vicinity of the 1999 excavation, and groundwater monitoring will continue under the current program. No groundwater contamination was detected in the vicinity of the basin excavation, so no additional groundwater monitoring in that area is required.

No Further Action is proposed for Day Tank 1 soils only. As described in this SARA No. 2, the site meets most of the conditions for No Further Action described in 62-770.680(1):

- Free product does not exist in any wells [62-770.680(1)(a)].
- No excessively contaminated soil exists per Section 376.3071(11)(b)2, Florida Statutes because laboratory analyses were used to delineate soil contamination, rendering the FID data not relevant [62-770.680(1)(b) and 62-770.200(12)].
- Contaminated soil has been removed to meet residential and leachability SCTLs [62-770.680(1)(c)].
- Surface water is not affected by groundwater [62-770.680(1)(e)].

However, concentrations of contaminants in groundwater are greater than GCTLs, so site groundwater does not meet the requirements of 62-770.680(1)(d) for No Further Action, and monitoring will continue under the existing RAP O&M program.

1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS), under contract to Naval Facilities Engineering command, Engineering Field Division South, has prepared this Site Assessment Report Addendum (SARA) No. 2 for Day Tank 1 at Naval Air Station (NAS) Cecil Field in Jacksonville, Florida. This program was conducted under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Program, Contract Number N62467-94-D-0888, Contract Task Order (CTO) 0078. This SARA No. 2 summarizes the related operations, results, conclusions, and recommendations of a supplemental field investigation and removal actions performed in 2003 and 2004 to remediate soil contamination in the Day Tank 1 area. This document addresses soil contamination and the disposition of site soils.

1.1 SITE DESCRIPTION

Day Tank 1 (also known as Facility 293) was located on the former Main Base east of Flightline (formerly Jet) Road, north of Buildings 824 and 824A, and west of Building 846 (see Figure 1-1). A lined, spill containment basin (approximately 500,000 gallon) was located north of the tank. Day Tank 1 was a 200,000-gallon earth-mounded aboveground tank that stored JP-5 jet fuel. The tank was installed in 1956 and was demolished in 1999 (ABB-ES, 1997). When the tank was demolished, contaminated soil and associated free product were also excavated and disposed off site. Approximately 24,000 tons of soil were removed and replaced with clean fill. Confirmatory samples collected after the excavation was completed had contaminant concentrations greater than Florida Department of Environmental Protect (FDEP) Soil Cleanup Target Levels (SCTLs) (CH2MHill, 2000). In 2003, a SARA was performed to further delineate contaminated soil. Figure 1-2 shows the site conditions following the 2003 SARA investigation.

1.2 SITE HISTORY

Numerous spills have occurred at the site, most notably a release of approximately 497,000 gallons of JP-5 in 1981 (ABB-ES, 1997). This release was followed by several investigations summarized as follows:

- In 1981, a preliminary Contamination Assessment (CA) was conducted. This preliminary CA concluded that the spilled fuel was limited to the unsaturated zone, had not migrated to the groundwater, and would degrade naturally.

- In 1990 through 1992, a CA was conducted that identified groundwater contamination and free product associated with the fuel spills. No impacts to surface water or sediment were identified. The results were submitted to the FDEP in a Contamination Assessment Report (CAR) in 1992.

- In 1993, additional field work was performed to address FDEP comments, and a CAR Addendum (CARA) was submitted.

- In 1994, a Remedial Action Plan (RAP) was submitted based on the CARA. Based on comments from FDEP, the Navy prepared an Alternate Procedures Request (APR) to address groundwater table depression that would be caused by a proposed free product remediation system.

- The APR for a vapor-enhanced free-product extraction system was submitted in 1995.

- In 1996, vacuum-enhanced extraction and two bioslurping field tests were performed. Based on the results of the field tests, FDEP requested that a second RAP be submitted for the site.

- In 1997, the second RAP was submitted (ABB-ES, 1997). The components of the RAP included the removal of free product and contaminated soil by excavation, groundwater treatment near the source using biosparging (BS)/vacuum extraction (VE), and long-term monitoring of the plume for natural attenuation. In support of the RAP, contaminated soil, defined by headspace flame ionization detector (FID) measurements of 50 parts per million (ppm) or greater, was delineated.

- In 1999, the Remedial Action Contractor (RAC) implemented the excavation portion of the RAP, and in 2000, installed the BS/VE system near the southwestern corner of Building 846. The limits of excavation defined in the RAP encompassed the limits of the free product that was identified in the CARA. Approximately 24,000 tons of soil was excavated to a depth of 11 feet, approximately 1 foot below the water table. The excavation included the demolition and removal of Day Tank 1. Post-excavation samples collected along the edges of the excavation were analyzed by a laboratory, and the results of these samples were evaluated according to a protocol described in the 1997 RAP. Although total recoverable petroleum hydrocarbons (TRPH), volatile organic compounds (VOCs), and polynuclear aromatic hydrocarbons (PAHs) were detected, their concentrations did not require additional action based on the RAP protocol. These results were reported in the Source Removal Report (SRR) (CH2MHill, 2000).

- In 2000, free product was identified in two of the vapor extraction wells. The free product was routinely removed from the wells but returned in one well (VEW-1) after removal. The free product

thickness observed in VEW-1 has varied from 1 to 4 feet. Less than 20 gallons of free product were removed over a period of two years.

- In 1999 to 2000, groundwater monitoring for natural attenuation indicated that the plume extended much further than identified in the RAP.

- In 2001, a Remedial Investigation (RI) was performed at Site 57, which is adjacent to the Day Tank 1 groundwater plume. The extent of free product associated with VEW-1 under Building 846 was evaluated during this RI.

- In 2002, the results of the confirmatory samples from the 1999 excavation were re-evaluated and compared to the FDEP SCTLs and this comparison showed that contaminated soil remained at the Day Tank 1 site and that the extent of soil contamination that exceeded SCTLs was uncertain. Free product continued to be observed in two monitoring wells. Additional assessment of the site was required to delineate the extent of contamination in the soil and to confirm the extent of free product under Building 846.

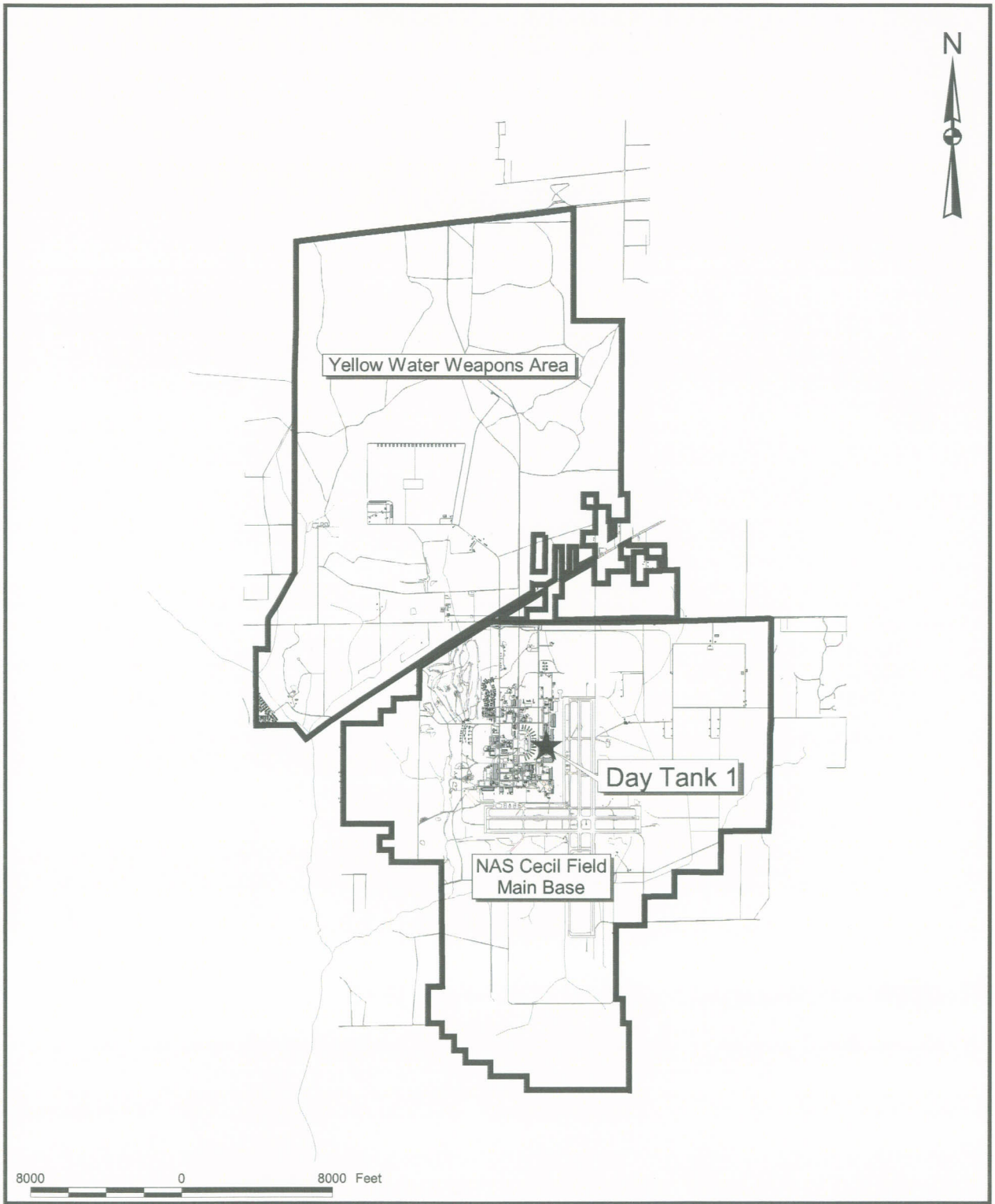
- In 2003, a SARA investigation was performed to delineate contaminated soil to meet residential and leachability criteria and to delineate the extent of free product beneath Building 846. The presence of water in the basin prevented sampling within the basin. The SARA included an excavation plan for 3,300 cubic yards of contaminated soil, including the free product (TtNUS, 2003). (In April 2005, the SCTLs in 62-777 FAC were revised. As part of this SARA No. 2, the results of the 2003 SARA were compared to the 2005 criteria, but none of the conclusions as to the disposition of each 2003 SARA sample location have changed. The area delineated in the 2003 SARA that met residential and leachability criteria did not change.)

- In August 2003, the BS/VE system was taken out of service based on the groundwater monitoring data. The groundwater monitoring program was continued.

1.3 PURPOSE OF FIELD ACTIVITIES

The activities described in this SARA No. 2 include an investigation of contaminated soil beneath the spill containment basin and two soil removal actions. The purpose of the investigation was to delineate the extent of soil contamination beneath the spill containment basin that was discovered when the basin was drained and to confirm that contaminants were not present in groundwater in the vicinity of the basin. The purpose of the removal actions was to remove contaminated soil such that No Further Action is required for soil at Day Tank 1. The first removal action was based on the November 2003 SARA; the second removal action was based on the investigation of soil beneath the spill containment basin. This

information was used to prepare a No Further Action Proposal for soil only included at the end of this SARA No. 2.



DRAWN BY MJJ	DATE 15Jan03	SITE LOCATION MAP DAY TANK 1 SARA No. 2 NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 0039
CHECKED BY	DATE		APPROVED BY / DATE 1/10/06
COST/SCHEDULE-AREA			APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1-1 / REV 0

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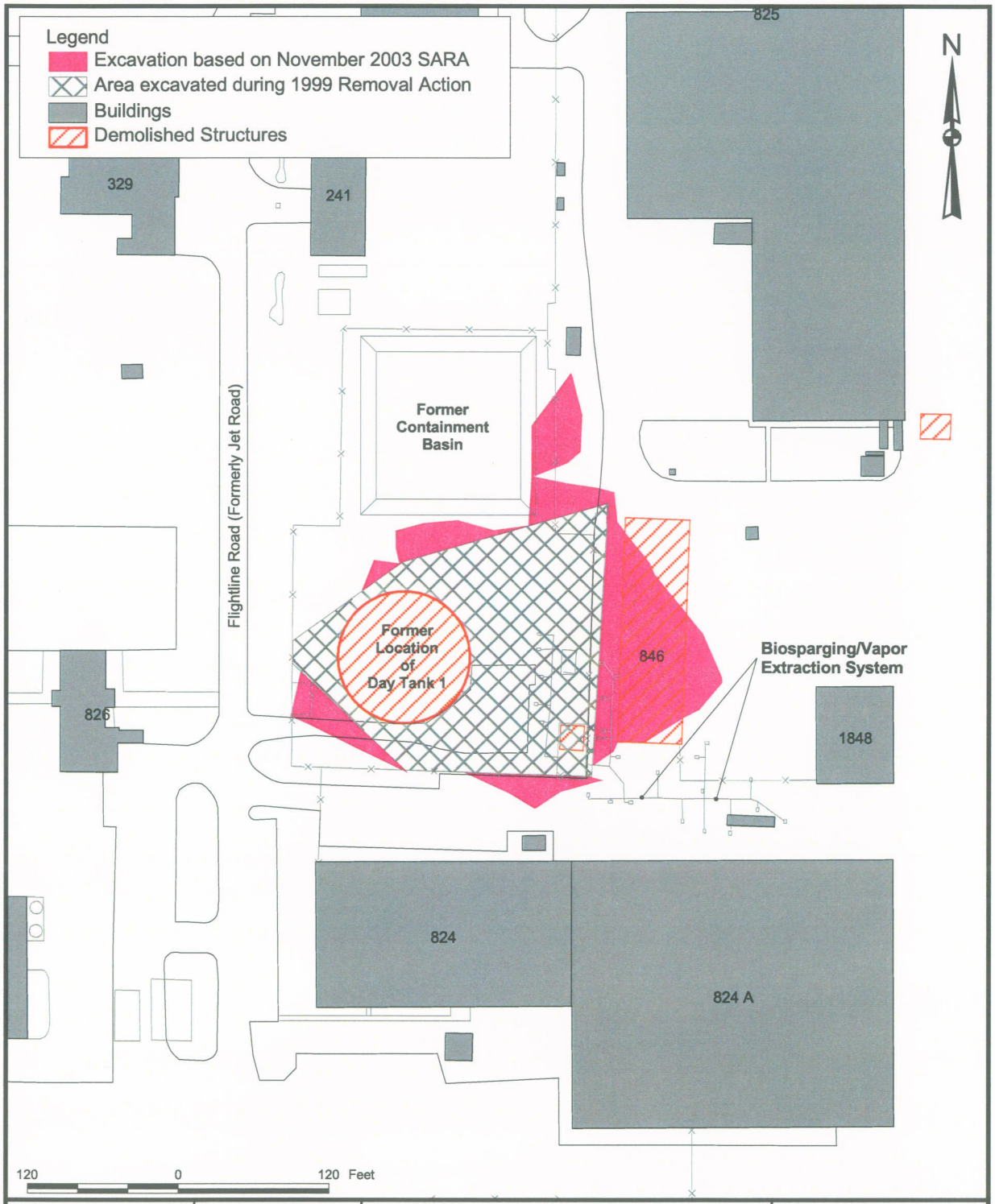

DRAWN BY MJJ	DATE 15Jan03	SITE PLAN FOLLOWING 2003 SARA DAY TANK 1 SARA No. 2 NAVAL AIR STATION CECIL FIELD JACKSONVILLE, FLORIDA	CONTRACT NUMBER 0039
CHECKED BY	DATE		APPROVED BY DATE 1/10/06
COST/SCHEDULE-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1-2 / REV 0

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2.0 FIELD ACTIVITIES

2.1 INTRODUCTION

The SARA No. 2 field activities at Day Tank 1 were conducted in four phases as follows:

- The first phase was the execution of the soil excavation plan provided in the November 2003 SARA. The activities included soil excavation and off-site disposal, basin draining, and a preliminary delineation of contaminated soil beneath the basin using an FID.

- The second phase was delineation of contaminated soil beneath the basin using laboratory analysis. The activities included sampling and analysis of surface and subsurface soil samples, delineation of contaminated soil to meet FDEP residential and leachability criteria, and the preparation of a soil excavation plan.

- The third phase was the excavation of contaminated soil beneath the spill containment basin. The activities included the soil excavation and off-site disposal.

- The final phase was the installation and sampling of one monitoring well within the footprint of the spill containment basin excavation.

These activities are described in detail below.

2.2 NOVEMBER 2003 SARA REMOVAL ACTION ACTIVITIES

2.2.1 November 2003 SARA Excavation

The Navy's RAC, CH2MHill Constructors, Inc., conducted the soil removal activities for Day Tank 1 from October 7, 2003 through November 23, 2003. The RAC excavated, transported, and disposed of 9,280.66 tons of contaminated soil and restored the site to pre-excavation conditions. Soil samples were collected and analyzed for waste characterization before excavation began. The excavated soil was either staged or directly loaded and transported off site for disposal on the same day that it was excavated.

The soil was excavated using a hydraulic track excavator and loaded into tarp-covered tandem dump trucks provided by Beaver Bulk Trucking, Whitaker Trucking, Bar-K Trucking, and Singletary Trucking for transportation and disposal. Soils were excavated to the horizontal and vertical excavation limits shown

on Figure 2-1 and as specified in the SARA (TtNUS, 2003). The excavated soil was transported to the Broadhurst Environmental, Inc Landfill in Jesup, Georgia.

The material used to backfill the excavation was certified clean fill from Johnny Johnson's Borrow Pit and Old Middleburg Borrow Pit. In paved areas and the former location of Building 846, the surface was then graded, seeded, fertilized, and mulched. Previously paved areas were restored with asphalt. No confirmatory sampling and analyses were required per the SARA. Two monitoring wells abandoned prior to excavation activities, CEF-293-03 and CEF-293-08, were replaced. BS/VE components that were disturbed were also replaced.

Detailed information on the removal activities, including photographs, copies of soil manifests, certificates of disposal, and certificate of clean fill, is provided in the SRR (CH2MHill, 2005).

2.2.2 Basin Draining

The spill containment basin was a plastic-lined basin that measured about 120 feet by 120 feet with a depth of approximately 3 feet below grade. The basin had a valved discharge pipe connected to the storm sewer system that was normally closed. When the tank was active, the routine operation was to inspect the basin contents after rainfall, and if no oil was observed, the discharge pipe valve was opened until the basin was empty, then the valve was closed. When the base closed, the discharge valve was left closed, and rainwater gradually accumulated in the basin. Because the basin was no longer needed, the November 2003 SARA also included provisions to drain the basin and breach the liner to eliminate the accumulation of rainwater.

Prior to draining the basin, the RAC sampled and analyzed the water to determine the proper method of disposal. Based on these results, the water was disposed by breaching the liner along the northern end of the basin and allowing the water to infiltrate into the ground (CH2MHill, 2005). After the basin was drained, the plastic liner was cut open in several places. The odor and appearance of the soil under the liner suggested that the soil was contaminated, so further investigation was performed by the RAC.

2.2.3 FID Evaluation of Soil Beneath the Liner

In December 2003, the RAC used an FID to screen soil samples under the liner. Soil samples were collected from intervals of 0 to 2 feet below ground surface (bgs) and 3 to 4 feet bgs for headspace analysis. A layer of hardpan encountered at 4 feet bgs prevented deeper sampling. This information was used to delineate the area of soil contamination based on 50 ppm FID measurements. The figure showing the FID results and 50 ppm line is included in Appendix A. However, the results suggested

contamination deeper than 4 feet bgs, and laboratory analyses were still required to fully delineate the contaminated soil. Therefore, an additional investigation was required.

2.3 BASIN SOIL CONTAMINATION DELINEATION

2.3.1 Field Investigation

In March 2004, TtNUS prepared a soil sampling plan to delineate contamination beneath the basin (TtNUS, 2004a). Sample locations were selected along the 50 ppm line identified by the RAC. A direct push technology (DPT) rig was used to collect soil samples at 1-foot intervals to the water table (about 8 feet bgs) at each location. To screen the samples, soil was placed in a jar, and the concentration of VOCs was measured in the headspace using an FID with a carbon filter to account for methane. The FID readings were recorded along with physical information such as moisture content and the presence of hardpan. At each boring, the interval with the highest FID measurement was analyzed at a laboratory for VOCs, PAHs, and TRPH. Because the purpose of the sampling was to delineate a line where contaminant concentrations were less than FDEP SCTLs, the plan included provisions to omit sample analysis at locations where FID readings were all 0 ppm and to move to new locations where there were measurable FID readings no greater than 50 ppm. Two locations, CEF-57-TW01 and CEF-57-TW02, were specifically selected for laboratory analysis because of high FID measurements recorded by the RAC. Figure 2-2 shows the sample locations and results. The FID results are summarized on Table 2-1. Sampling log sheets are included in Appendix B.

In March 2004, the soil samples were collected and analyzed. These results delineated the horizontal extent of contamination; the results are shown on Figure 2-2 and are summarized on Table 2-2. The plan proposed nine DPT locations, but based on FID results, samples were collected at a total of 16 locations. Ten samples were sent to the laboratory for analysis.

In May 2004, three additional borings (CEF-57-TW17, CEF-57-TW18, and CEF-57-TW19) were advanced along the center of the contaminated area to confirm the depth of contamination. A DPT rig was used to collect samples at 1-foot intervals to the water table at each location. The samples were screened by measuring the headspace with an FID in the field. The first interval encountered in each boring with an FID measurement less than 50 ppm was sent to a laboratory for VOCs, PAHs, and TRPH analyses. These results are also indicated on Table 2-2 and Figure 2-2. Sampling log sheets are included in Appendix B.

Soil samples were collected from the DPT cores as grab samples using plastic, disposable trowels. Sampling activities were performed in general accordance with the procedures described in the U.S. Environmental Protection Agency (U.S. EPA) Region IV Environmental Investigations Standard Operating

Procedures and Quality Assurance Manual (EISOPQAM) (U.S. EPA Region IV, 1996), the RI for Sites 36 and 37 (TtNUS, 1999), FDEP Standard Operating Procedures (SOPs) FS3000, and TtNUS SOPs. As agreed by the Base Realignment and Closure (BRAC) Cleanup Team (BCT), no rinsate and trip blanks were collected. In addition, field blanks were not collected because the decontamination of sampling equipment was minimal.

The soil samples were analyzed for benzene, toluene, ethylbenzene, and xylenes by U.S. EPA Method SW-846 8260B, for PAHs by U.S. EPA Method SW-846 8310 and 8270C, and for TRPH by the Florida Petroleum Residual Organics (FL-PRO) method. Accutest Southeast in Orlando, Florida performed the analyses. Laboratory reports are included in Appendix C.

2.3.2 Basin Soil Excavation Plan

Based on the results of the basin soil sampling, an excavation plan was prepared (TtNUS, 2004b). The extent of the excavation was delineated to meet FDEP residential and leachability SCTLs. This plan called for the excavation and disposal of 3,290 cubic yards of contaminated soil. The areas and depths of the excavation are shown on Figure 2-3.

2.4 BASIN SOIL REMOVAL ACTION ACTIVITIES

A Navy Environmental Multiple Award Contract (EMAC) Contractor, TN and Associates, Inc. (TN), conducted the soil removal activities for the basin from August 2004 through September 2004. TN excavated, transported, and disposed 6,243.1 tons of contaminated soil and restored the site to pre-excavation conditions. Waste characterization was based on existing data. Most of the excavated soil was directly loaded and transported off site for disposal on the same day that it was excavated, although some soil was staged on plastic sheeting prior to loading (TN, 2004).

Confirmatory samples were collected at the limits of the excavation at the start of the excavation activities. Three samples had contaminant concentrations that exceeded the cleanup criteria, so the limits of the excavation were expanded. The soil was excavated using a hydraulic track excavator and loaded into tarp-covered dump trucks provided by Waste Management, Inc. for transportation and disposal. Soils were excavated to the horizontal and vertical excavation limits shown on Figure 2-3 (with adjustments based on the results of the confirmatory samples) and as specified in the SARA (TtNUS, 2003). The excavated soil was transported to the Chesser Island Landfill in Folkston, Georgia. Certified clean backfill was used to fill the excavation and the site was then regraded (TN, 2004).

Detailed information on the removal and disposal activities, including photographs and fill analysis, is provided in the Remedial Action Completion Report (TN, 2004).

2.5 SUMMARY OF SOIL RESULTS

Contaminated soil was delineated to meet FDEP residential and leachability SCTLs during this SARA investigation and the previous SARA investigation. The contaminated soil was excavated and disposed off site and replaced with clean backfill. The site is available for use with no restrictions based on the results of the soil excavation.

2.6 GROUNDWATER INVESTIGATION

At the request of FDEP, a groundwater investigation was completed after the contaminated soil was removed. This phase included the installation of one shallow monitoring well and the collection of a groundwater sample because VOCs, PAHs, and TRPH had been detected a soil sample collected beneath the basin at concentrations greater than FDEP leachability to groundwater SCTLs. The well was installed within the basin excavation footprint, near location CEF-57-TW01, the only soil sample that had contaminant concentrations greater than FDEP criteria (see Figure 2-2). Monitoring well CEF-293-23S was installed on February 16, 2005 and was screened from approximately 5 to 15 feet bgs with 10-foot-long 0.010-inch slotted screen. Well construction materials consisted of 2-inch inside diameter, flush-threaded, polyvinyl chloride (PVC) screen and riser. The monitoring well boring and construction logs are included in Appendix D. The well was sampled (CEF-293-GW-23S-01) on February 22, 2005 and analyzed for VOCs, PAHs, and TRPH. A duplicate sample (CEF-293-GW-DU01-01) was also collected (TtNUS, 2005). The results are discussed in Section 3.0.

The groundwater sample was collected using low-flow sampling techniques. The sampling activities, quality assurance/quality control (QA/QC) procedures, and data validation requirements for field activities were performed in general agreement with the U.S. EPA Region EISOPQAM, FDEP SOPs FS2200, the RI Report for Sites 36 and 37, and TtNUS SOPs. As agreed by the BCT, no rinsate or trip blanks were collected. In addition, field blanks were not collected because the sampling equipment was disposable.

Groundwater samples were analyzed for VOCs using U.S. EPA Method 8260B, for PAHs using U.S. EPA Method SW-846 8310, and for TRPH using the FL-PRO method. ACCUTEST Southeast in Orlando, Florida performed the analyses. The laboratory report is included in Appendix C.

TABLE 2-1

CORRECTED FID HEADSPACE MEASUREMENTS SORTED BY DEPTH
DAY TANK 1 SITE ASSESSMENT REPORT ADDENDUM NO. 2
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Depth[1]	CEF-57-												
	TW01	TW02	TW03	TW04	TW05	TW06	TW07	TW08	TW09	TW10	TW11	TW12	TW13
11' above WT				0									
10' above WT				0									
9' above WT			0	0									
8' above WT			0	0									
7' above WT	252	0	11.3	0	0	0	4.7	78.1	0	91.1	0	0	0
6' above WT	437	4.5	42.1	0	46.2	0	19.5	98.8	0	33	0	3	98.1
5' above WT	398	17.3	82.1	0	341.9	0	0	17	0	103.2	0	1.5	150
4' above WT	168	0	19.4	0	378.6	0	0	20.6	0	40.9	0	2	33
3' above WT	388	1	13.9	0	482.6	0	0	4.8	0	5.8	0	0	25.1
2' above WT	505	5.2	-0.9	0	530	0	0	0	0	2.9	0	0	7
1' above WT	555	4.9	86.2	0	524	7.2	0	0	0	0	0.4	1.3	0.9
Water Table	416	2.5	64.4	0	547	10.5	0	0	0	27.2	0	1.2	3.5

TABLE 2-1

CORRECTED FID HEADSPACE MEASUREMENTS SORTED BY DEPTH
DAY TANK 1 SITE ASSESSMENT REPORT ADDENDUM NO. 2
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Depth[1]	CEF-57-					
	TW14	TW15	TW16	TW17	TW18	TW19
11' above WT		0				
10' above WT		0				
9' above WT		3.5				
8' above WT		1.2				
7' above WT	40	0	146		458.5	557.7
6' above WT	1	106	239		659.3	155.2
5' above WT	110	10.7	102		1104	190.5
4' above WT	61	778	136	637.5	58	48.8
3' above WT	6	920	152	184	57.5	3.1
2' above WT	0	1005	32	113.5	122.7	37
1' above WT	42	1132	29	613.1	490.8	81.4
Water Table	42	956	209	744.6		282.9

NOTES:
WT - Water table.
1 - "Depth" refers to sample elevation relative to water table elevation.
2 - Readings are in parts per million.
3 - Empty cells indicate not measured.
4 - "Corrected" means the result of subtracting the carbon filtered reading from the unfiltered reading to eliminate the interferences by methane.

TABLE 2-2

SOIL ANALYTICAL RESULTS - POSITIVE DETECTIONS
DAY TANK 1 SITE ASSESSMENT REPORT ADDENDUM NO. 2
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

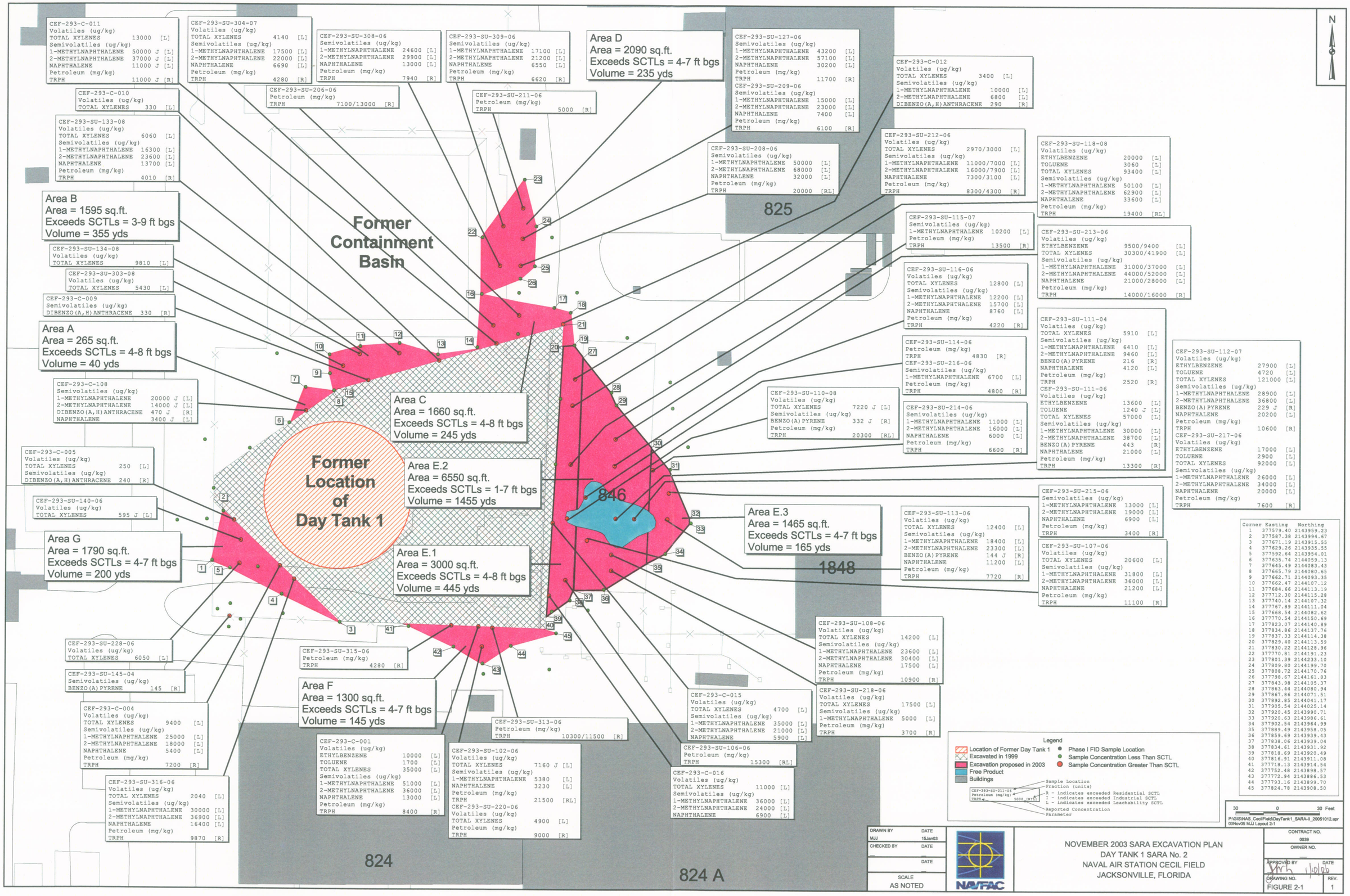
Parameter	FDEP SCTL[1]			CEF-57-					
	Residential Direct Exposure	Industrial Direct Exposure	Leachability to Groundwater	TW-01			TW-04	TW-06	TW-07
				5-6'	6-7'	7-8'	5-6'	7-8'	1-2'
Volatile Organic Compounds, ug/kg									
Ethylbenzene	1,500,000	9,200,000	600	**1,070**	**394**	3.3 U	2.7 U	2.6 U	2.9 U
Total Xylenes	130,000	700,000	200	**8,640**	**3,160**	**14.8 J**	6 U	5.8 U	6.5 U
Semivolatile Organic Compounds, ug/kg									
1-Methylnaphthalene	200,000	1,800,000	3,100	**20,000**	**11,700**	94 U	100 U	98 U	99 U
2-Methylnaphthalene	210,000	2,100,000	8,500	**24,000**	**13,900**	94 U	100 U	98 U	99 U
Naphthalene	55,000	300,000	1,200	**8,960**	**5,070**	94 U	100 U	98 U	99 U
Total Petroleum Hydrcarbons, mg/kg									
TRPH	460	2,700	340	**6,050**	**4,770**	**9.44 J**	6.9 U	6.6 U	**27**
Field Measurements, ppm									
Corrected FID	NC	NC	NC	505	555	416	0	10.5	19.5

TABLE 2-2

SOIL ANALYTICAL RESULTS - POSITIVE DETECTIONS
DAY TANK 1 SITE ASSESSMENT REPORT ADDENDUM NO. 2
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Parameter	FDEP SCTL[1]			CEF-57-						
	Residential Direct Exposure	Industrial Direct Exposure	Leachability to Groundwater	TW-10		TW-11	TW-12	TW-17	TW-18	TW-19
				2-3'	3-4'	5-6'	1-2'	4-5'	3-4'	3-4'
Volatile Organic Compounds, ug/kg										
Ethylbenzene	1,500,000	9,200,000	600	3 U	2.7 U	2.8 U	2.6 U	1.8 U	1.9 U	1.9 U
Total Xylenes	130,000	700,000	200	**122**	**14.8 J**	6.4 U	5.9 U	4.1 U	4.3 U	4.2 U
Semivolatile Organic Compounds, ug/kg										
1-Methylnaphthalene	200,000	1,800,000	3,100	110 U	97 U	98 U	100 U	**183 J**	94 U	99 U
2-Methylnaphthalene	210,000	2,100,000	8,500	110 U	97 U	98 U	100 U	**182 J**	94 U	99 U
Naphthalene	55,000	300,000	1,200	110 U	97 U	98 U	100 U	99 U	94 U	99 U
Total Petroleum Hydrcarbons, mg/kg										
TRPH	460	2,700	340	**13.9**	6.7 U	**13.5**	**29**	6.7 U	**40.9**	6.7 U
Field Measurements, ppm										
Corrected FID	NC	NC	NC	103.2	40.9	0	3	184	57.8	48.8

Bolded values exceed detection limits.
Shaded values exceed the more stringent of residential and leachability criteria.
J = Estimated concentration.
NC = No criterion.
U = Not detected at or above detection limit (associated value).
1 - Florida Department of Environmental Protection Soil Cleanup Target Levels, FAC Chapter 62-777 (FDEP, 2005).



Corner	Easting	Northing
1	377579.40	2143959.23
2	377587.38	2143994.67
3	377671.19	2143915.55
4	377629.26	2143935.55
5	377592.64	2143954.01
6	377635.74	2144059.13
7	377645.49	2144083.43
8	377665.79	2144080.65
9	377662.71	2144093.35
10	377662.47	2144107.12
11	377684.66	2144113.19
12	377712.30	2144115.28
13	377740.14	2144107.32
14	377767.89	2144111.04
15	377668.54	2144082.62
16	377770.54	2144150.69
17	377823.07	2144140.89
18	377834.86	2144137.76
19	377837.33	2144114.38
20	377829.40	2144113.59
21	377830.22	2144128.96
22	377770.81	2144191.23
23	377801.39	2144233.10
24	377809.80	2144199.70
25	377808.72	2144170.76
26	377798.67	2144161.83
27	377843.98	2144105.37
28	377863.44	2144080.94
29	377867.86	2144071.51
30	377892.85	2144041.17
31	377905.54	2144025.14
32	377920.45	2143990.71
33	377920.63	2143986.61
34	377902.54	2143964.99
35	377889.49	2143958.05
36	377859.69	2143939.43
37	377838.06	2143939.04
38	377834.61	2143931.92
39	377818.69	2143920.49
40	377816.91	2143911.08
41	377718.13	2143914.54
42	377752.48	2143898.57
43	377772.94	2143886.53
44	377793.16	2143899.70
45	377824.78	2143908.50

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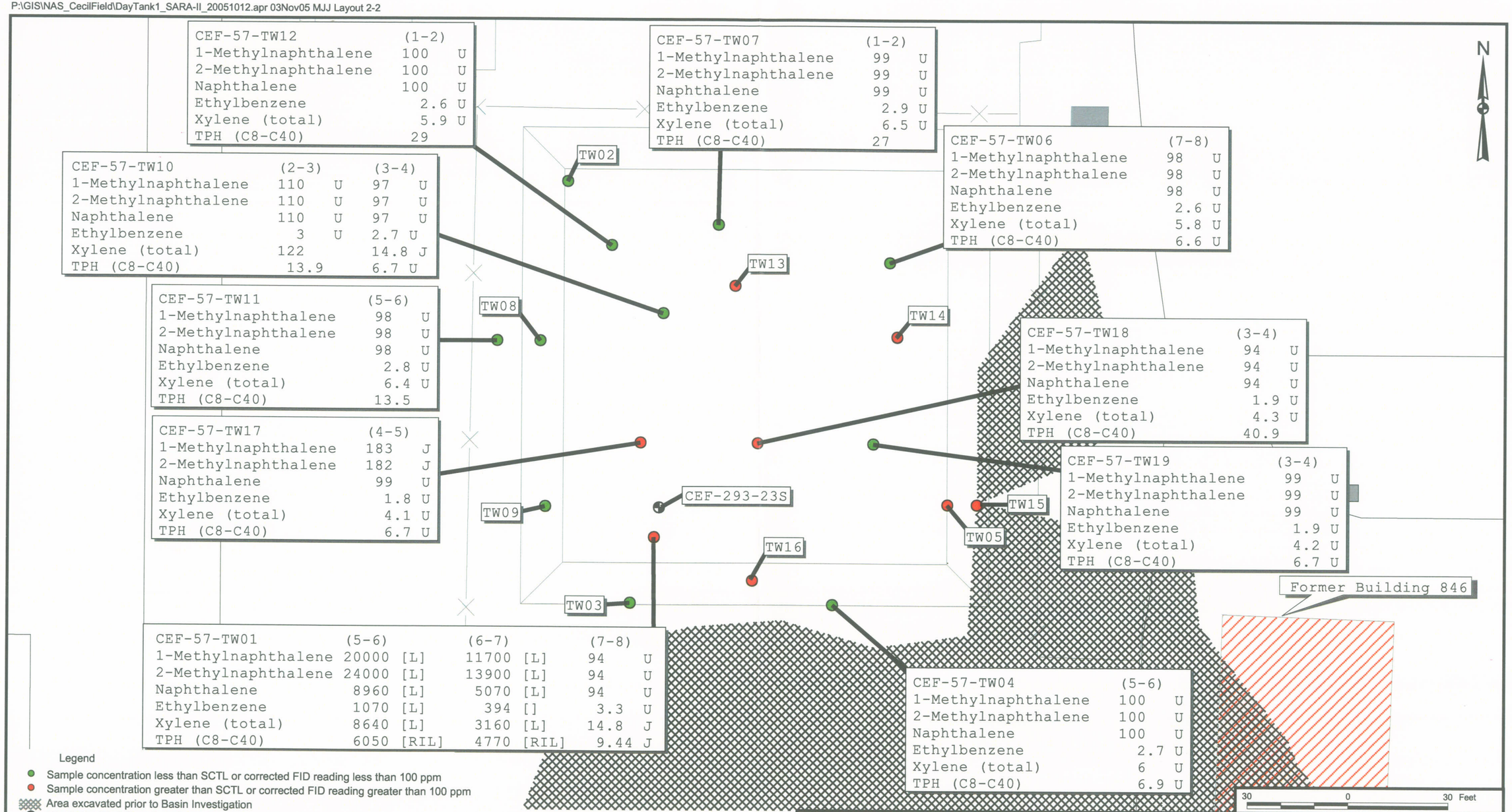

Legend

- Sample concentration less than SCTL or corrected FID reading less than 100 ppm
- Sample concentration greater than SCTL or corrected FID reading greater than 100 ppm
- Area excavated prior to Basin Investigation
- Monitoring Well (installed after excavation)

CEF-57-TW01 (5-6)
1-Methylnaphthalene 20000 [L]

Sample Location
Sample Depth (feet below surface)
R - indicates exceeded Residential SCTL
I - indicates exceeded Industrial SCTL
L - indicates exceeded Leachability SCTL
Reported Concentration
Parameter

DRAWN BY MJJ	DATE 02Jun04
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

NAVFAC

BASIN INVESTIGATION
SAMPLE LOCATIONS AND RESULTS
DAY TANK 1 SARA No. 2
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

CONTRACT NO. 0039	
APPROVED BY	DATE 1/10/06
APPROVED BY	DATE
DRAWING NO. FIGURE 2-2	REV. 0

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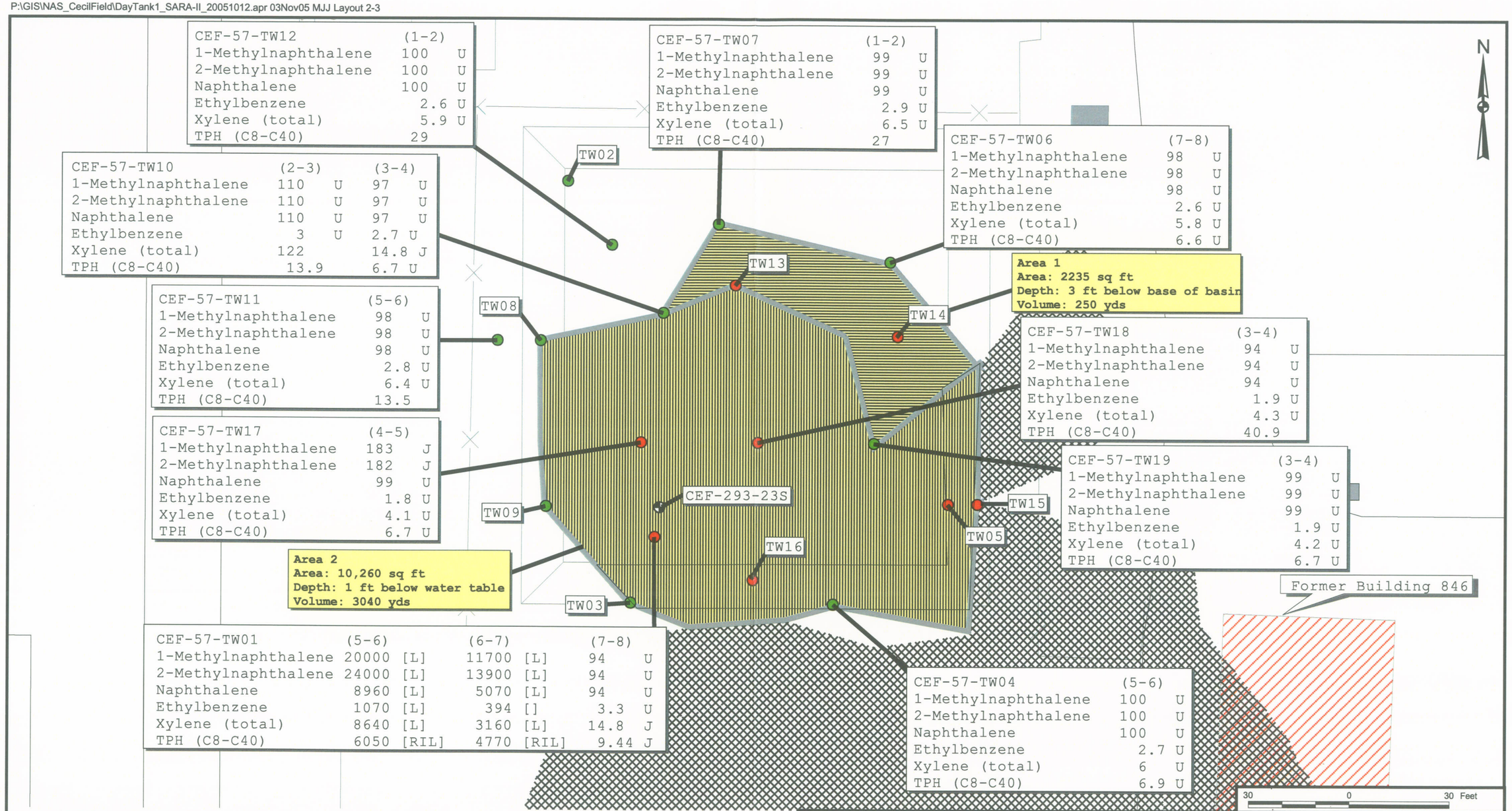

Legend

- Sample concentration less than SCTL or corrected FID reading less than 100 ppm
- Sample concentration greater than SCTL or corrected FID reading greater than 100 ppm
- Areas excavated prior to Basin Investigation
- Areas to be excavated, shallow
- Areas to be excavated, deep
- Monitoring Well (installed after excavation)

CEF-57-TW01 (5-6)
1-Methylnaphthalene 20000 [L]

Sample Location
Sample Depth (feet below surface)
R - indicates exceeded Residential SCTL
I - indicates exceeded Industrial SCTL
L - indicates exceeded Leachability SCTL
Reported Concentration
Parameter

DRAWN BY MJJ	DATE 02Jun04
CHECKED BY	DATE
COST/SCHED-AREA	
SCALE AS NOTED	

NAVFAC

BASIN SOIL EXCAVATION PLAN
DAY TANK 1 SARA No. 2
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

CONTRACT NO. 0039	
APPROVED BY	DATE 1/10/06
APPROVED BY	DATE
DRAWING NO. FIGURE 2-3	REV. 0

3.0 GROUNDWATER

This section briefly summarizes the current status of the groundwater in the source area, where contaminated soil has been removed and disposed off site. This summary is being provided for information purposes because groundwater monitoring at the source is an ongoing operation and maintenance (O&M) activity as part of the RAP. The results of the groundwater sample collected from the monitoring well installed after the excavation are also discussed in this section. Land use controls (LUCs) will be implemented at the site to prevent the use of groundwater for any purpose.

3.1 SUMMARY OF O&M RESULTS

A groundwater treatment system consisting of BS and VE wells was installed as part of the 1997 RAP and has been operating since 2000. Seven wells are currently sampled and analyzed quarterly to monitor the progress of remediation. Until June 2003, contaminant concentrations were less than Groundwater Cleanup Target Levels (GCTLs) and typically less than detection limits. Since then, concentrations of benzene, xylenes, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene have been greater than GCTLs in two monitoring wells (Terraine, 2004b). A summary table of groundwater analytical results from the most recent O&M status report is included in Appendix E (Terraine, 2004b).

3.2 SUMMARY OF BS/VE OPERATION

The BS/VE system was operated from February 2000 to August 2003. The system ran continually except for routine downtime for maintenance and groundwater sampling. The operations are described in the quarterly and annual status reports prepared by the O&M contractors, CH2MHill Constructors, Inc. and Terraine, Inc.

3.3 FREE PRODUCT

Free product was observed at Day Tank 1 during the investigations. The soil removal performed in 1999 included the removal of free product. However, after the BS/VE system was activated in 2000, free product was observed in two VE wells. The free product was bailed from the wells, but continued to be observed in one well (VEW-1). Further investigations identified a small area of free product beneath Building 846 (TtNUS, 2003). This free product plume was excavated as part of the November 2003 SARA activities (TtNUS, 2003). No free product has been observed in the any VE wells since September 2003 (Terraine, 2004a and 2004b).

3.4 GROUNDWATER BENEATH BASIN

One monitoring well (CEF-293-23S) was installed in February 2005 within the basin excavation footprint following the final excavation. During investigations before the 1997 RAP, several piezometers were installed downgradient of the basin to measure the extent of free product, but no groundwater samples were collected for analysis (ABB, 1997).

As noted in Section 2.0, groundwater beneath the basin was sampled in February 2005 and analyzed for VOCs, PAHs, and TRPH. All contaminant concentrations were less than detection limits, and all detection limits were less than GCTLs.

3.5 CONCLUSION

Based on the most recent well observations, no free product is present in the Day Tank 1 area. However, contaminant concentrations exceed GCTLs in two wells in the vicinity of the original excavation, and groundwater monitoring will continue under the current program. No groundwater contamination was detected in the vicinity of the basin excavation, so no additional groundwater monitoring in this area is required.

4.0 NO FURTHER ACTION PROPOSAL

No Further Action is proposed for Day Tank 1 soils only. As described in this SARA No. 2, the site meets most of the conditions for No Further Action described in 62-770.680(1) FAC, Risk Management Options Level I:

- Free product in not present and no fire or explosive hazard exists [62-770.680(1)(a) FAC].

- A priority ranking score for this site was never developed. Based on the distance of NAS Cecil Field water supply wells to the site, the score probably would have been greater than 10. In any case, contamination was delineated with laboratory analyses rather than FID measurements. [62-770.680(1)(b) FAC].

- Contaminated soil has been removed so that residential and leachability SCTLs (as listed in 62-777 FAC) have been met. Contaminant concentrations are less than SCTLs and no upper confidence limits were calculated. Synthetic Precipitation Leaching Procedure testing was used to demonstrate that leachate concentrations of TRPH do not exceed the GCTL. [62-770.680(1)(c)(1.)(a.)(I), 62-770.680(1)(c)(1.)(c.), 62-770.680(1)(c)(2.)(a.)(I), 62-770.680(1)(c)(2.)(c.), 62-770.680(1)(c)(2.)(e.), and 62-770.680(1)(c)(2.)(f.) FAC].

- Surface water is not affected by the groundwater [62-770.680(1)(e) FAC].

However, concentrations of contaminants in groundwater are greater than GCTLs, so the site groundwater does not meet the No Further Action requirements of 62-770.680(1)(d) FAC, and monitoring will continue under the existing RAP O&M program.

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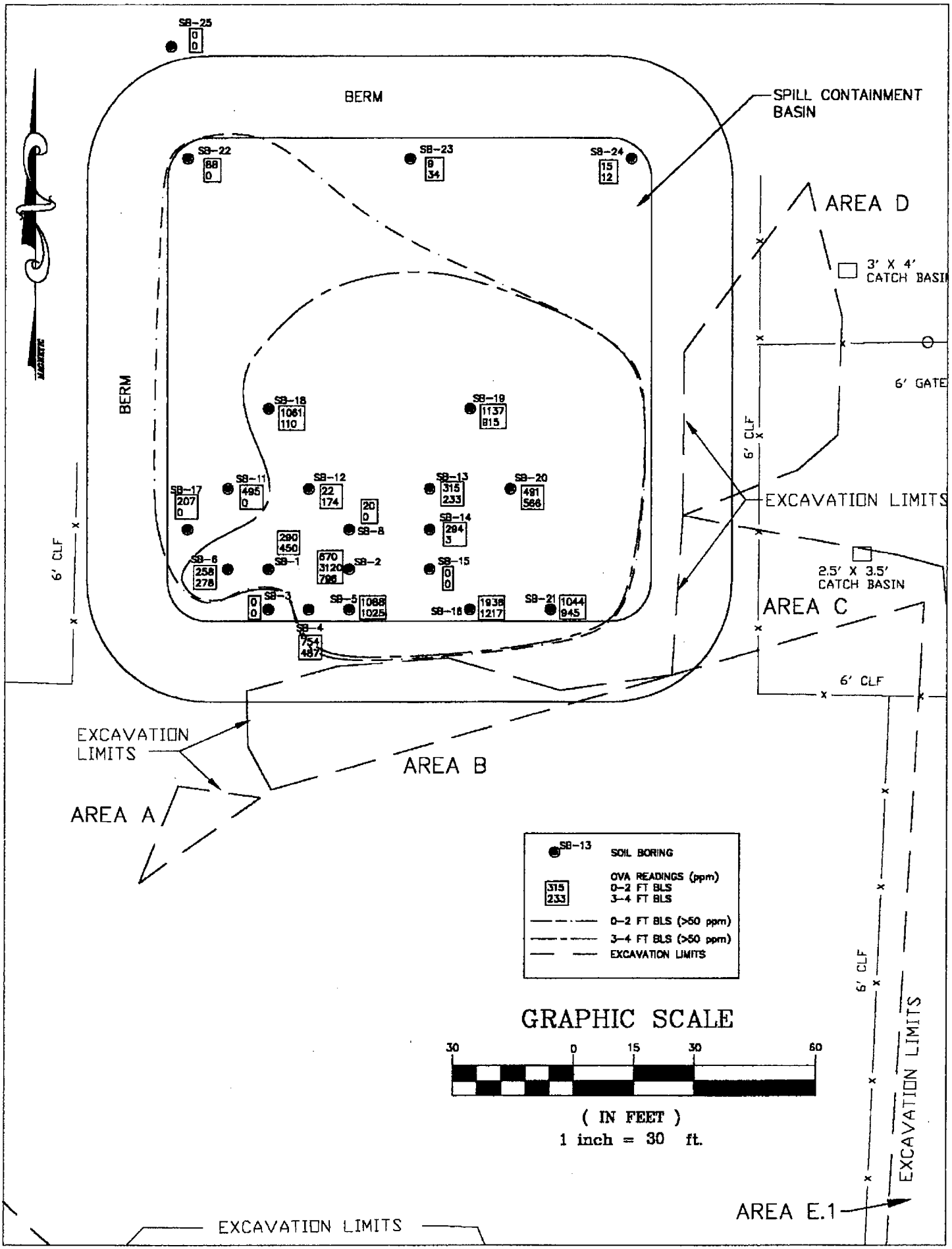
APPENDIX A

RAC FID RESULTS FIGURE


SB-25
0
0
BERM
SPILL CONTAINMENT BASIN
SB-22
88
0
SB-23
8
34
SB-24
15
12
AREA D
3' X 4' CATCH BASIN
6' GATE
BERM
SB-18
1061
110
SB-19
1137
815
6' CLF
SB-17
207
0
SB-11
495
0
SB-12
22
174
SB-13
315
233
SB-20
491
566
EXCAVATION LIMITS
20
0
SB-8
SB-14
294
3
290
450
SB-6
258
278
SB-1
670
3120
798
SB-2
SB-15
0
0
2.5' X 3.5' CATCH BASIN
0
0
SB-3
SB-5
1088
1025
SB-16
1938
1217
SB-21
1044
945
AREA C
SB-4
754
487
6' CLF
6' CLF
EXCAVATION LIMITS
AREA B
AREA A
SB-13
SOIL BORING
315
233
OVA READINGS (ppm)
0-2 FT BLS
3-4 FT BLS
0-2 FT BLS (>50 ppm)
3-4 FT BLS (>50 ppm)
EXCAVATION LIMITS
6' CLF
GRAPHIC SCALE
30
0
15
30
60
(IN FEET)
1 inch = 30 ft.
EXCAVATION LIMITS
AREA E.1
EXCAVATION LIMITS

APPENDIX B

SAMPLING LOG SHEETS

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.:
Sample Location: TW01
Sampled By: CM/DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-17-04	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
	0-1 ft	348	96	
Method:	1-2 ft	755	318	
	2-3 ft	1222	824	
	3-4 ft	330	162	
Monitor Readings	4-5 ft	518	130	
(Range in ppm):	5-6 ft	517	12	
	6-7 ft	557	2	
	7-8 ft	419	3	
	8-9 ft		Water Table	
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	No	Accutest
Vols Soil (5035)	40 ml glass vial	No	Accutest

OBSERVATIONS / NOTES:

Delineating Excavation Limits
Water Table ≃ 9ft

NS = Not Sampled

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): C. Mes

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.: CEF-57 TW-1 (6,7,8)
Sample Location: TW1
Sampled By: DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-19-04			
Time: 845, 850, 855	6		Brown, Dk. Brown, Lt. Brown
Method: GRAB	7		
Monitor Reading (ppm): 0	8		

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	0-1 ft			
Method:	5-6 ft			Brown, Dk. Brown, Lt. Brown Sands & Silt
	6-7 ft			" "
	7-8 ft			" "
Monitor Readings (Range in ppm):	4-5 ft			
	5-6 ft			
	6-7 ft			
	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035) 8260B	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

Petro Odor

MAP:

See map

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.:
Sample Location: TW02
Sampled By: CM
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-15-04
Method:
Monitor Readings (Range in ppm): 0ppm

Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
0-1 ft	0	0	brn/blk fine sand (dry)
1-2 ft	34.8	30.3	brn/blk moist fine sand
2-3 ft	41.3	24.0	orange/brn ~~dry~~ dry hardpan
3-4 ft	0	0	↓
4-5 ft	1.0	0	↓
5-6 ft	5.2	0	↓
6-7 ft	4.9	0	brn fine dry sand
7-8 ft	2.5	0	brn fine dry sand
8-9 ft			water Table
9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	No.	Accutest
Vols Soil (5035)	40 ml glass vial	No	Accutest

OBSERVATIONS / NOTES:

Delineating Excavation Limits
Water Table ≃ 9 ft

NS = Not Sampled

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Charlie Mc

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.: TW-3
Sample Location:
Sampled By:
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color		Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Time:	10-11	746	25	
Method:				
Monitor Reading (ppm):	11-12	541	29	

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-17-04	0-1 ft	0		
Method:	1-2 ft	0		
	2-3 ft	12.1	0.8	
	3-4 ft	42.6	0.5	
Monitor Readings (Range in ppm):	4-5 ft	82.3	0.2	
	5-6 ft	19.5	0.1	
	6-7 ft	23.1	9.2	
	7-8 ft	22.0	22.9	
	8-9 ft	88.0	1.8	
	9-10 ft	677	3.3	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	No	Accutest
Vols Soil (5035)	40 ml glass vial	No	Accutest

OBSERVATIONS / NOTES:

Delineating Excavation Limits
Water Table ≃ 9 ft

NS = Not Sampled

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.:
Sample Location: TW04
Sampled By: CM
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-16-04	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
	0-1 ft	0	10-11 ft = 0	black/brn fine sand w/organic
Method:	1-2 ft		11-12 ft = 0	debris
	2-3 ft			
	3-4 ft			
Monitor Readings	4-5 ft			
(Range in ppm):	5-6 ft			hardpan (orange/brn fine sand)
	6-7 ft			
	7-8 ft			
	8-9 ft			brn → light brn fine sand
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	No	Accutest
Vols Soil (5035)	40 ml glass vial	No	Accutest

OBSERVATIONS / NOTES:

Delineating Excavation Limits
Water Table ≃ 11.5 ft
NS = Not Sampled
* This location is on top of retention pond bank (≃3 ft high) Went to 12 ft BLS.

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Charles Mecca

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.: CEF-57-TW 04-6
Sample Location: TW 04
Sampled By: DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

Date: 3-19-04	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1020 Method: Grab Monitor Reading (ppm):	6	Dk Brown	"GRUSTY" DRY - Hard pan area Silty Sand.

COMPOSITE SAMPLE DATA:

Date:	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
	0-1 ft			
Method:	1-2 ft			
	2-3 ft			
	3-4 ft			
Monitor Readings	4-5 ft			
(Range in ppm):	5-6 ft			
	6-7 ft			
	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	DS	Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

Hard pan area - Crusty

MAP:

See map

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.:
Sample Location: TW05
Sampled By: CM
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-16-04
Method:
Monitor Readings (Range in ppm): 0

Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
0-1 ft	0	—	black organic fine sand
1-2 ft	47.3	1.1	↓
2-3 ft	346	4.1	orange/brwn hardpan fine sand
3-4 ft	393	14.4	↓
4-5 ft	498	15.4	↓
5-6 ft	530	—0	↓
6-7 ft	524	0	light brwn fine sand
7-8 ft	547	0	↓ black petroleum stain
8-9 ft			Water Table
9-10 ft			

petroleum stains

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	No	Accutest
Vols Soil (5035)	40 ml glass vial	No	Accutest

OBSERVATIONS / NOTES:

Delineating Excavation Limits
Water Table ≃ 9 ft

NS = Not Sampled

* Strong fuel odor. *

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Charla McC

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.:
Sample Location: TW06
Sampled By: CM
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-15-04
Method:
Monitor Readings (Range in ppm): 0 ppm

Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
0-1 ft	0	0	dry brwn/blk fine sand
1-2 ft	0	0	moist brwn fine sand
2-3 ft	0	0	hard pan } orange/brwn sand (fn)
3-4 ft	0	0	hardpan } orange/brwn sand (fn)
4-5 ft	0	0	hardpan } orange/brwn sand (fn)
5-6 ft	0	0	hardpan } orange/brwn sand (fn)
6-7 ft	7.2	0	dry brwn fine sand
7-8 ft	19.4	8.9	moist brwn fine sand
8-9 ft			
9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	NO	Accutest
Vols Soil (5035)	40 ml glass vial	NO	Accutest

OBSERVATIONS / NOTES:

Delineating excavation limits
water Table ≃ 9 ft

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Charla Mc

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.: CEF-57-TW6-8
Sample Location: TW-6
Sampled By: DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-19-04	8	Brown	Silty Sand
Time: 1115			
Method: GRA			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	0-1 ft			
Method:	1-2 ft			
	2-3 ft			
	7-8 ft			Brown Silty Sand
Monitor Readings (Range in ppm):	4-5 ft			
	5-6 ft			
	6-7 ft			
	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

See map

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.:
Sample Location: TW07
Sampled By: CM
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-15-04	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
	0-1 ft	8.5	3.8	gray/black fine sand
Method:	1-2 ft	41.3	21.8	black fine sand (moist)
	2-3 ft	0	0	orange/brn hardpan
	3-4 ft			dry fine sand
Monitor Readings	4-5 ft			
(Range in ppm):	5-6 ft			
	6-7 ft			Turning light brn/fine
0ppm	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	NO	Accutest
Vols Soil (5035)	40 ml glass vial	NO	Accutest

OBSERVATIONS / NOTES:

Delineating excavation limits

water Table ≃ 9 FT

MAP:

See (N0039) Log book

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Charla McG

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: N0039

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

Sample ID No.: CEF 57 - TW-07-2
Sample Location: TW-07
Sampled By: DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-19-04 Time: 0945 Method: GRAB Monitor Reading (ppm):	2	Dk Brown	Silty Sand Dry

~~COMPOSITE~~ SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	0-1 ft			
Method:	1-2 ft			Dk Brown Silty Sand
	2-3 ft			
	3-4 ft			
Monitor Readings (Range in ppm):	4-5 ft			
	5-6 ft			
	6-7 ft			
	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	DS	Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): RDL

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.:
Sample Location: TW08
Sampled By: CM
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-15-04	0-1 ft	78.1	0	gray fine sand w/ limestone rock
Method:	1-2 ft	98.8	0	gray/brn fine sand
	2-3 ft	17.0	0	dk brn fine se
	3-4 ft	73.1	52.5	orang/brn hard pan
Monitor Readings	4-5 ft	4.8	—	fine dry sand
(Range in ppm):	5-6 ft	0	—	
0ppm	6-7 ft	0	—	orange fine sand
	7-8 ft	0	—	brn
	8-9 ft	NS		
	9-10 ft	NS		

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	NO	Accutest
Vols Soil (5035)	40 ml glass vial	NO	Accutest

OBSERVATIONS / NOTES:

Delineating excavation limits
Water Table ≃ 9 FT
NS = NOT Sampled

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Charles Mes

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: N0039

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

Sample ID No.:
Sample Location: TW09
Sampled By: CM
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-15-04
Method:
Monitor Readings (Range in ppm): 0ppm

Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
0-1 ft		—	gray/blk fine sand
1-2 ft		—	black fine sand
2-3 ft		—	brwn/orange hardpan
3-4 ft		—	dry fine sand
4-5 ft		—	
5-6 ft		—	
6-7 ft		—	brwn fine sand
7-8 ft		—	brwn fine sand
8-9 ft	NS		water table
9-10 ft	NS		

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	NO	Accutest
Vols Soil (5035)	40 ml glass vial	NO	Accutest

OBSERVATIONS / NOTES:

Delineating excavation limits
water table ≃ 9 ft

NS = Not Sampled

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Chaila Mc

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.:
Sample Location: TW10
Sampled By: CM
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-16-04	0-1 ft	97.1	6.0	black fine sand
Method:	1-2 ft	57.1	24.1	brown/blk fine sand
	2-3 ft	150.7	47.5	
	3-4 ft	63.4	22.5	orange/brn hardpan (fine sand)
Monitor Readings (Range in ppm): 0	4-5 ft	5.8	0	↓
	5-6 ft	2.9	0	↓
	6-7 ft	0	0	light brn fine sand
	7-8 ft	45.1	17.9	↓
	8-9 ft		Water Table	
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	No	Accutest
Vols Soil (5035)	40 ml glass vial	No	Accutest

OBSERVATIONS / NOTES:

Delineating Excavation Limits
Water Table ≃ 9 ft

NS = Not Sampled

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Charles M[illegible]

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: N0039

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

Sample ID No.: CFF-57-TW 10-3
Sample Location: TW 10
Sampled By: DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-19-04			
Time: 0830	3	Dark Brown	Silty Sand, moist
Method: GRB	4	do	"
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	0-1 ft			
Method:	1-2 ft			
	2-3 ft			Silty Sand Dk Brown moist
	3-4 ft			"
Monitor Readings (Range in ppm):	4-5 ft			
	5-6 ft			
	6-7 ft			
	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

See map

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): RJC

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.: CEF.DT.TW 10-4
Sample Location: TW 07
Sampled By: OJ
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-19-04			
Time: 0945	4	Dk Brown	Silty SAND
Method:			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	0-1 ft			
Method:	1-2 ft			
	2-3 ft			
	3-4 ft			
Monitor Readings	4-5 ft			
(Range in ppm):	5-6 ft			
	6-7 ft			
	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

see map

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.:
Sample Location: TW11
Sampled By: CMIDS
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:			
Method:	11 0.3	0	
Monitor Reading (ppm):	12 3.7	0	

COMPOSITE SAMPLE DATA:

Date: 3-17-04	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
	0-1 ft	0	0	
Method:	1-2 ft	0	0	
	2-3 ft	0	0	
	3-4 ft	0	0	
Monitor Readings	4-5 ft	0	0	
(Range in ppm):	5-6 ft	0	0	
	6-7 ft	1.3	0.9	
	7-8 ft	1.2	1.2	
	8-9 ft	1.3	1.3	
	9-10 ft	0	0	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	No	Accutest
Vols Soil (5035)	40 ml glass vial	No	Accutest

OBSERVATIONS / NOTES:

Delineating Excavation Limits
Water Table ≃ 9 ft

NS = Not Sampled

MAP:

See (N0039) Logbook

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.: LEF-57-TW 11-7
Sample Location: TW 11
Sampled By: DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9-19-04 Time: 1340 Method: Monitor Reading (ppm):	7	Dk Brown	Silty Sand.

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	0-1 ft			
Method:	1-2 ft			
	2-3 ft			
	3-4 ft			
Monitor Readings (Range in ppm):	4-5 ft			
	5-6 ft			
	6-7 ft			
	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	RS	Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

See map

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): RS

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.:
Sample Location: TW12
Sampled By: cm
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-17-04	0-1 ft	0		
Method:	1-2 ft	3.0	0	
	2-3 ft	1.5	0	
	3-4 ft	2.0	0	
Monitor Readings (Range in ppm): 0	4-5 ft	0		
	5-6 ft	0		
	6-7 ft	0		
	7-8 ft	0		
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: N0039

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

Sample ID No.: CBF-57-TW12-2
Sample Location: TW 12
Sampled By: DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-19-04 Time: 1320 Method: GRAB Monitor Reading (ppm):	2	Dk Brown	Silty Sand

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date:	0-1 ft			
Method:	1-2 ft			
	2-3 ft			
	3-4 ft			
Monitor Readings (Range in ppm):	4-5 ft			
	5-6 ft			
	6-7 ft			
	7-8 ft			
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	DS	Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

See map

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.:
Sample Location: TW13
Sampled By: CM/DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-17-04	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
	0-1 ft	0	—	
Method:	1-2 ft	249	150.9	100
	2-3 ft	552	402	150
	3-4 ft	142	109	33
Monitor Readings	4-5 ft	86.1	61	25
(Range in ppm):	5-6 ft	19.4	12.4	7
	6-7 ft	23.5	22.6	1
0	7-8 ft	61.9	58.4	3
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.:
Sample Location: TW14
Sampled By: CMDS
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-17-04	0-1 ft	117	77	SO
Method:	1-2 ft	73	72	1
	2-3 ft	180	70	110
	3-4 ft	128	67	61
Monitor Readings	4-5 ft	35	29	6
(Range in ppm):	5-6 ft	22	23	0
0	6-7 ft	82	40	42
	7-8 ft	112	70	42
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.:
Sample Location: TW19
Sampled By:
C.O.C. No.:

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

GRAB SAMPLE DATA:

	Depth	VOC, Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:			
Time:	10-11	1132	
Method:			
Monitor Reading (ppm):	11-12	956	

COMPOSITE SAMPLE DATA:

	Depth	Unfiltered	Filtered	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 3-17-04	0-1 ft	0	—	
Method:	1-2 ft	0	—	
	2-3 ft	3.5	—	
	3-4 ft	1.2	—	
Monitor Readings (Range in ppm):	4-5 ft	0	—	
	5-6 ft	106	0	
	6-7 ft	10.7	0	
	7-8 ft	778	0	
	8-9 ft	920	0	
	9-10 ft	100.5	0	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: **Day Tank One**
Project No.: **N0039**

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

Sample ID No.:
Sample Location: TW16
Sampled By: CM/DS
C.O.C. No.:

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

GRAB SAMPLE DATA:

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

COMPOSITE SAMPLE DATA:

Date: 3-17-04	Depth	Unfiltered	Filtered	~~Description (Sand, Silt, Clay, Moisture, etc.)~~ TOTAL
	0-1 ft	146	0	146
Method:	1-2 ft	239	0	236
	2-3 ft	102	0	102
	3-4 ft	158	22	136
Monitor Readings	4-5 ft	186	34	152
(Range in ppm):	5-6 ft	32	0	32
	6-7 ft	29	0	29
0	7-8 ft	209	0	209
	8-9 ft			
	9-10 ft			

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar		Accutest
Vols Soil (5035)	40 ml glass vial		Accutest

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.: CEF-57-TW17-05
Sample Location: TW-17
Sampled By: S. McGuire
C.O.C. No.: DTI-051004

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-10-04 Time: 1305 Method: Trowel Monitor Reading (ppm):	5'	Med Brn	Fi sand Dry

COMPOSITE SAMPLE DATA:

Date:	Depth	Unfiltered	← Filtered COR		Description (Sand, Silt, Clay, Moisture, etc.)
	0-1 ft				No recovery
Method:	1-2 ft				↓
	2-3 ft				
	3-4 ft	648.0	10.5	637.5	Med to Dk Brn Fi sand, Damp
Monitor Readings (Range in ppm):	4-5 ft	260.0	76.0	184.0	Med Brn Fi sand Dry
	5-6 ft	200.1	86.6	113.5	Med Brn / Reddish Fi sand, Damp
	6-7 ft	652.8	39.7	613.1	Med Brn / Reddish Fi sand ↓
	7-8 ft	777.9	33.3	744.6	Med Brn / Reddish Fi sand, ↓
	8-9 ft				
	9-10 ft				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	1 – 8 oz. glass jar	✓	Accutest
Vols Soil (5035)	3 – 40 ml glass vial	✓	Accutest

OBSERVATIONS / NOTES:

Very little recovery 0-4' sample tube. Approximately 1 ft of soil.

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.: None	Signature(s): Scott R. McGuire

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.: CEF-57-TW18-04
Sample Location: TW-18
Sampled By: S. McGuire
C.O.C. No.: DT1-05004

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

GRAB SAMPLE DATA:

Date: 5-10-04
Time: 1220
Method: Trowel
Monitor Reading (ppm):

Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
4	Med Brn Red	Fi sand dry

COMPOSITE SAMPLE DATA:

Date: 5-10-04
Method:
Monitor Readings (Range in ppm):

Depth	Unfiltered	Filtered	COR	Description (Sand, Silt, Clay, Moisture, etc.)
0-1 ft	529.0	70.5	458.5	Gray to Dark Brn Fi sand Damp
1-2 ft	1596.0	936.7	659.3	Dark Brn with Organics
2-3 ft	2210.0	1106	1104	Dark Brn Fi sand
3-4 ft	295.0	237.2	58.0	Dark to Med Brn Fi sand
4-5 ft	90.2	32.7	57.5	Brn Reddish Fi sand
5-6 ft	198.2	75.5	122.7	Med Brn Fi sand
6-7 ft	850.1	359.3	490.8	Med Brn Fi sand wet
7-8 ft				
8-9 ft				
9-10 ft				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	1 - 8 oz. glass jar	✓	Accutest
Vols Soil (5035)	3 - 40 ml glass vial	✓	Accutest

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.: None

Signature(s): Scott R. McG

Tetra Tech NUS, Inc.

SOIL SAMPLE LOG SHEET

Project Site Name: Day Tank One
Project No.: N0039

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

Sample ID No.: CEF-57-TW19-04
Sample Location: TW-19
Sampled By: S. McGuire
C.O.C. No.: DTI-051004

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

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5-10-04 Time: 1120 Method: Trowel Monitor Reading (ppm): 48.8	4'	Med Brn	Fi sand dry

COMPOSITE SAMPLE DATA:

Date: 5-10-04	Depth	Unfiltered	← Filtered	Carried to QAR	Description (Sand, Silt, Clay, Moisture, etc.)
	0-1 ft	632.5	74.8	557.7	Gray to med brown fi sand
Method:	1-2 ft	352.6	197.4	155.2	DK Brn Fi sand
	2-3 ft	393.1	202.6	190.5	Brn to Reddish fi sand
	3-4 ft	328.7	279.9	48.8	Med Brn fi sand
Monitor Readings	4-5 ft	24.6	21.5	3.10	Med Brn fi sand
(Range in ppm):	5-6 ft	86.0	49.0	37.0	Med Brn fi sand
	6-7 ft	139.9	58.5	81.4	Med Brn fi sand moist
	7-8 ft	603.1	320.2	282.9	Med Brn fi sand wet/saturated
	8-9 ft	22.5	27.1	NR	↓ ↓
	9-10 ft	69.8	35.1	34.7	

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	LAB
PAHs + TRPH (8310, 8270, and FL-PRO)	8 oz. glass jar	✓	Accutest
Vols Soil (5035)	40 ml glass vial	✓	Accutest

OBSERVATIONS / NOTES:

NR = Not readable: Methane content high.

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.: None

Signature(s): Scott R. McGuire

APPENDIX C

LABORATORY ANALYTICAL DATA

APPENDIX C

The data and data validation reports will be provided in electronic form in the final pdf only. The SDG numbers of the laboratory reports are listed below.

Event	Laboratory	SDG numbers
March 2004	Accutest	F22923 (Soil)
May 2004	Accutest	F24092 (Soil)
February 2005	Accutest	F29984 (Groundwater)

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**M. SPERANZA**	**DATE:**	**MAY 27, 2004**
FROM:	**BERNARD F SPADA III**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOC/PAH/TPH**
CTO 078, NAS CECIL FIELD
SDG F22923

SAMPLES: 10/Soil

CEF-57-TW01-6	CEF-57-TW01-7	CEF-57-TW01-8
CEF-57-TW10-3	CEF-57-TW10-4	CEF-57-TW11-6
CEF-57-TW12-2	CEF-57-TW4-6	CEF-57-TW6-8
CEF-57-TW7-2		

OVERVIEW

The sample set for CTO 078, NAS Cecil Field, SDG F22923 consists of ten (10) environmental soil samples. All samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) volatile organic compounds (VOC), polynuclear aromatic hydrocarbons (PAH), and total petroleum hydrocarbons (TPH).

The samples were collected by TetraTech NUS on March 19, 2004 and analyzed by Accutest Laboratories. All analyses were conducted in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria using SW-846 Methods 8260B and 8310 and Florida-PRO analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
* • Initial and continuing calibration
* • Laboratory method and field quality control blank results
  • Detection Limits

The symbol (*) indicates that all 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

Samples CEF-57-TW01-6 and CEF-57-TW01-7 were analyzed using a methanol extraction. This accounts for the elevated reporting limits for all non-detected compounds in the aforementioned samples.

The internal standard tert-butyl alcohol-d10 was below the percent recovery quality control criteria in sample CEF-57-TW01-8 and the MS of sample CEF-57-TW10-4. No qualifications were made on this basis because none of the reported compounds were associated with this internal standard.

Positive results below the reporting limit were qualified as estimated (J) due to uncertainty near the detection limit.

PAH

Samples CEF-57-TW01-6 and CEF-57-TW01-7 had elevated reporting limits for acenaphthene, acenaphthylene, fluorene, and phenanthrene. No qualifications were made on this basis.

All PAH Form Is were re-submitted because the initial version did not contain the complete list of PAHs.

TPH

Samples CEF-57-TW01-6 and CEF-57-TW01-7 exhibited 0% surrogate recovery. No qualifications were made on this basis because the samples were analyzed at 100X dilutions.

Positive results below the reporting limit were qualified as estimated (J) due to uncertainty near the detection limit.

EXECUTIVE SUMMARY

Laboratory Performance Issues: The PAH Form Is were initially submitted with an incomplete compound list.

Other Factors Affecting Data Quality: None.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99) and the NFESC guidelines (September, 1999). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC guidelines and the Quality Assurance Project Plan (QAPP)."

Bernard F Spada III

Tetra Tech NUS
Bernard F Spada III
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation 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

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 = 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 (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 = % 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 less than sample activity

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: OV

nsample	CEF-57-TW01-6	nsample	CEF-57-TW01-7	nsample	CEF-57-TW01-8
samp_date	3/19/2004	samp_date	3/19/2004	samp_date	3/19/2004
lab_id	F22923-1	lab_id	F22923-2	lab_id	F22923-3
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	85.6	Pct_Solids	89.4	Pct_Solids	88.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	160	U	
ETHYLBENZENE	1070		
TOLUENE	160	U	
TOTAL XYLENES	8640		

Parameter	Result	Val Qual	Qual Code
BENZENE	150	U	
ETHYLBENZENE	394		
TOLUENE	150	U	
TOTAL XYLENES	3160		

Parameter	Result	Val Qual	Qual Code
BENZENE	3.3	U	
ETHYLBENZENE	3.3	U	
TOLUENE	3.3	U	
TOTAL XYLENES	14.8	J	P

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: OV

nsample	CEF-57-TW10-3
samp_date	3/19/2004
lab_id	F22923-4
qc_type	NM
units	UG/KG
Pct_Solids	74.4
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	3	U	
ETHYLBENZENE	3	U	
TOLUENE	3	U	
TOTAL XYLENES	122		

nsample	CEF-57-TW10-4
samp_date	3/19/2004
lab_id	F22923-5
qc_type	NM
units	UG/KG
Pct_Solids	83.7
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	2.7	U	
ETHYLBENZENE	2.7	U	
TOLUENE	2.7	U	
TOTAL XYLENES	14.8	J	P

nsample	CEF-57-TW11-6
samp_date	3/19/2004
lab_id	F22923-10
qc_type	NM
units	UG/KG
Pct_Solids	82.6
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	2.8	U	
ETHYLBENZENE	2.8	U	
TOLUENE	2.8	U	
TOTAL XYLENES	6.4	U	

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: OV

nsample	CEF-57-TW12-2
samp_date	3/19/2004
lab_id	F22923-9
qc_type	NM
units	UG/KG
Pct_Solids	80.7
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	2.6	U	
ETHYLBENZENE	2.6	U	
TOLUENE	2.6	U	
TOTAL XYLENES	5.9	U	

nsample	CEF-57-TW4-6
samp_date	3/19/2004
lab_id	F22923-7
qc_type	NM
units	UG/KG
Pct_Solids	82.3
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	2.7	U	
ETHYLBENZENE	2.7	U	
TOLUENE	2.7	U	
TOTAL XYLENES	6	U	

nsample	CEF-57-TW6-8
samp_date	3/19/2004
lab_id	F22923-8
qc_type	NM
units	UG/KG
Pct_Solids	84.7
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	2.6	U	
ETHYLBENZENE	2.6	U	
TOLUENE	2.6	U	
TOTAL XYLENES	5.8	U	

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: OV

nsample	CEF-57-TW7-2
samp_date	3/19/2004
lab_id	F22923-6
qc_type	NM
units	UG/KG
Pct_Solids	84.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	2.9	U	
ETHYLBENZENE	2.9	U	
TOLUENE	2.9	U	
TOTAL XYLENES	6.5	U	

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: PAH

nsample	CEF-57-TW01-6	nsample	CEF-57-TW01-7	nsample	CEF-57-TW01-8
samp_date	3/19/2004	samp_date	3/19/2004	samp_date	3/19/2004
lab_id	F22923-1	lab_id	F22923-2	lab_id	F22923-3
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	85.6	Pct_Solids	89.4	Pct_Solids	88.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	20000		
2-METHYLNAPHTHALENE	24000		
ACENAPHTHENE	1500	U	
ACENAPHTHYLENE	1500	U	
ANTHRACENE	190	U	
BENZO(A)ANTHRACENE	95	U	
BENZO(A)PYRENE	19	U	
BENZO(B)FLUORANTHENE	19	U	
BENZO(G,H,I)PERYLENE	19	U	
BENZO(K)FLUORANTHENE	19	U	
CHRYSENE	95	U	
DIBENZO(A,H)ANTHRACENE	19	U	
FLUORANTHENE	95	U	
FLUORENE	1500	U	
INDENO(1,2,3-CD)PYRENE	19	U	
NAPHTHALENE	8960		
PHENANTHRENE	1500	U	
PYRENE	95	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	11700		
2-METHYLNAPHTHALENE	13900		
ACENAPHTHENE	740	U	
ACENAPHTHYLENE	740	U	
ANTHRACENE	190	U	
BENZO(A)ANTHRACENE	93	U	
BENZO(A)PYRENE	19	U	
BENZO(B)FLUORANTHENE	19	U	
BENZO(G,H,I)PERYLENE	19	U	
BENZO(K)FLUORANTHENE	19	U	
CHRYSENE	93	U	
DIBENZO(A,H)ANTHRACENE	19	U	
FLUORANTHENE	93	U	
FLUORENE	740	U	
INDENO(1,2,3-CD)PYRENE	19	U	
NAPHTHALENE	5070		
PHENANTHRENE	740	U	
PYRENE	93	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	94	U	
2-METHYLNAPHTHALENE	94	U	
ACENAPHTHENE	190	U	
ACENAPHTHYLENE	190	U	
ANTHRACENE	190	U	
BENZO(A)ANTHRACENE	94	U	
BENZO(A)PYRENE	19	U	
BENZO(B)FLUORANTHENE	19	U	
BENZO(G,H,I)PERYLENE	19	U	
BENZO(K)FLUORANTHENE	19	U	
CHRYSENE	94	U	
DIBENZO(A,H)ANTHRACENE	19	U	
FLUORANTHENE	94	U	
FLUORENE	190	U	
INDENO(1,2,3-CD)PYRENE	19	U	
NAPHTHALENE	94	U	
PHENANTHRENE	190	U	
PYRENE	94	U	

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: PAH

nsample	CEF-57-TW10-3	nsample	CEF-57-TW10-4	nsample	CEF-57-TW11-6
samp_date	3/19/2004	samp_date	3/19/2004	samp_date	3/19/2004
lab_id	F22923-4	lab_id	F22923-5	lab_id	F22923-10
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	74.4	Pct_Solids	83.7	Pct_Solids	82.6
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	110	U	
2-METHYLNAPHTHALENE	110	U	
ACENAPHTHENE	220	U	
ACENAPHTHYLENE	220	U	
ANTHRACENE	220	U	
BENZO(A)ANTHRACENE	110	U	
BENZO(A)PYRENE	22	U	
BENZO(B)FLUORANTHENE	22	U	
BENZO(G,H,I)PERYLENE	22	U	
BENZO(K)FLUORANTHENE	22	U	
CHRYSENE	110	U	
DIBENZO(A,H)ANTHRACENE	22	U	
FLUORANTHENE	110	U	
FLUORENE	220	U	
INDENO(1,2,3-CD)PYRENE	22	U	
NAPHTHALENE	110	U	
PHENANTHRENE	220	U	
PYRENE	110	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	97	U	
2-METHYLNAPHTHALENE	97	U	
ACENAPHTHENE	190	U	
ACENAPHTHYLENE	190	U	
ANTHRACENE	190	U	
BENZO(A)ANTHRACENE	97	U	
BENZO(A)PYRENE	19	U	
BENZO(B)FLUORANTHENE	19	U	
BENZO(G,H,I)PERYLENE	19	U	
BENZO(K)FLUORANTHENE	19	U	
CHRYSENE	97	U	
DIBENZO(A,H)ANTHRACENE	19	U	
FLUORANTHENE	97	U	
FLUORENE	190	U	
INDENO(1,2,3-CD)PYRENE	19	U	
NAPHTHALENE	97	U	
PHENANTHRENE	190	U	
PYRENE	97	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	98	U	
2-METHYLNAPHTHALENE	98	U	
ACENAPHTHENE	200	U	
ACENAPHTHYLENE	200	U	
ANTHRACENE	200	U	
BENZO(A)ANTHRACENE	98	U	
BENZO(A)PYRENE	20	U	
BENZO(B)FLUORANTHENE	20	U	
BENZO(G,H,I)PERYLENE	20	U	
BENZO(K)FLUORANTHENE	20	U	
CHRYSENE	98	U	
DIBENZO(A,H)ANTHRACENE	20	U	
FLUORANTHENE	98	U	
FLUORENE	200	U	
INDENO(1,2,3-CD)PYRENE	20	U	
NAPHTHALENE	98	U	
PHENANTHRENE	200	U	
PYRENE	98	U	

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: PAH

nsample	CEF-57-TW12-2	nsample	CEF-57-TW4-6	nsample	CEF-57-TW6-8
samp_date	3/19/2004	samp_date	3/19/2004	samp_date	3/19/2004
lab_id	F22923-9	lab_id	F22923-7	lab_id	F22923-8
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	80.7	Pct_Solids	82.3	Pct_Solids	84.7
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	100	U	
2-METHYLNAPHTHALENE	100	U	
ACENAPHTHENE	200	U	
ACENAPHTHYLENE	200	U	
ANTHRACENE	200	U	
BENZO(A)ANTHRACENE	100	U	
BENZO(A)PYRENE	20	U	
BENZO(B)FLUORANTHENE	20	U	
BENZO(G,H,I)PERYLENE	20	U	
BENZO(K)FLUORANTHENE	20	U	
CHRYSENE	100	U	
DIBENZO(A,H)ANTHRACENE	20	U	
FLUORANTHENE	100	U	
FLUORENE	200	U	
INDENO(1,2,3-CD)PYRENE	20	U	
NAPHTHALENE	100	U	
PHENANTHRENE	200	U	
PYRENE	100	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	100	U	
2-METHYLNAPHTHALENE	100	U	
ACENAPHTHENE	200	U	
ACENAPHTHYLENE	200	U	
ANTHRACENE	200	U	
BENZO(A)ANTHRACENE	100	U	
BENZO(A)PYRENE	20	U	
BENZO(B)FLUORANTHENE	20	U	
BENZO(G,H,I)PERYLENE	20	U	
BENZO(K)FLUORANTHENE	20	U	
CHRYSENE	100	U	
DIBENZO(A,H)ANTHRACENE	20	U	
FLUORANTHENE	100	U	
FLUORENE	200	U	
INDENO(1,2,3-CD)PYRENE	20	U	
NAPHTHALENE	100	U	
PHENANTHRENE	200	U	
PYRENE	100	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	98	U	
2-METHYLNAPHTHALENE	98	U	
ACENAPHTHENE	200	U	
ACENAPHTHYLENE	200	U	
ANTHRACENE	200	U	
BENZO(A)ANTHRACENE	98	U	
BENZO(A)PYRENE	20	U	
BENZO(B)FLUORANTHENE	20	U	
BENZO(G,H,I)PERYLENE	20	U	
BENZO(K)FLUORANTHENE	20	U	
CHRYSENE	98	U	
DIBENZO(A,H)ANTHRACENE	20	U	
FLUORANTHENE	98	U	
FLUORENE	200	U	
INDENO(1,2,3-CD)PYRENE	20	U	
NAPHTHALENE	98	U	
PHENANTHRENE	200	U	
PYRENE	98	U	

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: PAH

nsample	CEF-57-TW7-2
samp_date	3/19/2004
lab_id	F22923-6
qc_type	NM
units	UG/KG
Pct_Solids	84.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	99	U	
2-METHYLNAPHTHALENE	99	U	
ACENAPHTHENE	200	U	
ACENAPHTHYLENE	200	U	
ANTHRACENE	200	U	
BENZO(A)ANTHRACENE	99	U	
BENZO(A)PYRENE	20	U	
BENZO(B)FLUORANTHENE	20	U	
BENZO(G,H,I)PERYLENE	20	U	
BENZO(K)FLUORANTHENE	20	U	
CHRYSENE	99	U	
DIBENZO(A,H)ANTHRACENE	20	U	
FLUORANTHENE	99	U	
FLUORENE	200	U	
INDENO(1,2,3-CD)PYRENE	20	U	
NAPHTHALENE	99	U	
PHENANTHRENE	200	U	
PYRENE	99	U	

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: PET

nsample	CEF-57-TW01-6	nsample	CEF-57-TW01-7	nsample	CEF-57-TW01-8
samp_date	3/19/2004	samp_date	3/19/2004	samp_date	3/19/2004
lab_id	F22923-1	lab_id	F22923-2	lab_id	F22923-3
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	85.6	Pct_Solids	89.4	Pct_Solids	88.0
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	6050		

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	4770		

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	9.44	J	P

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: PET

nsample	CEF-57-TW10-3	nsample	CEF-57-TW10-4	nsample	CEF-57-TW11-6
samp_date	3/19/2004	samp_date	3/19/2004	samp_date	3/19/2004
lab_id	F22923-4	lab_id	F22923-5	lab_id	F22923-10
qc_type	NM	qc_type	NM	qc_type	NM
units	MG/KG	units	MG/KG	units	MG/KG
Pct_Solids	74.4	Pct_Solids	83.7	Pct_Solids	82.6
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	13.9		

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	6.7	U	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	13.5		

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: PET

nsample	CEF-57-TW12-2
samp_date	3/19/2004
lab_id	F22923-9
qc_type	NM
units	MG/KG
Pct_Solids	80.7
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	29		

nsample	CEF-57-TW4-6
samp_date	3/19/2004
lab_id	F22923-7
qc_type	NM
units	MG/KG
Pct_Solids	82.3
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	6.9	U	

nsample	CEF-57-TW6-8
samp_date	3/19/2004
lab_id	F22923-8
qc_type	NM
units	MG/KG
Pct_Solids	84.7
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	6.6	U	

PROJ_NO: 0039

SDG: F22923 MEDIA: SOIL DATA FRACTION: PET

nsample	CEF-57-TW7-2
samp_date	3/19/2004
lab_id	F22923-6
qc_type	NM
units	MG/KG
Pct_Solids	84.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	27		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW01-6		
Lab Sample ID:	F22923-1	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	85.6
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016358.D	1	03/31/04	NAF	n/a	n/a	VK738
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.73 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	390	160	ug/kg	
108-88-3	Toluene	ND	390	160	ug/kg	
100-41-4	Ethylbenzene	1070	390	160	ug/kg	
1330-20-7	Xylene (total)	8640	1200	350	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		78-123%
2037-26-5	Toluene-D8	102%		71-137%
460-00-4	4-Bromofluorobenzene	105%		61-157%
17060-07-0	1,2-Dichloroethane-D4	98%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW01-7		
Lab Sample ID:	F22923-2	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	89.4
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016321.D	1	03/30/04	NAF	n/a	n/a	VK737
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.74 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	370	150	ug/kg	
108-88-3	Toluene	ND	370	150	ug/kg	
100-41-4	Ethylbenzene	394	370	150	ug/kg	
1330-20-7	Xylene (total)	3160	1100	340	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		78-123%
2037-26-5	Toluene-D8	100%		71-137%
460-00-4	4-Bromofluorobenzene	117%		61-157%
17060-07-0	1,2-Dichloroethane-D4	99%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW01-8		
Lab Sample ID:	F22923-3	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	88.0
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016342.D	1	03/31/04	NAF	n/a	n/a	VK738
Run #2							

	Initial Weight
Run #1	3.43 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	8.3	3.3	ug/kg	
108-88-3	Toluene	ND	8.3	3.3	ug/kg	
100-41-4	Ethylbenzene	ND	8.3	3.3	ug/kg	
1330-20-7	Xylene (total)	14.8	25	7.5	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		78-123%
2037-26-5	Toluene-D8	102%		71-137%
460-00-4	4-Bromofluorobenzene	106%		61-157%
17060-07-0	1,2-Dichloroethane-D4	89%		74-125%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW10-3		
Lab Sample ID:	F22923-4	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	74.4
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016312.D	1	03/30/04	NAF	n/a	n/a	VK737
Run #2							

	Initial Weight
Run #1	4.55 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	7.4	3.0	ug/kg	
108-88-3	Toluene	ND	7.4	3.0	ug/kg	
100-41-4	Ethylbenzene	ND	7.4	3.0	ug/kg	
1330-20-7	Xylene (total)	122	22	6.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		78-123%
2037-26-5	Toluene-D8	100%		71-137%
460-00-4	4-Bromofluorobenzene	108%		61-157%
17060-07-0	1,2-Dichloroethane-D4	101%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW10-4		
Lab Sample ID:	F22923-5	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	83.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016313.D	1	03/30/04	NAF	n/a	n/a	VK737
Run #2							

	Initial Weight
Run #1	4.44 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.7	2.7	ug/kg	
108-88-3	Toluene	ND	6.7	2.7	ug/kg	
100-41-4	Ethylbenzene	ND	6.7	2.7	ug/kg	
1330-20-7	Xylene (total)	14.8	20	6.1	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		78-123%
2037-26-5	Toluene-D8	99%		71-137%
460-00-4	4-Bromofluorobenzene	104%		61-157%
17060-07-0	1,2-Dichloroethane-D4	101%		74-125%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW11-6		
Lab Sample ID:	F22923-10	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	82.6
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016352.D	1	03/31/04	NAF	n/a	n/a	VK738
Run #2							

	Initial Weight
Run #1	4.25 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	7.1	2.8	ug/kg	
108-88-3	Toluene	ND	7.1	2.8	ug/kg	
100-41-4	Ethylbenzene	ND	7.1	2.8	ug/kg	
1330-20-7	Xylene (total)	ND	21	6.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		78-123%
2037-26-5	Toluene-D8	103%		71-137%
460-00-4	4-Bromofluorobenzene	112%		61-157%
17060-07-0	1,2-Dichloroethane-D4	98%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW12-2		
Lab Sample ID:	F22923-9	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	80.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016319.D	1	03/30/04	NAF	n/a	n/a	VK737
Run #2							

	Initial Weight
Run #1	4.76 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.5	2.6	ug/kg	
108-88-3	Toluene	ND	6.5	2.6	ug/kg	
100-41-4	Ethylbenzene	ND	6.5	2.6	ug/kg	
1330-20-7	Xylene (total)	ND	20	5.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		78-123%
2037-26-5	Toluene-D8	101%		71-137%
460-00-4	4-Bromofluorobenzene	110%		61-157%
17060-07-0	1,2-Dichloroethane-D4	100%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW4-6		
Lab Sample ID:	F22923-7	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	82.3
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016317.D	1	03/30/04	NAF	n/a	n/a	VK737
Run #2							

	Initial Weight
Run #1	4.55 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.7	2.7	ug/kg	
108-88-3	Toluene	ND	6.7	2.7	ug/kg	
100-41-4	Ethylbenzene	ND	6.7	2.7	ug/kg	
1330-20-7	Xylene (total)	ND	20	6.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		78-123%
2037-26-5	Toluene-D8	100%		71-137%
460-00-4	4-Bromofluorobenzene	103%		61-157%
17060-07-0	1,2-Dichloroethane-D4	103%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW6-8		
Lab Sample ID:	F22923-8	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	84.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016318.D	1	03/30/04	NAF	n/a	n/a	VK737
Run #2							

	Initial Weight
Run #1	4.56 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.5	2.6	ug/kg	
108-88-3	Toluene	ND	6.5	2.6	ug/kg	
100-41-4	Ethylbenzene	ND	6.5	2.6	ug/kg	
1330-20-7	Xylene (total)	ND	19	5.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		78-123%
2037-26-5	Toluene-D8	100%		71-137%
460-00-4	4-Bromofluorobenzene	101%		61-157%
17060-07-0	1,2-Dichloroethane-D4	102%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW7-2		
Lab Sample ID:	F22923-6	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	SW846 8260B	**Percent Solids:**	84.0
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K016314.D	1	03/30/04	NAF	n/a	n/a	VK737
Run #2							

	Initial Weight
Run #1	4.15 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	7.2	2.9	ug/kg	
108-88-3	Toluene	ND	7.2	2.9	ug/kg	
100-41-4	Ethylbenzene	ND	7.2	2.9	ug/kg	
1330-20-7	Xylene (total)	ND	22	6.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		78-123%
2037-26-5	Toluene-D8	104%		71-137%
460-00-4	4-Bromofluorobenzene	121%		61-157%
17060-07-0	1,2-Dichloroethane-D4	103%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW01-6		
Lab Sample ID:	F22923-1	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	85.6
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022705.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2 [a]	EE022768.D	8	04/06/04	MRE	04/01/04	OP10113	GEE918

	Initial Weight	Final Volume
Run #1	30.8 g	5.0 ml
Run #2	30.8 g	5.0 ml

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND [b]	6100	1500	ug/kg	
208-96-8	Acenaphthylene	ND [b]	6100	1500	ug/kg	
120-12-7	Anthracene	ND	380	190	ug/kg	
56-55-3	Benzo(a)anthracene	ND	380	95	ug/kg	
50-32-8	Benzo(a)pyrene	ND	76	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	76	19	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	76	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	76	19	ug/kg	
218-01-9	Chrysene	ND	380	95	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	76	19	ug/kg	
206-44-0	Fluoranthene	ND	380	95	ug/kg	
86-73-7	Fluorene	ND [b]	3000	1500	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	76	19	ug/kg	
91-20-3	Naphthalene	8960 [b]	3000	760	ug/kg	
90-12-0	1-Methylnaphthalene	20000 [b]	3000	760	ug/kg	
91-57-6	2-Methylnaphthalene	24000 [b]	3000	760	ug/kg	
85-01-8	Phenanthrene	ND [b]	3000	1500	ug/kg	
129-00-0	Pyrene	ND	380	95	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	195% [c]	197%	49-124%
92-94-4	p-Terphenyl	90%	88%	56-141%

(a) All hits confirmed by spectral match using a diode array detector.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW01-7		
Lab Sample ID:	F22923-2	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	89.4
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022706.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2 [a]	EE022769.D	4	04/06/04	MRE	04/01/04	OP10113	GEE918

	Initial Weight	Final Volume
Run #1	30.1 g	5.0 ml
Run #2	30.1 g	5.0 ml

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND [b]	3000	740	ug/kg	
208-96-8	Acenaphthylene	ND [b]	3000	740	ug/kg	
120-12-7	Anthracene	ND	370	190	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	93	ug/kg	
50-32-8	Benzo(a)pyrene	ND	74	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	74	19	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	74	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	74	19	ug/kg	
218-01-9	Chrysene	ND	370	93	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	74	19	ug/kg	
206-44-0	Fluoranthene	ND	370	93	ug/kg	
86-73-7	Fluorene	ND [b]	1500	740	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	74	19	ug/kg	
91-20-3	Naphthalene	5070 [b]	1500	370	ug/kg	
90-12-0	1-Methylnaphthalene	11700 [b]	1500	370	ug/kg	
91-57-6	2-Methylnaphthalene	13900 [b]	1500	370	ug/kg	
85-01-8	Phenanthrene	ND [b]	1500	740	ug/kg	
129-00-0	Pyrene	ND	370	93	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	157% [c]	153%	49-124%
92-94-4	p-Terphenyl	93%	92%	56-141%

(a) All hits confirmed by spectral match using a diode array detector.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	CEF-57-TW01-8		
Lab Sample ID:	F22923-3	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	88.0
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022707.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	760	190	ug/kg	
208-96-8	Acenaphthylene	ND	760	190	ug/kg	
120-12-7	Anthracene	ND	380	190	ug/kg	
56-55-3	Benzo(a)anthracene	ND	380	94	ug/kg	
50-32-8	Benzo(a)pyrene	ND	76	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	76	19	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	76	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	76	19	ug/kg	
218-01-9	Chrysene	ND	380	94	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	76	19	ug/kg	
206-44-0	Fluoranthene	ND	380	94	ug/kg	
86-73-7	Fluorene	ND	380	190	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	76	19	ug/kg	
91-20-3	Naphthalene	ND	380	94	ug/kg	
90-12-0	1-Methylnaphthalene	ND	380	94	ug/kg	
91-57-6	2-Methylnaphthalene	ND	380	94	ug/kg	
85-01-8	Phenanthrene	ND	380	190	ug/kg	
129-00-0	Pyrene	ND	380	94	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		49-124%
92-94-4	p-Terphenyl	98%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	CEF-57-TW10-3		
Lab Sample ID:	F22923-4	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	74.4
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022708.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	890	220	ug/kg	
208-96-8	Acenaphthylene	ND	890	220	ug/kg	
120-12-7	Anthracene	ND	450	220	ug/kg	
56-55-3	Benzo(a)anthracene	ND	450	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	89	22	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	89	22	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	89	22	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	89	22	ug/kg	
218-01-9	Chrysene	ND	450	110	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	89	22	ug/kg	
206-44-0	Fluoranthene	ND	450	110	ug/kg	
86-73-7	Fluorene	ND	450	220	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	89	22	ug/kg	
91-20-3	Naphthalene	ND	450	110	ug/kg	
90-12-0	1-Methylnaphthalene	ND	450	110	ug/kg	
91-57-6	2-Methylnaphthalene	ND	450	110	ug/kg	
85-01-8	Phenanthrene	ND	450	220	ug/kg	
129-00-0	Pyrene	ND	450	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		49-124%
92-94-4	p-Terphenyl	94%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	CEF-57-TW10-4		
Lab Sample ID:	F22923-5	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	83.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022709.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	780	190	ug/kg	
208-96-8	Acenaphthylene	ND	780	190	ug/kg	
120-12-7	Anthracene	ND	390	190	ug/kg	
56-55-3	Benzo(a)anthracene	ND	390	97	ug/kg	
50-32-8	Benzo(a)pyrene	ND	78	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	78	19	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	78	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	78	19	ug/kg	
218-01-9	Chrysene	ND	390	97	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	78	19	ug/kg	
206-44-0	Fluoranthene	ND	390	97	ug/kg	
86-73-7	Fluorene	ND	390	190	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	78	19	ug/kg	
91-20-3	Naphthalene	ND	390	97	ug/kg	
90-12-0	1-Methylnaphthalene	ND	390	97	ug/kg	
91-57-6	2-Methylnaphthalene	ND	390	97	ug/kg	
85-01-8	Phenanthrene	ND	390	190	ug/kg	
129-00-0	Pyrene	ND	390	97	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		49-124%
92-94-4	p-Terphenyl	91%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	CEF-57-TW11-6		
Lab Sample ID:	F22923-10	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	82.6
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022715.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	790	200	ug/kg	
208-96-8	Acenaphthylene	ND	790	200	ug/kg	
120-12-7	Anthracene	ND	390	200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	390	98	ug/kg	
50-32-8	Benzo(a)pyrene	ND	79	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	79	20	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	79	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	79	20	ug/kg	
218-01-9	Chrysene	ND	390	98	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	79	20	ug/kg	
206-44-0	Fluoranthene	ND	390	98	ug/kg	
86-73-7	Fluorene	ND	390	200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	79	20	ug/kg	
91-20-3	Naphthalene	ND	390	98	ug/kg	
90-12-0	1-Methylnaphthalene	ND	390	98	ug/kg	
91-57-6	2-Methylnaphthalene	ND	390	98	ug/kg	
85-01-8	Phenanthrene	ND	390	200	ug/kg	
129-00-0	Pyrene	ND	390	98	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		49-124%
92-94-4	p-Terphenyl	91%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	CEF-57-TW12-2		
Lab Sample ID:	F22923-9	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	80.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022714.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	820	200	ug/kg	
208-96-8	Acenaphthylene	ND	820	200	ug/kg	
120-12-7	Anthracene	ND	410	200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	410	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	82	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	82	20	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	82	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	82	20	ug/kg	
218-01-9	Chrysene	ND	410	100	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	82	20	ug/kg	
206-44-0	Fluoranthene	ND	410	100	ug/kg	
86-73-7	Fluorene	ND	410	200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	82	20	ug/kg	
91-20-3	Naphthalene	ND	410	100	ug/kg	
90-12-0	1-Methylnaphthalene	ND	410	100	ug/kg	
91-57-6	2-Methylnaphthalene	ND	410	100	ug/kg	
85-01-8	Phenanthrene	ND	410	200	ug/kg	
129-00-0	Pyrene	ND	410	100	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		49-124%
92-94-4	p-Terphenyl	94%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

3.7

Client Sample ID:	CEF-57-TW4-6		
Lab Sample ID:	F22923-7	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	82.3
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022712.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	810	200	ug/kg	
208-96-8	Acenaphthylene	ND	810	200	ug/kg	
120-12-7	Anthracene	ND	400	200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	400	100	ug/kg	
50-32-8	Benzo(a)pyrene	ND	81	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	81	20	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	81	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	81	20	ug/kg	
218-01-9	Chrysene	ND	400	100	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	81	20	ug/kg	
206-44-0	Fluoranthene	ND	400	100	ug/kg	
86-73-7	Fluorene	ND	400	200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	81	20	ug/kg	
91-20-3	Naphthalene	ND	400	100	ug/kg	
90-12-0	1-Methylnaphthalene	ND	400	100	ug/kg	
91-57-6	2-Methylnaphthalene	ND	400	100	ug/kg	
85-01-8	Phenanthrene	ND	400	200	ug/kg	
129-00-0	Pyrene	ND	400	100	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		49-124%
92-94-4	p-Terphenyl	86%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW6-8		
Lab Sample ID:	F22923-8	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	84.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022713.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	780	200	ug/kg	
208-96-8	Acenaphthylene	ND	780	200	ug/kg	
120-12-7	Anthracene	ND	390	200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	390	98	ug/kg	
50-32-8	Benzo(a)pyrene	ND	78	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	78	20	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	78	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	78	20	ug/kg	
218-01-9	Chrysene	ND	390	98	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	78	20	ug/kg	
206-44-0	Fluoranthene	ND	390	98	ug/kg	
86-73-7	Fluorene	ND	390	200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	78	20	ug/kg	
91-20-3	Naphthalene	ND	390	98	ug/kg	
90-12-0	1-Methylnaphthalene	ND	390	98	ug/kg	
91-57-6	2-Methylnaphthalene	ND	390	98	ug/kg	
85-01-8	Phenanthrene	ND	390	200	ug/kg	
129-00-0	Pyrene	ND	390	98	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		49-124%
92-94-4	p-Terphenyl	99%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

ACCUTEST Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW7-2		
Lab Sample ID:	F22923-6	Date Sampled:	03/19/04
Matrix:	SO - Soil	Date Received:	03/20/04
Method:	EPA 8310 SW846 3550B	Percent Solids:	84.0
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE022710.D	1	04/05/04	MRE	04/01/04	OP10113	GEE917
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	790	200	ug/kg	
208-96-8	Acenaphthylene	ND	790	200	ug/kg	
120-12-7	Anthracene	ND	400	200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	400	99	ug/kg	
50-32-8	Benzo(a)pyrene	ND	79	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	79	20	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	79	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	79	20	ug/kg	
218-01-9	Chrysene	ND	400	99	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	79	20	ug/kg	
206-44-0	Fluoranthene	ND	400	99	ug/kg	
86-73-7	Fluorene	ND	400	200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	79	20	ug/kg	
91-20-3	Naphthalene	ND	400	99	ug/kg	
90-12-0	1-Methylnaphthalene	ND	400	99	ug/kg	
91-57-6	2-Methylnaphthalene	ND	400	99	ug/kg	
85-01-8	Phenanthrene	ND	400	200	ug/kg	
129-00-0	Pyrene	ND	400	99	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		49-124%
92-94-4	p-Terphenyl	96%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW01-6		
Lab Sample ID:	F22923-1	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	85.6
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36679.D	100	03/29/04	SM	03/25/04	OP10063	GOP1190
Run #2							

	Initial Weight	Final Volume
Run #1	29.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	6050	980	670	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		59-121%

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW01-7		
Lab Sample ID:	F22923-2	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	89.4
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36680.D	100	03/29/04	SM	03/25/04	OP10063	GOP1190
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	4770	910	620	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% [a]		59-121%

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW01-8		
Lab Sample ID:	F22923-3	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	88.0
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36681.D	1	03/29/04	SM	03/25/04	OP10063	GOP1190
Run #2							

	Initial Weight	Final Volume
Run #1	29.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	9.44	9.6	6.5	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW10-3		
Lab Sample ID:	F22923-4	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	74.4
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36658.D	1	03/27/04	SM	03/25/04	OP10063	GOP1189
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	13.9	11	7.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW10-4		
Lab Sample ID:	F22923-5	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	83.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36659.D	1	03/27/04	SM	03/25/04	OP10063	GOP1189
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	9.9	6.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW11-6		
Lab Sample ID:	F22923-10	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	82.6
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36665.D	1	03/28/04	SM	03/25/04	OP10063	GOP1189
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	13.5	10	6.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW12-2		
Lab Sample ID:	F22923-9	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	80.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36664.D	1	03/27/04	SM	03/25/04	OP10063	GOP1189
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	29.0	10	6.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW4-6		
Lab Sample ID:	F22923-7	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	82.3
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36661.D	1	03/27/04	SM	03/25/04	OP10063	GOP1189
Run #2							

	Initial Weight	Final Volume
Run #1	29.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	10	6.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW6-8		
Lab Sample ID:	F22923-8	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	84.7
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36662.D	1	03/27/04	SM	03/25/04	OP10063	GOP1189
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	9.7	6.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW7-2		
Lab Sample ID:	F22923-6	**Date Sampled:**	03/19/04
Matrix:	SO - Soil	**Date Received:**	03/20/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	84.0
Project:	NAS Cecil Field-CTO-161		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP36660.D	1	03/27/04	SM	03/25/04	OP10063	GOP1189
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	27.0	9.9	6.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG F22923

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCS	%	CEF-57-TW01-8	F22923-3	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW01-7	F22923-2	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW10-3	F22923-4	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW10-4	F22923-5	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW11-6	F22923-10	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW12-2	F22923-9	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW4-6	F22923-7	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW6-8	F22923-8	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW7-2	F22923-6	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
PCS	%	CEF-57-TW01-6	F22923-1	NM	03/19/2004	03/27/2004	03/27/2004	8	0	8
OV	%	CEF-57-TW01-8	F22923-3	NM	03/19/2004	03/31/2004	03/31/2004	12	0	12
OV	%	CEF-57-TW7-2	F22923-6	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	%	CEF-57-TW01-6	F22923-1	NM	03/19/2004	03/31/2004	03/31/2004	12	0	12
OV	%	CEF-57-TW10-3	F22923-4	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	%	CEF-57-TW10-4	F22923-5	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	CEF-57-TW11-6	F22923-10	NM	03/19/2004	03/31/2004	03/31/2004	12	0	12
OV	%	CEF-57-TW12-2	F22923-9	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	%	CEF-57-TW4-6	F22923-7	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	%	CEF-57-TW6-8	F22923-8	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	%	CEF-57-TW01-7	F22923-2	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	UG/KG	CEF-57-TW01-8	F22923-3	NM	03/19/2004	03/31/2004	03/31/2004	12	0	12
OV	UG/KG	CEF-57-TW7-2	F22923-6	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	UG/KG	CEF-57-TW6-8	F22923-8	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	UG/KG	CEF-57-TW4-6	F22923-7	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	UG/KG	CEF-57-TW12-2	F22923-9	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	UG/KG	CEF-57-TW11-6	F22923-10	NM	03/19/2004	03/31/2004	03/31/2004	12	0	12
OV	UG/KG	CEF-57-TW10-3	F22923-4	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	UG/KG	CEF-57-TW01-7	F22923-2	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
OV	UG/KG	CEF-57-TW01-6	F22923-1	NM	03/19/2004	03/31/2004	03/31/2004	12	0	12
OV	UG/KG	CEF-57-TW10-4	F22923-5	NM	03/19/2004	03/30/2004	03/30/2004	11	0	11
PAH	%	CEF-57-TW10-3	F22923-4	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW01-6	F22923-1	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW01-6	F22923-1	NM	03/19/2004	04/01/2004	04/06/2004	13	5	18

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PAH	%	CEF-57-TW01-7	F22923-2	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW7-2	F22923-6	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW01-7	F22923-2	NM	03/19/2004	04/01/2004	04/06/2004	13	5	18
PAH	%	CEF-57-TW01-8	F22923-3	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW11-6	F22923-10	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW12-2	F22923-9	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW4-6	F22923-7	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW6-8	F22923-8	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	%	CEF-57-TW10-4	F22923-5	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW11-6	F22923-10	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW7-2	F22923-6	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW6-8	F22923-8	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW01-6	F22923-1	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW12-2	F22923-9	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW10-4	F22923-5	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW01-8	F22923-3	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW01-7	F22923-2	NM	03/19/2004	04/01/2004	04/06/2004	13	5	18
PAH	UG/KG	CEF-57-TW01-7	F22923-2	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PAH	UG/KG	CEF-57-TW01-6	F22923-1	NM	03/19/2004	04/01/2004	04/06/2004	13	5	18
PAH	UG/KG	CEF-57-TW10-3	F22923-4	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
PAH	UG/KG	CEF-57-TW4-6	F22923-7	NM	03/19/2004	04/01/2004	04/05/2004	13	4	17
TPH	MG/KG	CEF-57-TW01-7	F22923-2	NM	03/19/2004	03/25/2004	03/29/2004	6	4	10
TPH	MG/KG	CEF-57-TW6-8	F22923-8	NM	03/19/2004	03/25/2004	03/27/2004	6	2	8
TPH	MG/KG	CEF-57-TW4-6	F22923-7	NM	03/19/2004	03/25/2004	03/27/2004	6	2	8
TPH	MG/KG	CEF-57-TW12-2	F22923-9	NM	03/19/2004	03/25/2004	03/27/2004	6	2	8
TPH	MG/KG	CEF-57-TW11-6	F22923-10	NM	03/19/2004	03/25/2004	03/28/2004	6	3	9
TPH	MG/KG	CEF-57-TW10-4	F22923-5	NM	03/19/2004	03/25/2004	03/27/2004	6	2	8
TPH	MG/KG	CEF-57-TW01-8	F22923-3	NM	03/19/2004	03/25/2004	03/29/2004	6	4	10
TPH	MG/KG	CEF-57-TW01-6	F22923-1	NM	03/19/2004	03/25/2004	03/29/2004	6	4	10
TPH	MG/KG	CEF-57-TW7-2	F22923-6	NM	03/19/2004	03/25/2004	03/27/2004	6	2	8
TPH	MG/KG	CEF-57-TW10-3	F22923-4	NM	03/19/2004	03/25/2004	03/27/2004	6	2	8

Accutest Laboratories Southeast, Inc.
Analytical Narrative

Client:	Tetra Tech, NUS	**Job No:**	F22923
Site:	NAS Cecil Field-CTO-161	**Report Date**	4/12/2004 11:23:52 PM

10 Samples were collected on 03/19/2004 and were received at Accutest on 03/20/2004 properly preserved, at 4.8 Deg. C and intact. These Samples received an Accutest job number of F22923.A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. Per Mark Jonnet the samples should be analyzed for BTEX by 8260, select PAHs by 8310, and FL-PRO despite what the chain of custody indicated.

Except as noted below, all method specified holding times, calibrations and quality control performance criteria were met.

Volatiles by GCMS By Method SW846 8260B

Matrix: SO **Batch ID:** VK737

All samples were run within holding times.

Sample(s) F22923-5MS, F22923-5MSD were used as the QC samples indicated.

All method blanks for this batch passed with no positive results

Matrix: SO **Batch ID:** VK738

All samples were run within holding times.

Sample(s) F22923-3MS, F22923-3MSD were used as the QC samples indicated.

All method blanks for this batch passed with no positive results

Extractables by GC By Method EPA 8310

Matrix: SO **Batch ID:** OP10113

All samples were run within holding times.

All samples were extracted within holding time for method

Sample(s) F23014-4MS, F23014-4MSD were used as the QC samples indicated.

All method blanks for this batch passed with no positive results

Sample(s) F22923-1, F22923-2 have surrogates outside control limits. Probable cause due to matrix interference.

F22923-1: All hits confirmed by spectral match using a diode array detector.

F22923-2: All hits confirmed by spectral match using a diode array detector.

F22923-1 for o-Terphenyl: Outside control limits due to matrix interference.

F22923-2 for o-Terphenyl: Outside control limits due to matrix interference.

Extractables by GC By Method FLORIDA-PRO

Matrix: SO **Batch ID:** OP10063

All samples were run within holding times.

All samples were extracted within holding time for method

Sample(s) F22964-1MS, F22964-1MSD were used as the QC samples indicated.

All method blanks for this batch passed with no positive results

Sample(s) F22923-1, F22923-2 have surrogates outside control limits. Probable cause due to matrix interference.

F22923-2 for o-Terphenyl: Outside control limits due to dilution.

F22923-1 for o-Terphenyl: Outside control limits due to dilution.

Wet Chemistry By Method EPA 160.3 M

Matrix: SO **Batch ID:** GN14113

Sample(s) F23007-1DUP were used as the QC samples for Solids, Percent.

Accutest Laboratories Southeast, Inc. certifies that this report meets the project requirements for analytical data produced for the samples as received at the Accutest Laboratories Southeast location as stated in the Analytical Task Order and the COC. In addition, Accutest Laboratories Southeast, Inc. certifies that data as reported meet the Data Quality Objectives for precision, accuracy and completeness as specified in the Accutest Laboratories Southeast, Inc. Quality Manual for other that conditions detailed above. It is recommended by Accutest Laboratories Southeast, Inc. that this report is to be used in its entirety. Accutest Laboratories Southeast, Inc. is not responsible for any assumptions of data quality if partial data packages are used to interpret data. The Accutest Laboratories Southeast, Inc. Laboratory Director as verified by the signature on the front page has authorized release of this report.

Narrative prepared by:

_____ Date: April 12, 2004

Sue O. Bell, Project Manager (signature on file)

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F22923

Client: TETRA TECH Project: N0039

Date Received: 3-20-07 Time Received: 9:00AM

# of Coolers Received: 1 Cooler Temperatures: 4.8

Delivery Method: FedEx UPS Accutest Courier Greyhound Delivery Other

Air Bill Number:

Cooler Custody Seals Intact ?	Yes	No	
Chain of Custody Provided ?	Yes	No	
COC Match Bottle Label ID's ?	Yes	No	
Sample Labels Present on all bottles ?	Yes	No	
All Analyses Marked On COC ?	Yes	No	
Are All Bottles Intact ?	Yes	No	
Samples Preserved Correctly ?	Yes	No	
Correct Number of Containers Used ?	Yes	No	
Sufficient Sample Volume ?	Yes	No	
Trip Blank Provided ?	Yes	No	
Trip Blank on COC ?	Yes	No	
Trip Blank Intact ?	Yes	No	N/A
Trip Blank Matrix ?	Soil	Water	N/A
Number of Encores ?	Ø		
Number of Soil Field Kits ?	10		

Summary of Comments:

Signature: Carlos R Date: 3/20/07

Review Signature:

ASBD 12/30/03

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER F22923 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
N0039	Day Tank #1	Mark Speranza	904-636-6125	Sue Bell / Accutest
SAMPLERS (SIGNATURE)		FIELD OPERATIONS LEADER	PHONE NUMBER	ADDRESS
RO		Chuck Metz	904-636-6125	4405 Vineland Rd, C-15
		CARRIER/WAYBILL NUMBER		CITY, STATE
				ORLANDO, FL

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

	DATE YEAR 2004	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	8260B	8310, 8270, FL-PRO							COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)										G	G							
PRESERVATIVE USED										—	H_2O, Alcohol							
(1)	3/19	0845	CEF-57-TW 01-6		5	6	SO	G	4	3	1							Cool to 4°C
(2)	3/19	0850	CEF-57-TW 01-7		6	7	SO	G	4	3	1							
(3)	3/19	0855	CEF-57-TW 01-8		7	8	SO	G	4	3	1							
(4)	3/19	0930	CEF-57-TW 10-3		2	3	SO	G	4	3	1							
(5)	3/19	0935	CEF-57-TW 10-4		3	4	SO	G	4	3	1							
(6)	3/19	0945	CEF-57-TW 7-2		1	2	SO	G	4	3	1							
(7)	3/19	1020	CEF-57-TW 4-6		5	6	SO	G	4	3	1							
(8)	3/19	1115	CEF-57-TW 6-8		7	8	SO	G	4	3	1							
(9)	3/19	1320	CEF 57-TW 12-2		1	2	SO	G	4	3	1							
(10)	3/19	1340	CEF-57-TW 11-6		5	6	SO	G	4	3	1							

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY RO	3-19-04	1600	1. RECEIVED BY FED X		
2. RELINQUISHED BY FED X			2. RECEIVED BY	3/20/04	9:00
3. RELINQUISHED BY			3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 4/02R

Instrument Performance Check (BFB)

Job Number: F22923
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO-161

Sample: VK733-BFB
Lab File ID: K016235.D
Instrument ID: GCMSK
Injection Date: 03/25/04
Injection Time: 15:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	5157	21.1		Pass
75	30.0 - 60.0% of mass 95	12447	50.9		Pass
95	Base peak, 100% relative abundance	24475	100.0		Pass
96	5.0 - 9.0% of mass 95	1887	7.7		Pass
173	Less than 2.0% of mass 174	0	0.0	(0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	17848	72.9		Pass
175	5.0 - 9.0% of mass 174	1424	5.8	(8.0) [a]	Pass
176	95.0 - 101.0% of mass 174	17139	70.0	(96.0) [a]	Pass
177	5.0 - 9.0% of mass 176	1373	5.6	(8.0) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VK733-IC733	K016236.D	03/25/04	15:34	00:18	Initial cal 5
VK733-IC733	K016237.D	03/25/04	16:09	00:53	Initial cal 10
VK733-IC733	K016238.D	03/25/04	16:44	01:28	Initial cal 20
VK733-ICC733	K016239.D	03/25/04	17:19	02:03	Initial cal 40
VK733-IC733	K016240.D	03/25/04	17:54	02:38	Initial cal 100
VK733-IC733	K016241.D	03/25/04	18:29	03:13	Initial cal 200
VK733-BS	K016244.D	03/25/04	20:14	04:58	Blank Spike
VK734-BS	K016244.D	03/25/04	20:14	04:58	Blank Spike
VK733-MB	K016245.D	03/25/04	20:49	05:33	Method Blank
VK734-MB	K016245.D	03/25/04	20:49	05:33	Method Blank
ZZZZZZ	K016246.D	03/25/04	21:24	06:08	(unrelated sample)
ZZZZZZ	K016247.D	03/25/04	21:58	06:42	(unrelated sample)
ZZZZZZ	K016248.D	03/25/04	22:33	07:17	(unrelated sample)
ZZZZZZ	K016249.D	03/25/04	23:08	07:52	(unrelated sample)
F22850-5	K016250.D	03/25/04	23:42	08:26	(used for QC only; not part of job F22923)
F22850-5MS	K016251.D	03/26/04	00:18	09:02	Matrix Spike
F22850-5MSD	K016252.D	03/26/04	00:53	09:37	Matrix Spike Duplicate
ZZZZZZ	K016253.D	03/26/04	01:28	10:12	(unrelated sample)
ZZZZZZ	K016255.D	03/26/04	02:38	11:22	(unrelated sample)
ZZZZZZ	K016256.D	03/26/04	03:13	11:57	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F22923
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO-161

Sample: VK737-BFB
Lab File ID: K016305.D
Instrument ID: GCMSK
Injection Date: 03/30/04
Injection Time: 10:24

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	4760	22.2		Pass
75	30.0 - 60.0% of mass 95	11157	52.0		Pass
95	Base peak, 100% relative abundance	21461	100.0		Pass
96	5.0 - 9.0% of mass 95	1638	7.6		Pass
173	Less than 2.0% of mass 174	0	0.0	(0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	15796	73.6		Pass
175	5.0 - 9.0% of mass 174	1229	5.7	(7.8) [a]	Pass
176	95.0 - 101.0% of mass 174	15728	73.3	(99.6) [a]	Pass
177	5.0 - 9.0% of mass 176	1127	5.3	(7.2) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VK737-CC733	K016306.D	03/30/04	10:43	00:19	Continuing cal 40
VK737-BS	K016307.D	03/30/04	11:21	00:57	Blank Spike
VK737-MB	K016308.D	03/30/04	11:56	01:32	Method Blank
F22923-4	K016312.D	03/30/04	14:49	04:25	CEF-57-TW10-3
F22923-5	K016313.D	03/30/04	15:23	04:59	CEF-57-TW10-4
F22923-6	K016314.D	03/30/04	15:58	05:34	CEF-57-TW7-2
F22923-5MS	K016315.D	03/30/04	16:33	06:09	Matrix Spike
F22923-5MSD	K016316.D	03/30/04	17:08	06:44	Matrix Spike Duplicate
F22923-7	K016317.D	03/30/04	17:43	07:19	CEF-57-TW4-6
F22923-8	K016318.D	03/30/04	18:18	07:54	CEF-57-TW6-8
F22923-9	K016319.D	03/30/04	18:54	08:30	CEF-57-TW12-2
F22923-2	K016321.D	03/30/04	20:04	09:40	CEF-57-TW01-7
ZZZZZZ	K016323.D	03/30/04	21:14	10:50	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: F22923
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO-161

Check Std:	VK737-CC733	**Injection Date:**	03/30/04
Lab File ID:	K016306.D	**Injection Time:**	10:43
Instrument ID:	GCMSK	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	845502	12.90	643664	17.63	331837	21.50	135099	9.14
Upper Limit [a]	1691004	13.40	1287328	18.13	663674	22.00	270198	9.64
Lower Limit [b]	422751	12.40	321832	17.13	165919	21.00	67550	8.64

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VK737-BS	789714	12.91	606412	17.63	313252	21.51	136070	9.15
VK737-MB	784599	12.92	601490	17.64	285980	21.51	122695	9.16
F22923-4	749003	12.92	562454	17.64	249379	21.52	112415	9.17
F22923-5	758726	12.92	576663	17.64	267580	21.52	95836	9.17
F22923-6	730688	12.93	517619	17.65	197258	21.53	103389	9.17
F22923-5MS	790181	12.92	590595	17.65	296934	21.52	67368*	9.16
F22923-5MSD	776672	12.91	573783	17.65	287205	21.53	82146	9.16
F22923-7	739409	12.92	554437	17.65	262626	21.52	124644	9.17
F22923-8	754310	12.92	567594	17.65	273956	21.52	124100	9.17
F22923-9	737926	12.92	537146	17.64	224791	21.52	90988	9.17
F22923-2	811531	12.91	614340	17.64	344580	21.51	142745	9.19
ZZZZZZ	820587	12.91	656703	17.64	342493	21.52	145313	9.19

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Instrument Performance Check (BFB)

Job Number: F22923
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO-161

Sample: VK738-BFB
Lab File ID: K016338.D
Instrument ID: GCMSK
Injection Date: 03/31/04
Injection Time: 10:17

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	5155	20.3	Pass
75	30.0 - 60.0% of mass 95	12294	48.5	Pass
95	Base peak, 100% relative abundance	25344	100.0	Pass
96	5.0 - 9.0% of mass 95	1802	7.1	Pass
173	Less than 2.0% of mass 174	0	0.0 (0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	17797	70.2	Pass
175	5.0 - 9.0% of mass 174	1313	5.2 (7.4) [a]	Pass
176	95.0 - 101.0% of mass 174	17435	68.8 (98.0) [a]	Pass
177	5.0 - 9.0% of mass 176	1152	4.5 (6.6) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VK738-CC733	K016339.D	03/31/04	10:35	00:18	Continuing cal 40
VK738-BS	K016340.D	03/31/04	11:27	01:10	Blank Spike
VK738-MB	K016341.D	03/31/04	12:02	01:45	Method Blank
F22923-3	K016342.D	03/31/04	12:39	02:22	CEF-57-TW01-8
ZZZZZZ	K016343.D	03/31/04	13:14	02:57	(unrelated sample)
ZZZZZZ	K016344.D	03/31/04	13:49	03:32	(unrelated sample)
ZZZZZZ	K016345.D	03/31/04	14:25	04:08	(unrelated sample)
ZZZZZZ	K016346.D	03/31/04	15:00	04:43	(unrelated sample)
ZZZZZZ	K016347.D	03/31/04	15:35	05:18	(unrelated sample)
F22923-3MS	K016348.D	03/31/04	16:10	05:53	Matrix Spike
F22923-3MSD	K016349.D	03/31/04	16:45	06:28	Matrix Spike Duplicate
ZZZZZZ	K016350.D	03/31/04	17:19	07:02	(unrelated sample)
ZZZZZZ	K016351.D	03/31/04	17:54	07:37	(unrelated sample)
F22923-10	K016352.D	03/31/04	18:30	08:13	CEF-57-TW11-6
ZZZZZZ	K016353.D	03/31/04	19:05	08:48	(unrelated sample)
ZZZZZZ	K016354.D	03/31/04	19:40	09:23	(unrelated sample)
ZZZZZZ	K016355.D	03/31/04	20:15	09:58	(unrelated sample)
ZZZZZZ	K016356.D	03/31/04	20:50	10:33	(unrelated sample)
ZZZZZZ	K016357.D	03/31/04	21:25	11:08	(unrelated sample)
F22923-1	K016358.D	03/31/04	22:01	11:44	CEF-57-TW01-6

Volatile Internal Standard Area Summary

Job Number: F22923
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO-161

Check Std:	VK738-CC733	**Injection Date:**	03/31/04
Lab File ID:	K016339.D	**Injection Time:**	10:35
Instrument ID:	GCMSK	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	861293	12.92	647871	17.64	326612	21.52	148385	9.16
Upper Limit [a]	1722586	13.42	1295742	18.14	653224	22.02	296770	9.66
Lower Limit [b]	430647	12.42	323936	17.14	163306	21.02	74193	8.66

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VK738-BS	822124	12.92	627785	17.65	318252	21.53	149577	9.15
VK738-MB	860663	12.93	647961	17.65	302738	21.53	116924	9.18
F22923-3	665005	12.93	495663	17.65	243817	21.53	72729*	9.16
ZZZZZZ	805805	12.93	586767	17.66	218611	21.54	103382	9.17
ZZZZZZ	801207	12.92	616107	17.66	309016	21.54	103219	9.18
ZZZZZZ	854684	12.93	641705	17.66	289531	21.53	147675	9.17
ZZZZZZ	818982	12.93	637311	17.67	296387	21.54	95032	9.17
ZZZZZZ	812118	12.93	573403	17.66	196842	21.54	155097	9.18
F22923-3MS	822543	12.93	619255	17.67	307952	21.54	91205	9.16
F22923-3MSD	813265	12.93	572845	17.66	291471	21.53	95303	9.17
ZZZZZZ	830960	12.93	607672	17.66	319736	21.54	151981	9.20
ZZZZZZ	902107	12.93	630000	17.66	319608	21.54	168089	9.18
F22923-10	823099	12.93	603103	17.66	257884	21.54	123917	9.18
ZZZZZZ	791312	12.93	626251	17.66	319625	21.53	153503	9.17
ZZZZZZ	780786	12.93	606178	17.66	304187	21.53	145867	9.17
ZZZZZZ	772162	12.93	619531	17.66	320996	21.54	134128	9.17
ZZZZZZ	785311	12.93	610689	17.66	315341	21.54	160091	9.17
ZZZZZZ	775185	12.93	607650	17.66	303129	21.53	125432	9.17
F22923-1	808494	12.92	608826	17.66	353308	21.53	143869	9.20

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: F22923
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO-161

Method: FLORIDA-PRO **Matrix:** SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F22923-1	OP36679.D	0.0* [b]
F22923-2	OP36680.D	0.0* [b]
F22923-3	OP36681.D	86.0
F22923-4	OP36658.D	83.0
F22923-5	OP36659.D	80.0
F22923-6	OP36660.D	79.0
F22923-7	OP36661.D	83.0
F22923-8	OP36662.D	72.0
F22923-9	OP36664.D	77.0
F22923-10	OP36665.D	86.0
OP10063-BS	OP36653.D	88.0
OP10063-MB	OP36654.D	89.0
OP10063-MB	OP36678.D	87.0
OP10063-MS	OP36668.D	80.0
OP10063-MSD	OP36669.D	86.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	59-121%

(a) Recovery from GC signal #1
(b) Outside control limits due to dilution.

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **M. SPERANZA** **DATE: JUNE 17, 2004**

FROM: **D. SCHLOER** **CC: DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – VOC / SVOC / PAH / TPH**
CTO 078, NAS CECIL FIELD
SDG: F24092

SAMPLES: 3 / Solid / VOC / PAH / TPH

CEF-57-TW17-05 CEF-57-TW18-04 CEF-57-TW-19-04

1 / Solid / SVOC

CEF-1848-SS01-01

Overview

The sample set for CTO 078; NAS Cecil Field; SDG F24092 consists of four (4) solid environmental samples. As detailed above, the samples were analyzed for selected Volatile Organic Compounds (VOCs), Target Compound List (TCL) Semivolatile Organic Compounds (SVOCs), Polynuclear Aromatic Hydrocarbons (PAHs) and Total Petroleum Hydrocarbons (TPH). No field duplicate pairs were included in this SDG.

The samples were collected by Tetra Tech NUS on May 10th, 2004 and analyzed by Accutest Laboratories. All analyses were conducted in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria using U.S. EPA Test Methods for Evaluating Solid Waste (SW-846) Methods 8260B, 8270C and 8310, and Florida-Petroleum Residual Organic (FL-PRO) analytical and reporting protocol.

The data contained in this SDG were validated with regard to the following parameters:

* • Data completeness
* • Holding times
* • Initial and continuing calibration
* • Blank results
* • Detection Limits

The symbol (*) indicates that all 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 samples were analyzed for the selected VOCs: benzene, toluene, ethylbenzene and xylenes. No data quality issues were noted.

SVOC

No data quality issues were noted.

PAH

No data quality issues were noted.

TPH

No data quality issues were noted.

Additional Comments

Nondetected organic compounds were reported at the chemical-specific method detection limit (MDLs) values; positive results greater than the MDL but less than the method Reporting Limit (RL) were qualified as estimated (J) due to uncertainty near the detection limit.

It should be noted that the sample matrix code on the Chain of Custody (COC) documentation was incomplete.

The percent solids content in the electronic database did not concur with those provided on the sample Form Is. The reviewer corrected the electronic database to match the % solid values shown on the sample Form Is. This is noted as a data completeness issue.

EXECUTIVE SUMMARY

Laboratory Performance Issues: The percent solids content in the electronic database did not concur with those provided on the sample Form Is.

Other Factors Affecting Data Quality: The laboratory noted noncompliances for the Matrix Spike/Matrix Spike Duplicate sample associated with the environmental samples analyzed and reported in this SDG; however, no data validation action was taken on this basis as only a limited data review is was performed.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (10/99) and the NFESC guidelines entitled "Navy IRCDQM" (September, 1999). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC guidelines and the Quality Assurance Project Plan (QAPP)."

Tetra Tech NUS

For Douglas Schloer
Chemist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation 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

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 = 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 (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 = % 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 less than sample activity

PROJ_NO: 0039

SDG: F24092 MEDIA: SOIL DATA FRACTION: OV

nsample	CEF-57-TW17-05	nsample	CEF-57-TW18-04	nsample	CEF-57-TW19-04
samp_date	5/10/2004	samp_date	5/10/2004	samp_date	5/10/2004
lab_id	F24092-3	lab_id	F24092-2	lab_id	F24092-1
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	82.6	Pct_Solids	86.5	Pct_Solids	82.5
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZENE	1.8	U	
ETHYLBENZENE	1.8	U	
TOLUENE	1.8	U	
TOTAL XYLENES	4.1	U	

Parameter	Result	Val Qual	Qual Code
BENZENE	1.9	U	
ETHYLBENZENE	1.9	U	
TOLUENE	1.9	U	
TOTAL XYLENES	4.3	U	

Parameter	Result	Val Qual	Qual Code
BENZENE	1.9	U	
ETHYLBENZENE	1.9	U	
TOLUENE	1.9	U	
TOTAL XYLENES	4.2	U	

PROJ_NO: 0039

SDG: F24092 MEDIA: SOIL DATA FRACTION: OS

nsample	CEF-1848-SS01-01
samp_date	5/10/2004
lab_id	F24092-4
qc_type	NM
units	UG/KG
Pct_Solids	91.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,2,4-TRICHLOROBENZENE	36	U	
1,2-DICHLOROBENZENE	36	U	
1,3-DICHLOROBENZENE	36	U	
1,4-DICHLOROBENZENE	36	U	
2,2'-OXYBIS(1-CHLOROPROPANE)	36	U	
2,4,5-TRICHLOROPHENOL	36	U	
2,4,6-TRICHLOROPHENOL	36	U	
2,4-DICHLOROPHENOL	36	U	
2,4-DIMETHYLPHENOL	36	U	
2,4-DINITROPHENOL	360	U	
2,4-DINITROTOLUENE	72	U	
2,6-DINITROTOLUENE	72	U	
2-CHLORONAPHTHALENE	36	U	
2-CHLOROPHENOL	36	U	
2-METHYLNAPHTHALENE	36	U	
2-METHYLPHENOL	36	U	
2-NITROANILINE	90	U	
2-NITROPHENOL	36	U	
3&4-METHYLPHENOL	36	U	
3,3'-DICHLOROBENZIDINE	180	U	
3-NITROANILINE	90	U	
4,6-DINITRO-2-METHYLPHENOL	72	U	
4-BROMOPHENYL PHENYL ETHER	36	U	
4-CHLORO-3-METHYLPHENOL	36	U	
4-CHLOROANILINE	270	U	
4-CHLOROPHENYL PHENYL ETHER	36	U	
4-NITROANILINE	90	U	
4-NITROPHENOL	360	U	
ACENAPHTHENE	36	U	
ACENAPHTHYLENE	36	U	
ANTHRACENE	36	U	
BENZO(A)ANTHRACENE	36	U	

nsample	CEF-1848-SS01-01
samp_date	5/10/2004
lab_id	F24092-4
qc_type	NM
units	UG/KG
Pct_Solids	91.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
BENZO(A)PYRENE	36	U	
BENZO(B)FLUORANTHENE	36	U	
BENZO(G,H,I)PERYLENE	72	U	
BENZO(K)FLUORANTHENE	36	U	
BENZOIC ACID	540	U	
BENZYL ALCOHOL	36	U	
BIS(2-CHLOROETHOXY)METHANE	36	U	
BIS(2-CHLOROETHYL)ETHER	72	U	
BIS(2-ETHYLHEXYL)PHTHALATE	180	U	
BUTYL BENZYL PHTHALATE	90	U	
CARBAZOLE	36	U	
CHRYSENE	36	U	
DIBENZO(A,H)ANTHRACENE	72	U	
DIBENZOFURAN	36	U	
DIETHYL PHTHALATE	90	U	
DIMETHYL PHTHALATE	90	U	
DI-N-BUTYL PHTHALATE	90	U	
DI-N-OCTYL PHTHALATE	180	U	
FLUORANTHENE	36	U	
FLUORENE	36	U	
HEXACHLOROBENZENE	36	U	
HEXACHLOROBUTADIENE	72	U	
HEXACHLOROCYCLOPENTADIENE	72	U	
HEXACHLOROETHANE	72	U	
INDENO(1,2,3-CD)PYRENE	72	U	
ISOPHORONE	36	U	
NAPHTHALENE	36	U	
NITROBENZENE	36	U	
N-NITROSO-DI-N-PROPYLAMINE	72	U	
N-NITROSODIPHENYLAMINE	36	U	
PENTACHLOROPHENOL	360	U	
PHENANTHRENE	36	U	

nsample	CEF-1848-SS01-01
samp_date	5/10/2004
lab_id	F24092-4
qc_type	NM
units	UG/KG
Pct_Solids	91.0
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
PHENOL	36	U	
PYRENE	72	U	

PROJ_NO: 0039

SDG: F24092 MEDIA: SOIL DATA FRACTION: PAH

nsample	CEF-57-TW17-05	nsample	CEF-57-TW18-04	nsample	CEF-57-TW19-04
samp_date	5/10/2004	samp_date	5/10/2004	samp_date	5/10/2004
lab_id	F24092-3	lab_id	F24092-2	lab_id	F24092-1
qc_type	NM	qc_type	NM	qc_type	NM
units	UG/KG	units	UG/KG	units	UG/KG
Pct_Solids	82.6	Pct_Solids	86.5	Pct_Solids	82.5
DUP_OF:		DUP_OF:		DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	183	J	P
2-METHYLNAPHTHALENE	182	J	P
ACENAPHTHENE	200	U	
ACENAPHTHYLENE	200	U	
ANTHRACENE	200	U	
BENZO(A)ANTHRACENE	99	U	
BENZO(A)PYRENE	20	U	
BENZO(B)FLUORANTHENE	20	U	
BENZO(G,H,I)PERYLENE	20	U	
BENZO(K)FLUORANTHENE	20	U	
CHRYSENE	99	U	
DIBENZO(A,H)ANTHRACENE	20	U	
FLUORANTHENE	99	U	
FLUORENE	200	U	
INDENO(1,2,3-CD)PYRENE	20	U	
NAPHTHALENE	99	U	
PHENANTHRENE	200	U	
PYRENE	99	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	94	U	
2-METHYLNAPHTHALENE	94	U	
ACENAPHTHENE	190	U	
ACENAPHTHYLENE	190	U	
ANTHRACENE	190	U	
BENZO(A)ANTHRACENE	94	U	
BENZO(A)PYRENE	19	U	
BENZO(B)FLUORANTHENE	19	U	
BENZO(G,H,I)PERYLENE	19	U	
BENZO(K)FLUORANTHENE	19	U	
CHRYSENE	94	U	
DIBENZO(A,H)ANTHRACENE	19	U	
FLUORANTHENE	94	U	
FLUORENE	190	U	
INDENO(1,2,3-CD)PYRENE	19	U	
NAPHTHALENE	94	U	
PHENANTHRENE	190	U	
PYRENE	94	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	99	U	
2-METHYLNAPHTHALENE	99	U	
ACENAPHTHENE	200	U	
ACENAPHTHYLENE	200	U	
ANTHRACENE	200	U	
BENZO(A)ANTHRACENE	99	U	
BENZO(A)PYRENE	20	U	
BENZO(B)FLUORANTHENE	20	U	
BENZO(G,H,I)PERYLENE	20	U	
BENZO(K)FLUORANTHENE	20	U	
CHRYSENE	99	U	
DIBENZO(A,H)ANTHRACENE	20	U	
FLUORANTHENE	99	U	
FLUORENE	200	U	
INDENO(1,2,3-CD)PYRENE	20	U	
NAPHTHALENE	99	U	
PHENANTHRENE	200	U	
PYRENE	99	U	

PROJ_NO: 0039

SDG: F24092 MEDIA: SOIL DATA FRACTION: PET

nsample	CEF-57-TW17-05
samp_date	5/10/2004
lab_id	F24092-3
qc_type	NM
units	MG/KG
Pct_Solids	82.5
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	6.7	U	

nsample	CEF-57-TW18-04
samp_date	5/10/2004
lab_id	F24092-2
qc_type	NM
units	MG/KG
Pct_Solids	86.5
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	40.9		

nsample	CEF-57-TW19-04
samp_date	5/10/2004
lab_id	F24092-1
qc_type	NM
units	MG/KG
Pct_Solids	82.6
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	6.7	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW17-05		
Lab Sample ID:	F24092-3	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	SW846 8260B	**Percent Solids:**	82.6
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H025358.D	1	05/14/04	NAF	n/a	n/a	VH946
Run #2							

	Initial Weight
Run #1	6.61 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.6	1.8	ug/kg	
108-88-3	Toluene	ND	4.6	1.8	ug/kg	
100-41-4	Ethylbenzene	ND	4.6	1.8	ug/kg	
1330-20-7	Xylene (total)	ND	14	4.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		78-123%
2037-26-5	Toluene-D8	97%		71-137%
460-00-4	4-Bromofluorobenzene	109%		61-157%
17060-07-0	1,2-Dichloroethane-D4	99%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW18-04		
Lab Sample ID:	F24092-2	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	SW846 8260B	**Percent Solids:**	86.5
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H025354.D	1	05/14/04	NAF	n/a	n/a	VH946
Run #2							

	Initial Weight
Run #1	6.02 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.8	1.9	ug/kg	
108-88-3	Toluene	ND	4.8	1.9	ug/kg	
100-41-4	Ethylbenzene	ND	4.8	1.9	ug/kg	
1330-20-7	Xylene (total)	ND	14	4.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		78-123%
2037-26-5	Toluene-D8	101%		71-137%
460-00-4	4-Bromofluorobenzene	101%		61-157%
17060-07-0	1,2-Dichloroethane-D4	112%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW19-04		
Lab Sample ID:	F24092-1	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	SW846 8260B	**Percent Solids:**	82.5
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H025328.D	1	05/13/04	NAF	n/a	n/a	VH945
Run #2							

	Initial Weight
Run #1	6.47 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	4.7	1.9	ug/kg	
108-88-3	Toluene	ND	4.7	1.9	ug/kg	
100-41-4	Ethylbenzene	ND	4.7	1.9	ug/kg	
1330-20-7	Xylene (total)	ND	14	4.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		78-123%
2037-26-5	Toluene-D8	99%		71-137%
460-00-4	4-Bromofluorobenzene	109%		61-157%
17060-07-0	1,2-Dichloroethane-D4	93%		74-125%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-1848-SS01-01		
Lab Sample ID:	F24092-4	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	91.0
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W019995.D	1	05/17/04	ME	05/14/04	OP10439	SW1052
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	900	540	ug/kg	
95-57-8	2-Chlorophenol	ND	180	36	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	180	36	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	180	36	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	180	36	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	900	360	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	360	72	ug/kg	
95-48-7	2-Methylphenol	ND	180	36	ug/kg	
	3&4-Methylphenol	ND	180	36	ug/kg	
88-75-5	2-Nitrophenol	ND	180	36	ug/kg	
100-02-7	4-Nitrophenol	ND	900	360	ug/kg	
87-86-5	Pentachlorophenol	ND	900	360	ug/kg	
108-95-2	Phenol	ND	180	36	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	180	36	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	180	36	ug/kg	
83-32-9	Acenaphthene	ND	180	36	ug/kg	
208-96-8	Acenaphthylene	ND	180	36	ug/kg	
120-12-7	Anthracene	ND	180	36	ug/kg	
56-55-3	Benzo(a)anthracene	ND	180	36	ug/kg	
50-32-8	Benzo(a)pyrene	ND	180	36	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	180	36	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	180	72	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	180	36	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	180	36	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	360	90	ug/kg	
100-51-6	Benzyl Alcohol	ND	180	36	ug/kg	
91-58-7	2-Chloronaphthalene	ND	180	36	ug/kg	
106-47-8	4-Chloroaniline	ND	720	270	ug/kg	
86-74-8	Carbazole	ND	180	36	ug/kg	
218-01-9	Chrysene	ND	180	36	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	180	36	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	180	72	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-1848-SS01-01		
Lab Sample ID:	F24092-4	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	91.0
Project:	NAS Cecil Field-CTO 78		

ABN TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-60-1	bis(2-Chloroisopropyl)ether	ND	180	36	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	180	36	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	180	36	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	180	36	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	180	36	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	180	72	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	180	72	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	360	180	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	180	72	ug/kg	
132-64-9	Dibenzofuran	ND	180	36	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	360	90	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	360	180	ug/kg	
84-66-2	Diethyl phthalate	ND	360	90	ug/kg	
131-11-3	Dimethyl phthalate	ND	360	90	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	360	180	ug/kg	
206-44-0	Fluoranthene	ND	180	36	ug/kg	
86-73-7	Fluorene	ND	180	36	ug/kg	
118-74-1	Hexachlorobenzene	ND	180	36	ug/kg	
87-68-3	Hexachlorobutadiene	ND	180	72	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	180	72	ug/kg	
67-72-1	Hexachloroethane	ND	180	72	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	180	72	ug/kg	
78-59-1	Isophorone	ND	180	36	ug/kg	
91-57-6	2-Methylnaphthalene	ND	180	36	ug/kg	
88-74-4	2-Nitroaniline	ND	360	90	ug/kg	
99-09-2	3-Nitroaniline	ND	360	90	ug/kg	
100-01-6	4-Nitroaniline	ND	360	90	ug/kg	
91-20-3	Naphthalene	ND	180	36	ug/kg	
98-95-3	Nitrobenzene	ND	180	36	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	180	72	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	180	36	ug/kg	
85-01-8	Phenanthrene	ND	180	36	ug/kg	
129-00-0	Pyrene	ND	180	72	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	180	36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	72%		45-114%
4165-62-2	Phenol-d5	73%		44-124%
118-79-6	2,4,6-Tribromophenol	76%		50-128%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-1848-SS01-01		
Lab Sample ID:	F24092-4	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	SW846 8270C SW846 3550B	**Percent Solids:**	91.0
Project:	NAS Cecil Field-CTO 78		

ABN TCL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		41-123%
321-60-8	2-Fluorobiphenyl	72%		46-122%
1718-51-0	Terphenyl-d14	81%		45-135%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW17-05		
Lab Sample ID:	F24092-3	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	EPA 8310 SW846 3550B	**Percent Solids:**	82.6
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA021686.D	1	05/15/04	MRE	05/13/04	OP10421	GAA1025
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	790	200	ug/kg	
208-96-8	Acenaphthylene	ND	790	200	ug/kg	
120-12-7	Anthracene	ND	390	200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	390	99	ug/kg	
50-32-8	Benzo(a)pyrene	ND	79	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	79	20	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	79	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	79	20	ug/kg	
218-01-9	Chrysene	ND	390	99	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	79	20	ug/kg	
206-44-0	Fluoranthene	ND	390	99	ug/kg	
86-73-7	Fluorene	ND	390	200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	79	20	ug/kg	
91-20-3	Naphthalene	ND	390	99	ug/kg	
90-12-0	1-Methylnaphthalene	183	390	99	ug/kg	J
91-57-6	2-Methylnaphthalene	182	390	99	ug/kg	J
85-01-8	Phenanthrene	ND	390	200	ug/kg	
129-00-0	Pyrene	ND	390	99	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	100%		49-124%
92-94-4	p-Terphenyl	104%		56-141%

(a) All hits confirmed by spectral match using a diode array detector.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW18-04		
Lab Sample ID:	F24092-2	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	EPA 8310 SW846 3550B	**Percent Solids:**	86.5
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA021685.D	1	05/15/04	MRE	05/13/04	OP10421	GAA1025
Run #2							

	Initial Weight	Final Volume
Run #1	30.9 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	750	190	ug/kg	
208-96-8	Acenaphthylene	ND	750	190	ug/kg	
120-12-7	Anthracene	ND	370	190	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	94	ug/kg	
50-32-8	Benzo(a)pyrene	ND	75	19	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	75	19	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	75	19	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	75	19	ug/kg	
218-01-9	Chrysene	ND	370	94	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	75	19	ug/kg	
206-44-0	Fluoranthene	ND	370	94	ug/kg	
86-73-7	Fluorene	ND	370	190	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	75	19	ug/kg	
91-20-3	Naphthalene	ND	370	94	ug/kg	
90-12-0	1-Methylnaphthalene	ND	370	94	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	94	ug/kg	
85-01-8	Phenanthrene	ND	370	190	ug/kg	
129-00-0	Pyrene	ND	370	94	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		49-124%
92-94-4	p-Terphenyl	99%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW19-04		
Lab Sample ID:	F24092-1	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	EPA 8310 SW846 3550B	**Percent Solids:**	82.5
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA021684.D	1	05/15/04	MRE	05/13/04	OP10421	GAA1025
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	790	200	ug/kg	
208-96-8	Acenaphthylene	ND	790	200	ug/kg	
120-12-7	Anthracene	ND	390	200	ug/kg	
56-55-3	Benzo(a)anthracene	ND	390	99	ug/kg	
50-32-8	Benzo(a)pyrene	ND	79	20	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	79	20	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	79	20	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	79	20	ug/kg	
218-01-9	Chrysene	ND	390	99	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	79	20	ug/kg	
206-44-0	Fluoranthene	ND	390	99	ug/kg	
86-73-7	Fluorene	ND	390	200	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	79	20	ug/kg	
91-20-3	Naphthalene	ND	390	99	ug/kg	
90-12-0	1-Methylnaphthalene	ND	390	99	ug/kg	
91-57-6	2-Methylnaphthalene	ND	390	99	ug/kg	
85-01-8	Phenanthrene	ND	390	200	ug/kg	
129-00-0	Pyrene	ND	390	99	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		49-124%
92-94-4	p-Terphenyl	96%		56-141%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW17-05		
Lab Sample ID:	F24092-3	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	82.6
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP38262.D	1	05/15/04	SM	05/13/04	OP10425	GOP1219
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	9.9	6.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW18-04		
Lab Sample ID:	F24092-2	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	86.5
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP38261.D	1	05/15/04	SM	05/13/04	OP10425	GOP1219
Run #2							

	Initial Weight	Final Volume
Run #1	30.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	40.9	9.4	6.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-57-TW19-04		
Lab Sample ID:	F24092-1	**Date Sampled:**	05/10/04
Matrix:	SO - Soil	**Date Received:**	05/12/04
Method:	FLORIDA-PRO SW846 3550B	**Percent Solids:**	82.5
Project:	NAS Cecil Field-CTO 78		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP38259.D	1	05/15/04	SM	05/13/04	OP10425	GOP1219
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	9.8	6.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		59-121%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG F24092

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PCS	%	CEF-57-TW19-04	F24092-1	NM	05/10/2004	05/13/2004	05/13/2004	3	0	3
PCS	%	CEF-57-TW18-04	F24092-2	NM	05/10/2004	05/13/2004	05/13/2004	3	0	3
PCS	%	CEF-57-TW17-05	F24092-3	NM	05/10/2004	05/13/2004	05/13/2004	3	0	3
PCS	%	CEF-1848-SS01-01	F24092-4	NM	05/10/2004	05/13/2004	05/13/2004	3	0	3
OS	%	CEF-1848-SS01-01	F24092-4	NM	05/10/2004	05/14/2004	05/17/2004	4	3	7
OS	UG/KG	CEF-1848-SS01-01	F24092-4	NM	05/10/2004	05/14/2004	05/17/2004	4	3	7
OV	%	CEF-57-TW17-05	F24092-3	NM	05/10/2004	05/14/2004	05/14/2004	4	0	4
OV	%	CEF-57-TW18-04	F24092-2	NM	05/10/2004	05/14/2004	05/14/2004	4	0	4
OV	%	CEF-57-TW19-04	F24092-1	NM	05/10/2004	05/13/2004	05/13/2004	3	0	3
OV	UG/KG	CEF-57-TW17-05	F24092-3	NM	05/10/2004	05/14/2004	05/14/2004	4	0	4
OV	UG/KG	CEF-57-TW18-04	F24092-2	NM	05/10/2004	05/14/2004	05/14/2004	4	0	4
OV	UG/KG	CEF-57-TW19-04	F24092-1	NM	05/10/2004	05/13/2004	05/13/2004	3	0	3
PAH	%	CEF-57-TW19-04	F24092-1	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5
PAH	%	CEF-57-TW17-05	F24092-3	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5
PAH	%	CEF-57-TW18-04	F24092-2	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PAH	UG/KG	CEF-57-TW18-04	F24092-2	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5
PAH	UG/KG	CEF-57-TW19-04	F24092-1	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5
PAH	UG/KG	CEF-57-TW17-05	F24092-3	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5
TPH	MG/KG	CEF-57-TW19-04	F24092-1	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5
TPH	MG/KG	CEF-57-TW17-05	F24092-3	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5
TPH	MG/KG	CEF-57-TW18-04	F24092-2	NM	05/10/2004	05/13/2004	05/15/2004	3	2	5

TETRA TECH NUS, INC. CHAIN OF CUSTODY NUMBER F24092 DT1-051004 PAGE 1 OF 1

PROJECT NO:	FACILITY:	PROJECT MANAGER	PHONE NUMBER	LABORATORY NAME AND CONTACT:
N0039, CT078	Bldg. 1848 and DAY TANK 1	MARK SPERANZA	412 921 8916	ACCUTEST Sue Bolt
SAMPLERS (SIGNATURE)		**FIELD OPERATIONS LEADER**	**PHONE NUMBER**	**ADDRESS**
Scott R. McGuire NASCF		MERV DAVE	904 636 6125	4405 Vineland Rd.
		CARRIER/WAYBILL NUMBER		**CITY, STATE**
		Courier		ORLANDO, FL 32811

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

	DATE YEAR 2004	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	VOCs 8260B	VOCs 8260B	PAHs 8310	TRPH FL-PRO	SVOCs 8270				COMMENTS
			CONTAINER TYPE PLASTIC (P) or GLASS (G)							G	G	G	G	G				
			PRESERVATIVE USED							H_2O	CH_3OH	None	None	None				
1	5-10	1120	CEF-57-TW19-04							X	X	X	X					Cool to 4°C
2	5-10	1220	CEF-57-TW18-04							X	X	X	X					
3	5-10	1305	CEF-57-TW17-05							X	X	X	X					N0039-WR 438
			SRM															
4	5-10	1325	CEF-1848-SS01-01											X				

6-17-04

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY Kevin W. Dale	5/12/04	1322	1. RECEIVED BY Michael Weiss	5-12-04	1332
2. RELINQUISHED BY Michael Weiss	5-12-04	1650	2. RECEIVED BY Jeff Mistraff	5/12/04	16:50
3. RELINQUISHED BY	DATE	TIME	3. RECEIVED BY	DATE	TIME

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY) 4/02R

Southeast
ACCUTEST
Laboratories

06/02/04

Technical Report for

Tetra Tech, NUS

NAS Cecil Field-CTO 78

N0039-WR438, Day Tank 1

Accutest Job Number: F24092

Sampling Date: 05/10/04

Report to:

Tetra-Tech,Inc.
661 Andersen Drive
Foster Plaza 7
Pittsburgh, PA 15520-2745

ATTN: Amy Thomson

Total number of pages in report: 432

ACCREDITED IN ACCORDANCE WITH nelac

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

Harry Behzadi, Ph.D.
Laboratory Director

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

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech, NUS **Job No:** F24092

Site: NAS Cecil Field-CTO 78 **Report Date** 6/1/04 4:12:41 PM

4 Samples were collected on 05/10/2004 and were received at Accutest on 05/12/2004 properly preserved, at 2.8 Deg. C and intact. These Samples received an Accutest job number of F24092. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS By Method SW846 8260B

Matrix: SO **Batch ID:** VH945

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F23973-1MS, F23973-1MSD were used as the QC samples indicated.

Matrix: SO **Batch ID:** VH946

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F24067-1MS, F24067-1MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270C

Matrix: SO **Batch ID:** OP10439

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F23950-9MS, F23950-9MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recoverys for 3,3'-Dichlorobenzidine, 4-Chloroaniline, Benzoic acid, bis(2-Ethylhexyl)phthalate, Dibenzo(a,h)anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(g,h,i)perylene, Chrysene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

Matrix Spike Duplicate Recoverys for 3,3'-Dichlorobenzidine, 4-Chloroaniline, Benzoic acid, Carbazole, Phenanthrene are outside control limits. Probable cause: matrix interference.

Matrix Spike Recoverys for Benzo(b)fluoranthene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Pyrene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

RPDs for MSD for Anthracene are outside control limits for sample OP10439-MSD. Probable cause: sample homogeneity.

Extractables by GC By Method EPA 8310

Matrix: SO **Batch ID:** OP10421

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F24002-2MS, F24002-2MSD were used as the QC samples indicated.

F24092-3: All hits confirmed by spectral match using a diode array detector.

Tuesday, June 01, 2004

Extractables by GC By Method FLORIDA-PRO

Matrix: SO **Batch ID:** OP10425

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F24002-1MS, F24002-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 160.3 M

Matrix: SO **Batch ID:** GN14527

Sample F24039-5DUP was used as the QC sample for Solids, Percent.

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

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F24092

Client: Tetra Tech NUS **Project:** N0039, CT078

Date Received: 5/12/04 **Time Received:** 16:50

# of Coolers Received: 1 **Cooler Temperatures:** 2.8°C

Delivery Method: FedEx UPS (Accutest Courier) Greyhound Delivery Other

Air Bill Number:

Cooler Custody Seals Intact ?	(Yes)	No	
Chain of Custody Provided ?	(Yes)	No	
COC Match Bottle Label ID's ?	(Yes)	No	
Sample Labels Present on all bottles ?	(Yes)	No	
All Analyses Marked On COC ?	(Yes)	No	
Are All Bottles Intact ?	(Yes)	No	
Samples Preserved Correctly ?	(Yes)	No	
Correct Number of Containers Used ?	(Yes)	No	
Sufficient Sample Volume ?	(Yes)	No	
Trip Blank Provided ?	Yes	(No)	
Trip Blank on COC ?	Yes	(No)	
Trip Blank Intact ?	Yes	No	(N/A)
Trip Blank Matrix ?	Soil	Water	(N/A)

Number of Encores ? Ø

Number of Soil Field Kits ? 3

Summary of Comments:

Signature: Jeff Mistiaff **Date:** 5/13/04

Review Signature:

ASBD 12/30/03

Sample Summary

Tetra Tech, NUS

Job No: F24092

NAS Cecil Field-CTO 78
Project No: N0039-WR438, Day Tank 1

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F24092-1	05/10/04	11:20 SM	05/12/04	SO	Soil	CEF-57-TW19-04
F24092-2	05/10/04	12:20 SM	05/12/04	SO	Soil	CEF-57-TW18-04
F24092-3	05/10/04	13:05 SM	05/12/04	SO	Soil	CEF-57-TW17-05
F24092-4	05/10/04	13:25 SM	05/12/04	SO	Soil	CEF-1848-SS01-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Method Blank Summary

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VH946-MB	H025349.D	1	05/14/04	NAF	n/a	n/a	VH946

The QC reported here applies to the following samples: **Method:** SW846 8260B

F24092-2, F24092-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.0	2.0	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	2.0	ug/kg	
108-88-3	Toluene	ND	5.0	2.0	ug/kg	
1330-20-7	Xylene (total)	ND	15	4.5	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	78-123%
2037-26-5	Toluene-D8	99%	71-137%
460-00-4	4-Bromofluorobenzene	103%	61-157%
17060-07-0	1,2-Dichloroethane-D4	102%	74-125%

Instrument Performance Check (BFB)

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample:	VH938-BFB	**Injection Date:**	05/05/04
Lab File ID:	H025154.D	**Injection Time:**	16:17
Instrument ID:	GCMSH		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	16293	22.5		Pass
75	30.0 - 60.0% of mass 95	40355	55.7		Pass
95	Base peak, 100% relative abundance	72429	100.0		Pass
96	5.0 - 9.0% of mass 95	4660	6.4		Pass
173	Less than 2.0% of mass 174	0	0.0	(0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	58043	80.1		Pass
175	5.0 - 9.0% of mass 174	4205	5.8	(7.2) [a]	Pass
176	95.0 - 101.0% of mass 174	56365	77.8	(97.1) [a]	Pass
177	5.0 - 9.0% of mass 176	3734	5.2	(6.6) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VH938-IC938	H025155.D	05/05/04	16:32	00:15	Initial cal 5
VH938-IC938	H025156.D	05/05/04	16:59	00:42	Initial cal 10
VH938-IC938	H025157.D	05/05/04	17:26	01:09	Initial cal 20
VH938-ICC938	H025158.D	05/05/04	17:53	01:36	Initial cal 40
VH938-IC938	H025159.D	05/05/04	18:20	02:03	Initial cal 100
VH938-IC938	H025160.D	05/05/04	18:46	02:29	Initial cal 200

ok

6-17-04

Instrument Performance Check (BFB)

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample:	VH945-BFB	**Injection Date:**	05/13/04
Lab File ID:	H025322.D	**Injection Time:**	12:19
Instrument ID:	GCMSH		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	25728	21.6	Pass
75	30.0 - 60.0% of mass 95	60512	50.8	Pass
95	Base peak, 100% relative abundance	119021	100.0	Pass
96	5.0 - 9.0% of mass 95	7629	6.4	Pass
173	Less than 2.0% of mass 174	239	0.2 (0.26) [a]	Pass
174	50.0 - 100.0% of mass 95	93645	78.7	Pass
175	5.0 - 9.0% of mass 174	6745	5.7 (7.2) [a]	Pass
176	95.0 - 101.0% of mass 174	91451	76.8 (97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	5764	4.8 (6.3) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VH945-CC938	H025323.D	05/13/04	12:34	00:15	Continuing cal 40
VH945-BS	H025324.D	05/13/04	13:13	00:54	Blank Spike
VH945-MB	H025325.D	05/13/04	13:41	01:22	Method Blank
F23973-1	H025326.D	05/13/04	14:22	02:03	(used for QC only; not part of job F24092)
ZZZZZZ	H025327.D	05/13/04	14:48	02:29	(unrelated sample)
F24092-1	H025328.D	05/13/04	15:29	03:10	CEF-57-TW19-04
ZZZZZZ	H025329.D	05/13/04	15:56	03:37	(unrelated sample)
ZZZZZZ	H025331.D	05/13/04	17:31	05:12	(unrelated sample)
ZZZZZZ	H025332.D	05/13/04	17:58	05:39	(unrelated sample)
F23973-1MS	H025333.D	05/13/04	18:25	06:06	Matrix Spike
F23973-1MSD	H025334.D	05/13/04	18:52	06:33	Matrix Spike Duplicate
ZZZZZZ	H025335.D	05/13/04	19:19	07:00	(unrelated sample)
ZZZZZZ	H025336.D	05/13/04	19:45	07:26	(unrelated sample)
ZZZZZZ	H025337.D	05/13/04	20:13	07:54	(unrelated sample)
ZZZZZZ	H025338.D	05/13/04	20:40	08:21	(unrelated sample)
ZZZZZZ	H025339.D	05/13/04	21:07	08:48	(unrelated sample)
ZZZZZZ	H025340.D	05/13/04	21:34	09:15	(unrelated sample)
ZZZZZZ	H025341.D	05/13/04	22:01	09:42	(unrelated sample)
ZZZZZZ	H025342.D	05/13/04	22:28	10:09	(unrelated sample)
ZZZZZZ	H025343.D	05/13/04	22:54	10:35	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample: VH946-BFB
Lab File ID: H025346.D
Instrument ID: GCMSH
Injection Date: 05/14/04
Injection Time: 09:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	24867	21.7	Pass
75	30.0 - 60.0% of mass 95	60176	52.5	Pass
95	Base peak, 100% relative abundance	114611	100.0	Pass
96	5.0 - 9.0% of mass 95	7317	6.4	Pass
173	Less than 2.0% of mass 174	0	0.0 (0.0) [a]	Pass
174	50.0 - 100.0% of mass 95	86725	75.7	Pass
175	5.0 - 9.0% of mass 174	6151	5.4 (7.1) [a]	Pass
176	95.0 - 101.0% of mass 174	85381	74.5 (98.5) [a]	Pass
177	5.0 - 9.0% of mass 176	5438	4.7 (6.4) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VH946-CC938	H025347.D	05/14/04	09:22	00:16	Continuing cal 100
VH946-BS	H025348.D	05/14/04	09:56	00:50	Blank Spike
VH946-MB	H025349.D	05/14/04	10:23	01:17	Method Blank — clean
F24067-1	H025350.D	05/14/04	11:17	02:11	(used for QC only; not part of job F24092)
ZZZZZZ	H025351.D	05/14/04	11:43	02:37	(unrelated sample)
ZZZZZZ	H025352.D	05/14/04	12:10	03:04	(unrelated sample)
ZZZZZZ	H025353.D	05/14/04	12:37	03:31	(unrelated sample)
F24092-2	H025354.D	05/14/04	13:04	03:58	CEF-57-TW18-04
F24067-1MS	H025356.D	05/14/04	13:58	04:52	Matrix Spike
F24067-1MSD	H025357.D	05/14/04	14:24	05:18	Matrix Spike Duplicate
F24092-3	H025358.D	05/14/04	14:51	05:45	CEF-57-TW17-05
ZZZZZZ	H025359.D	05/14/04	15:18	06:12	(unrelated sample)
ZZZZZZ	H025360.D	05/14/04	15:45	06:39	(unrelated sample)
ZZZZZZ	H025361.D	05/14/04	16:12	07:06	(unrelated sample)
ZZZZZZ	H025362.D	05/14/04	16:39	07:33	(unrelated sample)
ZZZZZZ	H025363.D	05/14/04	17:05	07:59	(unrelated sample)
ZZZZZZ	H025364.D	05/14/04	17:32	08:26	(unrelated sample)
ZZZZZZ	H025365.D	05/14/04	17:59	08:53	(unrelated sample)
ZZZZZZ	H025366.D	05/14/04	18:26	09:20	(unrelated sample)
ZZZZZZ	H025367.D	05/14/04	18:53	09:47	(unrelated sample)
ZZZZZZ	H025368.D	05/14/04	19:20	10:14	(unrelated sample)
ZZZZZZ	H025369.D	05/14/04	19:46	10:40	(unrelated sample)
ZZZZZZ	H025370.D	05/14/04	20:13	11:07	(unrelated sample)

DSS 6-17-04

Method Blank Summary

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10439-MB	W019994.D	1	05/17/04	ME	05/14/04	OP10439	SW1052

The QC reported here applies to the following samples: **Method:** SW846 8270C

F24092-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic acid	ND	830	500	ug/kg	
95-57-8	2-Chlorophenol	ND	170	33	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	33	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	33	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	33	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	830	330	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	330	67	ug/kg	
95-48-7	2-Methylphenol	ND	170	33	ug/kg	
	3&4-Methylphenol	ND	170	33	ug/kg	
88-75-5	2-Nitrophenol	ND	170	33	ug/kg	
100-02-7	4-Nitrophenol	ND	830	330	ug/kg	
87-86-5	Pentachlorophenol	ND	830	330	ug/kg	
108-95-2	Phenol	ND	170	33	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	33	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	33	ug/kg	
83-32-9	Acenaphthene	ND	170	33	ug/kg	
208-96-8	Acenaphthylene	ND	170	33	ug/kg	
120-12-7	Anthracene	ND	170	33	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	33	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	33	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	33	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	67	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	33	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	33	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	330	83	ug/kg	
100-51-6	Benzyl Alcohol	ND	170	33	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	33	ug/kg	
106-47-8	4-Chloroaniline	ND	670	250	ug/kg	
86-74-8	Carbazole	ND	170	33	ug/kg	
218-01-9	Chrysene	ND	170	33	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	33	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	67	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	33	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	33	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	170	33	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	170	33	ug/kg	

Method Blank Summary

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10439-MB	W019994.D	1	05/17/04	ME	05/14/04	OP10439	SW1052

The QC reported here applies to the following samples: **Method:** SW846 8270C

F24092-4

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	170	33	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	67	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	67	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	330	170	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	67	ug/kg	
132-64-9	Dibenzofuran	ND	170	33	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	83	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	330	170	ug/kg	
84-66-2	Diethyl phthalate	ND	330	83	ug/kg	
131-11-3	Dimethyl phthalate	ND	330	83	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	330	170	ug/kg	
206-44-0	Fluoranthene	ND	170	33	ug/kg	
86-73-7	Fluorene	ND	170	33	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	33	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	67	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	170	67	ug/kg	
67-72-1	Hexachloroethane	ND	170	67	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	67	ug/kg	
78-59-1	Isophorone	ND	170	33	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	33	ug/kg	
88-74-4	2-Nitroaniline	ND	330	83	ug/kg	
99-09-2	3-Nitroaniline	ND	330	83	ug/kg	
100-01-6	4-Nitroaniline	ND	330	83	ug/kg	
91-20-3	Naphthalene	ND	170	33	ug/kg	
98-95-3	Nitrobenzene	ND	170	33	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	67	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	33	ug/kg	
85-01-8	Phenanthrene	ND	170	33	ug/kg	
129-00-0	Pyrene	ND	170	67	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	33	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	90%	45-114%
4165-62-2	Phenol-d5	91%	44-124%

Method Blank Summary

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10439-MB	W019994.D	1	05/17/04	ME	05/14/04	OP10439	SW1052

The QC reported here applies to the following samples: **Method:** SW846 8270C

F24092-4

CAS No.	Surrogate Recoveries		Limits
118-79-6	2,4,6-Tribromophenol	93%	50-128%
4165-60-0	Nitrobenzene-d5	87%	41-123%
321-60-8	2-Fluorobiphenyl	83%	46-122%
1718-51-0	Terphenyl-d14	101%	45-135%

Instrument Performance Check (DFTPP)

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample:	SW1049-DFTPP	**Injection Date:**	05/13/04
Lab File ID:	W019943.D	**Injection Time:**	13:05
Instrument ID:	GCMSW		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	49418	51.4	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) [a]	Pass
69	Mass 69 relative abundance	41951	43.6	Pass
70	Less than 2.0% of mass 69	84	0.09 (0.2) [a]	Pass
127	40.0 - 60.0% of mass 198	54357	56.5	Pass
197	Less than 1.0% of mass 198	0	0.0	Pass
198	Base peak, 100% relative abundance	96125	100.0	Pass
199	5.0 - 9.0% of mass 198	6533	6.8	Pass
275	10.0 - 30.0% of mass 198	18354	19.1	Pass
365	1.0 - 100.0% of mass 198	1954	2.0	Pass
441	Present, but less than mass 443	10134	10.5 (83.9) [b]	Pass
442	40.0 - 100.0% of mass 198	64205	66.8	Pass
443	17.0 - 23.0% of mass 442	12077	12.6 (18.8) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW1049-IC1049	W019944.D	05/13/04	13:23	00:18	Initial cal 50
SW1049-IC1049	W019945.D	05/13/04	13:54	00:49	Initial cal 5
SW1049-IC1049	W019946.D	05/13/04	14:24	01:19	Initial cal 25
SW1049-ICC1049	W019947.D	05/13/04	14:55	01:50	Initial cal 75
SW1049-IC1049	W019948.D	05/13/04	15:26	02:21	Initial cal 100
SW1049-IC1049	W019949.D	05/13/04	15:57	02:52	Initial cal 125
SW1049-ICV1049	W019950.D	05/13/04	16:28	03:23	Initial cal verification 50

OK

6-17-04

Instrument Performance Check (DFTPP)

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample:	SW1052-DFTPP	**Injection Date:**	05/17/04
Lab File ID:	W019991.D	**Injection Time:**	09:50
Instrument ID:	GCMSW		

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
51	30.0 - 60.0% of mass 198	43080	52.7		Pass
68	Less than 2.0% of mass 69	37	0.05	(0.11) [a]	Pass
69	Mass 69 relative abundance	35165	43.0		Pass
70	Less than 2.0% of mass 69	293	0.36	(0.83) [a]	Pass
127	40.0 - 60.0% of mass 198	45223	55.3		Pass
197	Less than 1.0% of mass 198	85	0.1		Pass
198	Base peak, 100% relative abundance	81797	100.0		Pass
199	5.0 - 9.0% of mass 198	5530	6.8		Pass
275	10.0 - 30.0% of mass 198	15030	18.4		Pass
365	1.0 - 100.0% of mass 198	1739	2.1		Pass
441	Present, but less than mass 443	8078	9.9	(78.9) [b]	Pass
442	40.0 - 100.0% of mass 198	52408	64.1		Pass
443	17.0 - 23.0% of mass 442	10243	12.5	(19.5) [c]	Pass

(a) Value is % of mass 69
(b) Value is % of mass 443
(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW1052-CC1049	W019992.D	05/17/04	10:12	00:22	Continuing cal 75 — ok
OP10439-BS	W019993.D	05/17/04	10:42	00:52	Blank Spike
OP10439-MB	W019994.D	05/17/04	11:12	01:22	Method Blank — clean
F24092-4	W019995.D	05/17/04	11:42	01:52	CEF-1848-SS01-01
ZZZZZZ	W019997.D	05/17/04	12:43	02:53	(unrelated sample)
ZZZZZZ	W019999.D	05/17/04	13:50	04:00	(unrelated sample)
ZZZZZZ	W020000.D	05/17/04	14:21	04:31	(unrelated sample)
ZZZZZZ	W020001.D	05/17/04	14:52	05:02	(unrelated sample)
ZZZZZZ	W020002.D	05/17/04	15:23	05:33	(unrelated sample)
ZZZZZZ	W020003.D	05/17/04	15:54	06:04	(unrelated sample)
F23950-9	W020004.D	05/17/04	16:25	06:35	(used for QC only; not part of job F24092)
OP10439-MS	W020005.D	05/17/04	16:56	07:06	Matrix Spike
OP10439-MSD	W020006.D	05/17/04	17:26	07:36	Matrix Spike Duplicate
ZZZZZZ	W020007.D	05/17/04	17:57	08:07	(unrelated sample)
ZZZZZZ	W020008.D	05/17/04	18:28	08:38	(unrelated sample)
ZZZZZZ	W020009.D	05/17/04	18:58	09:08	(unrelated sample)
ZZZZZZ	W020010.D	05/17/04	19:29	09:39	(unrelated sample)
ZZZZZZ	W020011.D	05/17/04	19:59	10:09	(unrelated sample)
ZZZZZZ	W020013.D	05/17/04	21:00	11:10	(unrelated sample)

SOLID SAMPLE PREP REPORT

Date: 5/14/04 6-17-04 Analytical Method: 8270 Batch#: OP 10439

Prep Method: 3550B 8330A 8332 or Method Analyst: AA / JC

Sample ID	Bottle Number	Amount Extracted (g)	Surrogate Amount	Spike Amount	Final Volume (ml)	Comments
OP 10439 MB		30.0	0.5 mL		1.0 ml	
OP 10439 BS		30.0		0.5 mL		
F24092-4	1	30.5				
F23950-1	2	30.2				
-2	2	30.5				
-3	2	30.2				
-4	2	30.2				
-5	2	30.9				
-6	2	30.3				
-7	2	30.5				
-8	2	30.7				
-9	4	30.2				MS/MSD
-10	2	30.2				
-11	2	30.1				
-12	2	30.1				
-13	2	30.2				
-14	2	30.3				
-15	2	30.3				
-16	2	30.7				
F23954-8	5	30.2				
-9	5	30.7				
-10	5	30.1				
F23950-9 MS	4	30.1	0.5 mL	0.5 mL		
MSD		30.8				
DUP						

Comments:

AA Surrogate ID: 2252 Conc: 200/100 PPm Exp. Date: 11/3/04 Bath Temp.: 85°C

JC

AA Spike ID: ~~CA 0192~~ 2248 Conc: 200/100 PPm Exp. Date: 11/5/04 Bath Temp2.: 30°C

JC

CH2CL2 Lot#: CK072 Hexane Lot#: — Na2SO4 Lot#: SS237

Acetonitrile Lot#: — Methanol Lot#: — Acetone Lot#: A06651

Reagent #: — Reagent #: — Reagent #: —

Relinquished By: Date: 5-15-04

Accepted By: Date: 5-15-04

000268

Method Blank Summary

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10421-MB	AA021664.D	1	05/15/04	MRE	05/13/04	OP10421	GAA1025

The QC reported here applies to the following samples: **Method:** EPA 8310

F24092-1, F24092-2, F24092-3

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	670	170	ug/kg	
208-96-8	Acenaphthylene	ND	670	170	ug/kg	
120-12-7	Anthracene	ND	330	170	ug/kg	
56-55-3	Benzo(a)anthracene	ND	330	83	ug/kg	
50-32-8	Benzo(a)pyrene	ND	67	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	67	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	67	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	67	17	ug/kg	
218-01-9	Chrysene	ND	330	83	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	67	17	ug/kg	
206-44-0	Fluoranthene	ND	330	83	ug/kg	
86-73-7	Fluorene	ND	330	170	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	67	17	ug/kg	
91-20-3	Naphthalene	ND	330	83	ug/kg	
90-12-0	1-Methylnaphthalene	ND	330	83	ug/kg	
91-57-6	2-Methylnaphthalene	ND	330	83	ug/kg	
85-01-8	Phenanthrene	ND	330	170	ug/kg	
129-00-0	Pyrene	ND	330	83	ug/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	86%	49-124%
92-94-4	p-Terphenyl	98%	56-141%

HPLC ANALYSIS LOG

DATE: 5/7/04
COLUMN TYPE: ENVIROSEP PP
INSTRUMENT: HPLC 11

METHODS: 8310
METHOD FILE: 8310-32A
CALIB. DATE: 5/7/04

ANALYST: M. Sg
RUN BATCH: GMA-1014
AMOUNT INJECTED: 10 ul

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	MATRIX	OP BATCH	INITIAL AMOUNT	FINAL VOLUME	DILUTION FACTOR	RUN OK	COMMENTS
AA021434	1	CC1014-40	8310	S2032				1	✓	✓
35	2	ACN							✓	ND
36	3	IC1014-0.4		S2032				100	✓	✓
37	4	IC1014-2.0						20	✓	✓
38	5	IC1014-10						4	✓	✓
39	6	ICC1014-20	ok					2	✓	✓
40	7	IC1014-30						3.4	✓	✓
41	8	IC1014-40						1	✓	✓ passed
42	9	ICV1014-10		S2039				1	✓	✓ passed
43	10	Op10348-BS		S	Op10348	30.0	5	1	✓	✓
44	11	-MB				30.0			✓	ND
45	12	F23798-1				30.6			✓	✓ RE20(1-4) #9 MDL TOXE
46	13	-2				30.0			X	RE 20X
47	14	-3				30.4			X	RE TO Confirm
48	15	-4				30.7	10	20	✓	RE 10X
49	16	-5				30.2		20	✓	RE 10X
50	17	-6				30.2		20	X	RE 4X
51	6	CC1014-20		S2032				2	✓	passed
52	18	F23823-1		S	Op10348	30.3	5	1	X	RE20X
53	19	Op10348-MS				30.5		20	✓	✓
54	20	-MSD				30.6		20	✓	✓
55	21	F23823-3				30.2		1	✓	RE8X(1-4), #10, #11 MDL TOXE
56	22	-4				30.6			✓	RE2X(1-11)
57	23	F23852-1				30.6			X	RE TO Confirm
58	24	F23798-1				30.6		2	✓	✓

Matrix: Designate "W" for Water, "S" for Soil, and "O" for Oil
Sample Amount: Initial Sample Weight (g) or Volume (ml) / Final Volume (ml)

Analyst's Signature: M. L Sg

LC1_LOG.xls NF rev. 9/01

HPLC ANALYSIS LOG

DATE: 5/15/04 A	METHODS: 8310	ANALYST: [illegible]
COLUMN TYPE: Envirosep PP	METHOD FILE: 8310-32A	RUN BATCH: GAA 1025
INSTRUMENT: HPLC1	CALIB. DATE: 5/7/04	AMOUNT INJECTED: 10 ul

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	MATRIX	OP BATCH	INITIAL AMOUNT	FINAL VOLUME	DILUTION FACTOR	RUN OK	COMMENTS
AA021661	1	ACN	8310						✓	✓
62	2	CC1014-10		S2032				4	✓	✓ Anthracene & Sig #1
63	4	OP10421-BS		S	OP10421	30.0	5	1	✓	✓
64	5	⊥ -MB				30.0			✓	ND
65	6	F23991-1				30.8			✓	ND
66	7	⊥ -2				30.0 ~~30.5~~			✓	ND
67	8	⊥ -3				30.5			✓	ND
68	9	F24001-1				30.3			✓	ND
69	10	⊥ -2				30.8			✓	ND
70	11	⊥ -3		⊥	⊥	30.4	⊥	⊥	✓	ND
71	3	CC1014-20		S2032				2	✓	passed
72	12	F24001-4		S	OP10421	30.6	5	1	✓	ND
73	13	⊥ -5				30.5			✓	ND
74	14	⊥ -6				30.3			✓	ND
75	15	⊥ -7				30.4			✓	ND
76	16	F24002-1				30.3			✓	ND
77	17	⊥ -2				30.9			✓	ND
78	18	OP10421-MS				30.8			✓	✓
79	19	⊥ -MSD		⊥	⊥	30.1	⊥	⊥	✓	✓
80	3	CC1014-20		S2032				2	✓	passed
81	20	F24002-3		S	OP10421	30.5	5	1	✓	ND
82	21	F24027-1				30.1			✓	ND
83	22	⊥ -2				30.3			✓	ND
84	23	F24092-1				30.7			✓	ND
85	24	⊥ -2	⊥	⊥	⊥	30.9	⊥		✓	ND

Matrix: Designate "W" for Water, "S" for Soil, and "O" for Oil

Sample Amount: Initial Sample Weight (g) or Volume (ml) / Final Volume (ml)

Analyst's Signature: [illegible]

LC1_LOG.xls NF rev. 9/01

6-17-04

HPLC ANALYSIS LOG

DATE: 5/15/04 AM	METHODS: 8310	ANALYST: M. Eg
COLUMN TYPE: Envirosep PP	METHOD FILE: 8310-32A	RUN BATCH: GAA 1025
INSTRUMENT: HPLC 1	CALIB. DATE: 5/7/04	AMOUNT INJECTED: 10 ml

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	MATRIX	OP BATCH	INITIAL AMOUNT	FINAL VOLUME	DILUTION FACTOR	RUN OK	COMMENTS
AA021686	25	F24092-3	8310	S	op10421	30.7	5	1	✓	5/17/04
87	26	CLC827 LOT QC						1	✓	ND
88	3	FCC1014-20		S2032				2	✓	passed
			OK							

Matrix: Designate "W" for Water, "S" for Soil, and "O" for Oil

Sample Amount: Initial Sample Weight (g) or Volume (ml) / Final Volume (ml)

Analyst's Signature: M. Eg

LC1_LOG.xls NF rev. 9/01

6-17-04

SOLID SAMPLE PREP REPORT

Date: 5/13/04 Analytical Method: 8310 Batch#: OP 10421

Prep Method: 3550B 8330A 8332 or Method 6-17-04 Analyst: AA/JC

Sample ID	Bottle Number	Amount Extracted (g)	Surrogate Amount	Spike Amount	Final Volume (ml)	Comments
OP 10421 MB		30.0	0.5mL		5.0ml	
OP 10421 BS		30.0		0.5mL		
F23991-1	2	30.8				
-2	2	30.0				
-3	2	30.5				
F24001-1	5	30.3				
-2	5	30.8				
-3	5	30.4				ROCKS
-4	5	30.6				
-5	5	30.5				
-6	5	30.3				
-7	5	30.4				
F24002-1	5	30.3				
-2	5	30.9				MS/MSD
-3	5	30.5				
F24027-1	5	30.1				
-2	5	30.3				
F24092-1	5	30.7	0.5ml			
-2	5	30.9				
-3	5	30.7				
F24002-2 MS	5 ~~30.8~~	30.8	0.5mL	0.5mL	5.0ml	
MSD		30.1				
DUP						

Comments:

Surrogate ID: E1510B Conc: 200 ppm Exp. Date: 10/20/04 Bath Temp.: 40°C

Spike ID: E1500 Conc: 200 ppm Exp. Date: 9/29/04 Bath Temp2.: 55°C

CH2CL2 Lot#: CK072 Hexane Lot#: — Na2SO4 Lot#: 55237

Acetonitrile Lot#: CK254 Methanol Lot#: — Acetone Lot#: —

Reagent #: — Reagent #: — Reagent #: —

Relinquished By: [signature] Date: 5/13/04

Accepted By: [signature] Date: 5/13/04

000345

Method Blank Summary

Job Number: F24092
Account: TETRPAPT Tetra Tech, NUS
Project: NAS Cecil Field-CTO 78

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10425-MB	OP38240.D	1	05/15/04	SM	05/13/04	OP10425	GOP1219

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F24092-1, F24092-2, F24092-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	8.3	5.7	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	88%	59-121%

GC ANALYSIS LOG

DATE: 4-7-04	METHODS: FLPro	ANALYST: Sm	
COLUMN TYPE: DB5	METHOD FILE: FLPro-F	RUN BATCH: GOP 119753	
INSTRUMENT: FID 2	CALIB. DATE: 4-7-04	AMOUNT INJECTED: 2 ul	

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	MATRIX	OP BATCH	INITIAL AMOUNT	FINAL VOLUME	DILUTION FACTOR	RUN OK	COMMENTS
OP36943	1	ic1197-1020	PRO	S2034				3:5	✓	r.t.
44	2	-340						1:5	✓	✓
45	3	-680						2:5	✓	✓
46	4	icc1197-1020	OK			Sm		3:5	✓	✓
47	5	ic1197-1360						4:5	✓	✓
48	6	-1700						1x	✓	✓
49	7	-2125	Sm 4/8/04	20706				4x	✓	✓
50	8	-4250		26706				2x	✓	✓
51	9	ICV 1197-850		E1495				2x	✓	ICV
52	10	solvent blank					Sm		✓	solv.

Sm 4-7-04

Sm

Matrix: Designate "W" for Water, "S" for Soil, and "O" for Oil

Sample Amount: Initial Sample Weight (g) or Volume (ml) / Final Volume (ml)

Analyst's Signature: Sm

Gc1_log.xls NF rev. 11/01

GC ANALYSIS LOG

DATE: 5-14-04	METHODS: FLPro	ANALYST: Sm	
COLUMN TYPE: DB5	METHOD FILE: FL Pro-F	RUN BATCH: 60P1219	
INSTRUMENT: FID 2	CALIB. DATE: ~~Sm 5/14 5~~ 4-7-04	AMOUNT INJECTED: 2.2 ul	

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	MATRIX	OP BATCH	INITIAL AMOUNT	FINAL VOLUME	DILUTION FACTOR	RUN OK	COMMENTS
OP38228	23	f23994-3	FLPro	S	10409	30.3	1.0	1x	✓	bdl
29	24	-4				30.8			✓	bdl
30	25	-5				30.4			✓	bdl
31	26	-6				30.6			✓	bdl
32	27	f24001-1				30.1			✓	bdl
33	28	-2				30.2			✓	bdl
34	1	CC1197-1020		S2050				3:5	✓	pass.
35	29	f234001-3		S	10409	30.4	1.0	1x	✓	bdl
36	30	-4				30.7			✓	bdl
37	31	-5				30.4			✓	bdl
38	1	CC1197-1020		S2050				3:5	✓	pass
39	32	OP10425-bS		S	10425	30.0	1.0	1x	✓	✓
40	33	-mb				30.0			✓	✓
41	34	f24001-6				30.2			✓	bdl
42	35	-7				30.3			✓	bdl
43	36	f24002-1				30.0			✓	bdl
44	37	OP10425-ms				30.5			✓	✓
45	38	-msD				30.2			✓	✓
46	39	f24002-2				30.3			✓	bdl
47	40	-3				30.8			✓	~~bdl~~ ✓ Sm 5/15/04
48	41	f24027-1				30.7			✓	bdl
49	1	CC1197-1020	ok	S2050				3:5	✓	pass
50	42	f24027-2		S	10425	30.6	1.0	1x	✓	bdl
51	43	f24039-1				30.4			✓	✓
52	44	-2				30.1			✓	✓

Matrix: Designate "W" for Water, "S" for Soil, and "O" for Oil

Sample Amount: Initial Sample Weight (g) or Volume (ml) / Final Volume (ml)

DS 6-17-04

Analyst's Signature: Sm

Gc1_log.xls NF rev. 11/01

GC ANALYSIS LOG

6-17-04

DATE: 5-14-04		METHODS: FLPro		ANALYST: Sm	
COLUMN TYPE: DB5		METHOD FILE: FLPro-F		RUN BATCH: GOP1219	
INSTRUMENT: FID2		CALIB. DATE: 4-7-04		AMOUNT INJECTED: 2 ul	

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	MATRIX	OP BATCH	INITIAL AMOUNT	FINAL VOLUME	DILUTION FACTOR	RUN OK	COMMENTS
OP38253	45	F24039-3	FLPro	S	10425	30.4	1.0	1	✓	RL 10x
54	46	-4,5				30.1		5	✓	RL 25x
55	47	-5				30.7		1	✓	✓
56	48	-6				30.5		1	✓	✓ bdl
57	49	-7				30.8		1	✓	RL 20x
58	50	-8,10				30.6		10.	✓	✓
59	51	F24092-1				30.8		1	✓	bdl
60	1	CC1197-1020		S2050				3:5	✓	Pass
61	52	F23092-2		S	10425	30.9	1.0	1	✓	✓
62	53	-3				30.6		1	✓	bdl
63	1	CC1197-1020		S2050				3:5	✓	Pass
64	54	OP10426-bs	FLPro	W	10426	1000	1.0	1	✓	✓
65	55	-mb				1000			✓	✓
66	56	F23959-14				930			✓	RL 10x
67	57	-20				950			✓	RL 20x
68	58	F23977-1				990			✓	✓
69	59	-3				1000			✓	✓
70	60	OP10426-ms				500			✓	✓
71	61	-msD				500			✓	✓
72	62	F23977-4				880			✓	✓
73	63	F23979-1				1000			✓	✓
74	1	CC1197-1020		S2050				3:5	✓	Pass
75	2	-340		S2050				1:5	✓	Pass.
76	3	Solvent blank							✓	Solv.
77	64	F23993-6		W	10426	960	1.0	1	✓	bdl ✓ Sm 5/16/04

Matrix: Designate "W" for Water, "S" for Soil, and "O" for Oil

Sample Amount: Initial Sample Weight (g) or Volume (ml) / Final Volume (ml)

Analyst's Signature: Sm

Gc1 log.xls NF rev. 11/01

SOLID SAMPLE PREP REPORT

Date: 5/13/04

Analytical Method: FLPRO

Batch#: OP 10425

Prep Method: 3550B 8330A 8332 or Method

Analyst:

Sample ID	Bottle Number	Amount Extracted (g)	Surrogate Amount	Spike Amount	Final Volume (ml)	Comments
OP 10425 MB	X	30.0	0.5ml		1.0ml	
OP 10425 BS	X	30.0		0.5ml		
F24001-6	5	30.2				
-7	5	30.3				
F24002-1	5	30.0				MS/MSD
-2	5	30.3				
-3	5	30.8				
F24027-1	5	30.7				
-2	5	30.6				
F24039-1	5	30.4				
-2	5	30.1				
-3	5	30.4				
-4	5	30.1				
-5	5	30.7				
-6	5	30.5				
-7	5	30.8				
-8	5	30.6				
F24092-1	5	30.8				
2	5	30.9				
3	5	30.6				
			CMA 5/14/04			
F24002-1 MS	5	30.5	0.5ml	0.5ml	1.0ml	
MSD	5	30.2				
DUP						

Comments:

Surrogate ID: E1522A Conc: 100 ppm Exp. Date: 11/13/04 Bath Temp.: 70°C

Spike ID: E1516 Conc: 100 ppm Exp. Date: 10/30/04 Bath Temp2.: 30°C

CH2CL2 Lot#: CC072 Hexane Lot#: — Na2SO4 Lot#: SS237

Acetonitrile Lot#: — Methanol Lot#: — Acetone Lot#: —

Reagent #: 028220 silicagel Reagent #: — Reagent #: —

Relinquished By: Date: 5/14/04

Accepted By: Date: 5/14/04

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO:	**M. SPERANZA**	**DATE:**	**MAY 11, 2005**
FROM:	**BERNARD F SPADA III**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION- VOC/PAH/PEST/TPH**
CTO 078, NAS CECIL FIELD
SDGs F29983-F29984

SAMPLES: 4/Aqueous

CEF-21-GW-09S-01 CEF-21-GW-09S-DU01 CEF-293-GW-23S-01
CEF-293-GW-DU01

OVERVIEW

The sample set for CTO 078, NAS Cecil Field, SDGs F29983 and F29984 consist of two (2) environmental aqueous samples and two (2) field duplicates. Samples CEF-21-GW-09S-01 and CEF-21-GW-09S-DU01 were analyzed for the pesticide (PEST) chlordane. Samples CEF-293-GW-23S-01 and CEF-293-GW-DU01 were analyzed for volatile organic compounds (VOC), polynuclear aromatic hydrocarbons (PAH), and total petroleum hydrocarbons. The field duplicate pairs included in these SDGs are (CEF-21-GW-09S-01 / CEF-21-GW-09S-DU01) and (CEF-293-GW-23S-01 / CEF-293-GW-DU01).

The samples were collected by TetraTech NUS on February 22, 2005 and analyzed by Accutest Laboratories. All analyses were conducted in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria using SW-846 Methods 8260B, 8310, and 8081A and Florida PRO analytical and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

- Data completeness
- * Holding times
- * Initial and continuing calibration
- * Laboratory method and field quality control blank results
- * Field duplicate precision
- * Detection Limits

The symbol (*) indicates that all 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.

VOC

No qualifications were assigned to this fraction.

PEST

No qualifications were assigned to this fraction.

PAH

The laboratory's initial submittal did not contain the full PAH list in the data package nor EDD. The laboratory was requested to re-submit the data package and EDD including the full PAH list. The laboratory re-submitted the data upon request. No action was taken on this basis.

TPH

Positive results below the reporting limit 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 (10/99) and the NFESC guidelines (September, 1999). The text of this report has been formulated to address only those problem areas affecting data quality.

"I attest that the data referenced herein were validated according to the agreed upon validation criteria as specified in the NFESC guidelines and the Quality Assurance Project Plan (QAPP)."

Bernard F Spada III

Tetra Tech NUS
Bernard F Spada III
Chemist/Data Validator

TetraTech NUS
Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:
1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as Reported by the Laboratory
3. 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 $r < 0.995$
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

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 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: 0039

SDG: F29983 MEDIA: WATER DATA FRACTION: PEST/PCB

nsample	CEF-21-GW-09S-01	nsample	CEF-21-GW-09S-DU01
samp_date	2/22/2005	samp_date	2/22/2005
lab_id	F29983-1	lab_id	F29983-2
qc_type	NM	qc_type	NM
units	UG/L	units	UG/L
Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:	CEF-21-GW-09S-01

Parameter	Result	Val Qual	Qual Code
CHLORDANE (TECHNICAL)	0.26	U	

Parameter	Result	Val Qual	Qual Code
CHLORDANE (TECHNICAL)	0.26	U	

PROJ_NO: 0039

SDG: F29984 MEDIA: WATER DATA FRACTION: OV

nsample	CEF-293-GW-23S-01
samp_date	2/22/2005
lab_id	F29984-1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
2-BUTANONE	2.5	U	
2-HEXANONE	2.5	U	
4-METHYL-2-PENTANONE	2.5	U	
ACETONE	5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYLENE CHLORIDE	1	U	
STYRENE	0.5	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

nsample	CEF-293-GW-23S-01
samp_date	2/22/2005
lab_id	F29984-1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

nsample	CEF-293-GW-DU01
samp_date	2/22/2005
lab_id	F29984-2
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	CEF-293-GW-23S-01

Parameter	Result	Val Qual	Qual Code
1,1,1-TRICHLOROETHANE	0.5	U	
1,1,2,2-TETRACHLOROETHANE	0.3	U	
1,1,2-TRICHLOROETHANE	0.5	U	
1,1-DICHLOROETHANE	0.5	U	
1,1-DICHLOROETHENE	0.5	U	
1,2-DICHLOROETHANE	0.5	U	
1,2-DICHLOROPROPANE	0.5	U	
2-BUTANONE	2.5	U	
2-HEXANONE	2.5	U	
4-METHYL-2-PENTANONE	2.5	U	
ACETONE	5	U	
BENZENE	0.5	U	
BROMODICHLOROMETHANE	0.5	U	
BROMOFORM	0.5	U	
BROMOMETHANE	1	U	
CARBON DISULFIDE	1	U	
CARBON TETRACHLORIDE	0.5	U	
CHLOROBENZENE	0.5	U	
CHLORODIBROMOMETHANE	0.4	U	
CHLOROETHANE	1	U	
CHLOROFORM	0.5	U	
CHLOROMETHANE	1	U	
CIS-1,2-DICHLOROETHENE	0.5	U	
CIS-1,3-DICHLOROPROPENE	0.3	U	
ETHYLBENZENE	0.5	U	
METHYLENE CHLORIDE	1	U	
STYRENE	0.5	U	
TETRACHLOROETHENE	0.5	U	
TOLUENE	0.5	U	
TOTAL XYLENES	1	U	
TRANS-1,2-DICHLOROETHENE	0.5	U	
TRANS-1,3-DICHLOROPROPENE	0.3	U	

PROJ_NO: 0039

SDG: F29984 MEDIA: WATER DATA FRACTION: OV

nsample	CEF-293-GW-DU01
samp_date	2/22/2005
lab_id	F29984-2
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	CEF-293-GW-23S-01

Parameter	Result	Val Qual	Qual Code
TRICHLOROETHENE	0.5	U	
VINYL CHLORIDE	0.5	U	

PROJ_NO: 0039

SDG: F29984 MEDIA: WATER DATA FRACTION: PAH

nsample	CEF-293-GW-23S-01	nsample	CEF-293-GW-DU01
samp_date	2/22/2005	samp_date	2/22/2005
lab_id	F29984-1	lab_id	F29984-2
qc_type	NM	qc_type	NM
units	UG/L	units	UG/L
Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:	CEF-293-GW-23S-01

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.5	U	
2-METHYLNAPHTHALENE	0.5	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	1	U	
BENZO(A)ANTHRACENE	0.1	U	
BENZO(A)PYRENE	0.1	U	
BENZO(B)FLUORANTHENE	0.1	U	
BENZO(G,H,I)PERYLENE	0.1	U	
BENZO(K)FLUORANTHENE	0.1	U	
CHRYSENE	1	U	
DIBENZO(A,H)ANTHRACENE	0.1	U	
FLUORANTHENE	0.5	U	
FLUORENE	1	U	
INDENO(1,2,3-CD)PYRENE	0.1	U	
NAPHTHALENE	1	U	
PHENANTHRENE	1	U	
PYRENE	0.5	U	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.5	U	
2-METHYLNAPHTHALENE	0.5	U	
ACENAPHTHENE	1	U	
ACENAPHTHYLENE	1	U	
ANTHRACENE	1	U	
BENZO(A)ANTHRACENE	0.1	U	
BENZO(A)PYRENE	0.1	U	
BENZO(B)FLUORANTHENE	0.1	U	
BENZO(G,H,I)PERYLENE	0.1	U	
BENZO(K)FLUORANTHENE	0.1	U	
CHRYSENE	1	U	
DIBENZO(A,H)ANTHRACENE	0.1	U	
FLUORANTHENE	0.5	U	
FLUORENE	1	U	
INDENO(1,2,3-CD)PYRENE	0.1	U	
NAPHTHALENE	1	U	
PHENANTHRENE	1	U	
PYRENE	0.5	U	

PROJ_NO: 0039

SDG: F29984 MEDIA: WATER DATA FRACTION: PET

nsample	CEF-293-GW-23S-01	nsample	CEF-293-GW-DU01
samp_date	2/22/2005	samp_date	2/22/2005
lab_id	F29984-1	lab_id	F29984-2
qc_type	NM	qc_type	NM
units	MG/L	units	MG/L
Pct_Solids		Pct_Solids	
DUP_OF:		DUP_OF:	CEF-293-GW-23S-01

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	0.184	J	P

Parameter	Result	Val Qual	Qual Code
TOTAL PETROLEUM HYDROCARBONS	0.196	J	P

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-21-GW-09S-01		
Lab Sample ID:	F29983-1	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Site 21		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK06394.D	1	03/01/05	AA	02/25/05	OP12574	GKK251
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	10.0 ml
Run #2		

Pesticide Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
12789-03-6	Chlordane	0.26 U	0.53	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	91%		60-138%
2051-24-3	Decachlorobiphenyl	75%		31-148%

U = Not detected MDL - Method Detection Limit I = Result > = MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

0034

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-21-GW-09S-DU01		
Lab Sample ID:	F29983-2	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	SW846 8081A SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Site 21		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK06397.D	1	03/01/05	AA	02/25/05	OP12574	GKK251
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	10.0 ml
Run #2		

Pesticide Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
12789-03-6	Chlordane	0.26 U	0.53	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		60-138%
2051-24-3	Decachlorobiphenyl	71%		31-148%

0037

U = Not detected MDL - Method Detection Limit I = Result > = MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-293-GW-23S-01		
Lab Sample ID:	F29984-1	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0002719.D	1	03/01/05	NJ	n/a	n/a	VN124
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.0 U	25	5.0	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	2.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
591-78-6	2-Hexanone	2.5 U	5.0	2.5	ug/l	
108-10-1	4-Methyl-2-pentanone	2.5 U	5.0	2.5	ug/l	
74-83-9	Methyl bromide	1.0 U	2.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	2.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.5 U	5.0	2.5	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	

0086

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-293-GW-23S-01		
Lab Sample ID:	F29984-1	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Day Tank 1		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		86-115%
17060-07-0	1,2-Dichloroethane-D4	106%		73-126%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	115%		83-119%

0087

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

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-293-GW-DU01		
Lab Sample ID:	F29984-2	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0002720.D	1	03/01/05	NJ	n/a	n/a	VN124
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.0 U	25	5.0	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	ug/l	
75-00-3	Chloroethane	1.0 U	2.0	1.0	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	0.50 U	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	0.40 U	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.30 U	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	ug/l	
591-78-6	2-Hexanone	2.5 U	5.0	2.5	ug/l	
108-10-1	4-Methyl-2-pentanone	2.5 U	5.0	2.5	ug/l	
74-83-9	Methyl bromide	1.0 U	2.0	1.0	ug/l	
74-87-3	Methyl chloride	1.0 U	2.0	1.0	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.5 U	5.0	2.5	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.30 U	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	ug/l	

0091

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-293-GW-DU01		
Lab Sample ID:	F29984-2	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Day Tank 1		

VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
75-01-4	Vinyl chloride	0.50 U	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	1.0 U	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		86-115%
17060-07-0	1,2-Dichloroethane-D4	106%		73-126%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	116%		83-119%

0092

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-293-GW-23S-01		
Lab Sample ID:	F29984-1	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE030251.D	1	02/28/05	MRE	02/24/05	OP12567	GEE1191
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
91-20-3	Naphthalene	1.0 U	2.0	1.0	ug/l	
90-12-0	1-Methylnaphthalene	0.50 U	2.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	0.50 U	2.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		36-114%
92-94-4	p-Terphenyl	81%		31-121%

U = Not detected MDL - Method Detection Limit I = Result >= MDL but < RL J = Estimated value
RL = Reporting Limit V = Indicates analyte found in associated method blank
L = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

0186

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-293-GW-23S-01		
Lab Sample ID:	F29984-1	Date Sampled:	02/22/05
Matrix:	AQ - Ground Water	Date Received:	02/24/05
Method:	SW846 8310 SW846 3510C	Percent Solids:	n/a
Project:	NAS Cecil Field-Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE030251.D	1	02/28/05	MRE	02/24/05	OP12567	GEE1191
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.0 U	4.0	1.0	ug/l	
208-96-8	Acenaphthylene	1.0 U	4.0	1.0	ug/l	
120-12-7	Anthracene	1.0 U	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	0.10 U	0.20	0.10	ug/l	
50-32-8	Benzo(a)pyrene	0.10 U	0.20	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	0.10 U	0.20	0.10	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.10 U	0.20	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	0.10 U	0.20	0.10	ug/l	
218-01-9	Chrysene	1.0 U	2.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.10 U	0.20	0.10	ug/l	
206-44-0	Fluoranthene	0.50 U	2.0	0.50	ug/l	
86-73-7	Fluorene	1.0 U	2.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.10 U	0.20	0.10	ug/l	
91-20-3	Naphthalene	1.0 U	2.0	1.0	ug/l	
90-12-0	1-Methylnaphthalene	0.50 U	2.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	0.50 U	2.0	0.50	ug/l	
85-01-8	Phenanthrene	1.0 U	2.0	1.0	ug/l	
129-00-0	Pyrene	0.50 U	2.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		36-114%
92-94-4	p-Terphenyl	81%		31-121%

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-293-GW-DU01		
Lab Sample ID:	F29984-2	Date Sampled:	02/22/05
Matrix:	AQ - Ground Water	Date Received:	02/24/05
Method:	SW846 8310 SW846 3510C	Percent Solids:	n/a
Project:	NAS Cecil Field-Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE030254.D	1	02/28/05	MRE	02/24/05	OP12567	GEE1191
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.0 U	4.0	1.0	ug/l	
208-96-8	Acenaphthylene	1.0 U	4.0	1.0	ug/l	
120-12-7	Anthracene	1.0 U	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	0.10 U	0.20	0.10	ug/l	
50-32-8	Benzo(a)pyrene	0.10 U	0.20	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	0.10 U	0.20	0.10	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.10 U	0.20	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	0.10 U	0.20	0.10	ug/l	
218-01-9	Chrysene	1.0 U	2.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.10 U	0.20	0.10	ug/l	
206-44-0	Fluoranthene	0.50 U	2.0	0.50	ug/l	
86-73-7	Fluorene	1.0 U	2.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.10 U	0.20	0.10	ug/l	
91-20-3	Naphthalene	1.0 U	2.0	1.0	ug/l	
90-12-0	1-Methylnaphthalene	0.50 U	2.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	0.50 U	2.0	0.50	ug/l	
85-01-8	Phenanthrene	1.0 U	2.0	1.0	ug/l	
129-00-0	Pyrene	0.50 U	2.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		36-114%
92-94-4	p-Terphenyl	90%		31-121%

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

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-293-GW-23S-01		
Lab Sample ID:	F29984-1	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP47454.D	1	02/25/05	SM	02/24/05	OP12568	GOP1398
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.184	0.26	0.18	mg/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		50-125%

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

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

0295

Accutest Laboratories

Report of Analysis

Client Sample ID:	CEF-293-GW-DU01		
Lab Sample ID:	F29984-2	**Date Sampled:**	02/22/05
Matrix:	AQ - Ground Water	**Date Received:**	02/24/05
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	NAS Cecil Field-Day Tank 1		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP47457.D	1	02/25/05	SM	02/24/05	OP12568	GOP1398
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.196	0.27	0.18	mg/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%		50-125%

0298

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

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

APPENDIX C

SUPPORT DOCUMENTATION

NAS CECIL FIELD
WATER DATA
F29984

FRACTION	CHEMICAL	CEF-293-GW-23S-01	UNITS	CEF-293-GW-DU01	RPD	D
PET	TOTAL PETROLEUM HYDROCARBON	0.184 I	MG/L	0.196 I	6.32	0.01

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

HOLDTIME

SDG F29983

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
PEST	%	CEF-21-GW-09S-DU01	F29983-2	NM	2/22/2005	2/25/2005	3/1/2005	3	4	7
PEST	%	CEF-21-GW-09S-01	F29983-1	NM	2/22/2005	2/25/2005	3/1/2005	3	4	7
PEST	UG/L	CEF-21-GW-09S-DU01	F29983-2	NM	2/22/2005	2/25/2005	3/1/2005	3	4	7
PEST	UG/L	CEF-21-GW-09S-01	F29983-1	NM	2/22/2005	2/25/2005	3/1/2005	3	4	7

HOLDTIME

SDG F29984

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	%	CEF-293-GW-DU01	F29984-2	NM	2/22/2005	3/1/2005	3/1/2005	7	0	7
OV	%	CEF-293-GW-23S-01	F29984-1	NM	2/22/2005	3/1/2005	3/1/2005	7	0	7
OV	UG/L	CEF-293-GW-DU01	F29984-2	NM	2/22/2005	3/1/2005	3/1/2005	7	0	7
OV	UG/L	CEF-293-GW-23S-01	F29984-1	NM	2/22/2005	3/1/2005	3/1/2005	7	0	7
PAH	%	CEF-293-GW-DU01	F29984-2	NM	2/22/2005	2/24/2005	2/28/2005	2	4	6
PAH	%	CEF-293-GW-23S-01	F29984-1	NM	2/22/2005	2/24/2005	2/28/2005	2	4	6
PAH	UG/L	CEF-293-GW-DU01	F29984-2	NM	2/22/2005	2/24/2005	2/28/2005	2	4	6
PAH	UG/L	CEF-293-GW-23S-01	F29984-1	NM	2/22/2005	2/24/2005	2/28/2005	2	4	6
TPH	MG/L	CEF-293-GW-DU01	F29984-2	NM	2/22/2005	2/24/2005	2/25/2005	2	1	3
TPH	MG/L	CEF-293-GW-23S-01	F29984-1	NM	2/22/2005	2/24/2005	2/25/2005	2	1	3

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech NUS **Job No:** F29983

Site: NAS Cecil Field-Site 21 **Report Date:** 3/16/2005 2:40:06 PM

2 Samples were collected on 02/22/2005 and were received at Accutest on 02/24/2005 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of F29983. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Extractables by GC by Method SW846 8081A

Matrix: AQ **Batch ID:** OP12574

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

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

Narrative prepared by:

Date: March 16, 2005

Ellen Pampel, Inorganic QA (signature on file)

Wednesday, March 16, 2005

0004

TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER 21-021705

PAGE 1 OF 8000

PROJECT NO: N0039 CTO 78	FACILITY: SITE 21, NASCF	PROJECT MANAGER: MARK SPERANZA	PHONE NUMBER: 412 921 8916	LABORATORY NAME AND CONTACT: ACCUTEST H. WANDREY
SAMPLERS (SIGNATURE): Alan Pitts, Rob Lentz	F29983	FIELD OPERATIONS LEADER: MERV DALE	PHONE NUMBER: 904 636 6125	ADDRESS: 4405 Vineland Rd.
		CARRIER/WAYBILL NUMBER: ~~Fedex~~ Courier		CITY, STATE: ORLANDO, FL 32811

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

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: None
TYPE OF ANALYSIS: Total Chlordane *

	DATE YEAR 2005	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	Total Chlordane *	COMMENTS
1	2/22	1220	CEF-21-GW-095-01				GW	G	3	✓	Cool to 4°C
2	2/22	0000	CEF-21-GW-DU01			MD	~~GW~~ QC	G	1	✓	Work Release 100/204
											* SW 846 8081A
											Use extra volume on "CEF-21-GW-095-01" for Lab MS/MSD.

1. RELINQUISHED BY: Merv Dale	DATE 2/23/05	TIME 1235	1. RECEIVED BY: M. Viel	DATE 2/23/05	TIME 12:35
2. RELINQUISHED BY: M. Viel	DATE 2/23/05	TIME 17:20	2. RECEIVED BY: A/PM	DATE	TIME
3. RELINQUISHED BY: A/PM	DATE	TIME	3. RECEIVED BY: Carlos	DATE 2/24/05	TIME 08:00
COMMENTS					

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

4/02R

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech NUS **Job No:** F29984

Site: NAS Cecil Field-Day Tank 1 **Report Date:** 3/16/2005 2:41:37 PM

2 Samples were collected on 02/22/2005 and were received at Accutest on 02/24/2005 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of F29984. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

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

Volatiles by GCMS by Method SW846 8260B

Matrix: AQ **Batch ID:** VN124

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F29984-1MS, F29984-1MSD were used as the QC samples indicated.

Extractables by GC by Method FLORIDA-PRO

Matrix: AQ **Batch ID:** OP12568

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F29984-1MS, F29984-1MSD were used as the QC samples indicated.

Extractables by GC by Method SW846 8310

Matrix: AQ **Batch ID:** OP12567

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F29984-1MS, F29984-1MSD were used as the QC samples indicated.

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

Narrative prepared by:

Date: March 16, 2005

Ellen Pampel, Inorganic QA (signature on file)

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER DT1 - 001 | PAGE 1 OF 1 8000

PROJECT NO: N0039 CTO 78	FACILITY: DAY TANK 1	PROJECT MANAGER: MARK SPERANZA	PHONE NUMBER: 412 921 8916
SAMPLERS (SIGNATURE): Alan Pate, Robert Lumpkin		FIELD OPERATIONS LEADER: MERV DALE	PHONE NUMBER: 904 636 6125
		CARRIER/WAYBILL NUMBER: ~~Fedex~~ Courier	

LABORATORY NAME AND CONTACT: ACCUTEST H. WANDREY

ADDRESS: 4405 Vineland Rd. C-15

CITY, STATE: ORLANDO, FL 32811

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

F29984

DATE YEAR 2005	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAP (G) COMP (C)	No. OF CONTAINERS	TCL VOC * 8260B	PAH 8310	TRPH FL-PRO					COMMENTS
CONTAINER TYPE PLASTIC (P) or GLASS (G)									G	G	G					
PRESERVATIVE USED									HCl	None	H_2SO_4					
2/22	0950	CEF-293-GW-235-01				GW	G	21	✓	✓	✓					Cool to 4°C
2/22	0000	CEF-293-GW-DU01				QC	G	7	✓	✓	✓					
																* No MTBE
																Work Release 1001204
																Use extra volume on "CEF-293-GW-235-01" for the Lab MS/MSD.

1. RELINQUISHED BY: Merv W. Dale	DATE 2/23/05	TIME 1235	1. RECEIVED BY: [signature]	DATE 2/23/05	TIME 12:35
2. RELINQUISHED BY: [signature]	DATE 2/23/05	TIME 17:20	2. RECEIVED BY: AIPU	DATE	TIME
3. RELINQUISHED BY: AIPU	DATE	TIME	3. RECEIVED BY: [signature]	DATE 2/24/05	TIME 08:00

COMMENTS

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

4/02R

Initial Calibration Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample: GKK245-ICC245
Lab FileID: KK06221.D

Response Factor Report GC-KK-LL

Method : C:\MSDCHEM\1\METHODS\8081A.M (Chemstation Integrator)
Title : Pesticides by 608 or 8081
Last Update : Wed Feb 16 15:52:52 2005
Response via : Initial Calibration

Calibration Files
5 =KK06218.D 10 =KK06219.D 20 =KK06220.D 40 =KK06221.D
60 =KK06222.D 80 =KK06223.D c200=KK06225.D t500=KK06224.D

Compound	5	10	20	40	60	80	c200	t500	Avg	%RSD
1) Tetrachloro-	8.707	9.732	9.278	9.317	9.947	9.670			9.442 E3	4.67
2) alpha-BHC	1.314	1.635	1.649	1.728	1.786	1.743			1.643 E4	10.42
3) gamma-BHC (L	1.225	1.404	1.424	1.454	1.556	1.518			1.430 E4	8.08
4) beta-BHC	3.891	4.444	4.443	4.509	4.923	5.054			4.544 E3	9.09
5) Heptachlor	0.984	1.106	1.144	1.146	1.205	1.165			1.125 E4	6.77
6) delta-BHC	0.748	0.889	0.994	1.088	1.201	1.230			1.025 E4	18.15
---- Quadratic regression ---- Coefficient = 0.9995										
Response Ratio = -19629.21814 + 10575.84458 *A + 25.45526 *A^2										
7) Aldrin	0.988	1.159	1.176	1.203	1.254	1.204			1.164 E4	7.92
8) Heptachlor E	0.915	1.034	1.055	1.082	1.124	1.097			1.051 E4	7.01
9) gamma-Chlord	0.797	0.941	0.968	1.023	1.105	1.064			0.983 E4	11.12
10) alpha-Chlord	0.832	0.964	0.949	1.002	1.060	1.061			0.978 E4	8.74
11) Endosulfan	0.828	0.953	0.935	0.959	1.005	0.957			0.940 E4	6.33
12) 4,4'-DDE		6.976	7.087	7.870	8.488	8.535			7.791 E3	9.53
13) Dieldrin	0.849	0.995	1.035	1.061	1.148	1.103			1.032 E4	10.11
14) Endrin	7.159	8.111	8.599	8.972	9.370	9.069			8.547 E3	9.43
15) 4,4'-DDD	4.733	5.422	5.589	5.961	6.332	6.462			5.750 E3	11.15
16) Endosulfan I	7.029	8.124	8.130	8.363	8.871	8.565			8.180 E3	7.71
17) 4,4'-DDT	4.327	5.217	5.695	6.023	6.792	6.781			5.806 E3	16.37
---- Quadratic regression ---- Coefficient = 0.9987										
Response Ratio = -10896.95527 + 6090.51188 *A + 11.09601 *A^2										
18) Endrin Aldeh		6.486	6.499	6.581	7.073	6.936			6.715 E3	4.04
19) Endosulfan S	7.030	7.655	7.764	7.738	8.502	8.264			7.825 E3	6.57
20) Methoxychlor	2.238	2.673	2.691	2.799	3.144	3.058			2.767 E3	11.68
21) Endrin Keton		8.085	8.003	7.962	8.434	8.266			8.150 E3	2.42
22) Chlordane-A							4.017		4.017 E2	0.00
23) Chlordane-B							4.873		4.873 E2	0.00
24) Chlordane-C							1.007		1.007 E3	0.00
25) Chlordane-D							5.817		5.817 E2	0.00
26) Chlordane-E							8.522		8.522 E2	0.00
27) Chlordane-F							2.503		2.503 E2	0.00
28) Toxaphene								1.222	1.222 E5	0.00
29) Decachlorobi	3.579	3.825	3.560	3.659	3.699	3.610			3.655 E3	2.67

Signal #2

1) Tetrachloro-	1.680	1.956	1.917	1.962	2.016	1.969			1.917 E4	6.28
2) alpha-BHC	2.691	3.283	3.342	3.485	3.685	3.655			3.357 E4	10.84
3) gamma-BHC (L	2.378	2.887	2.939	3.018	3.253	3.218			2.949 E4	10.72
4) beta-BHC	1.022	1.105	1.115	1.148	1.256	1.217			1.144 E4	7.32
5) Heptachlor	2.016	2.457	2.478	2.502	2.649	2.532			2.439 E4	8.95
6) delta-BHC	1.789	2.144	2.356	2.612	2.852	2.878			2.438 E4	17.48
---- Quadratic regression ---- Coefficient = 0.9994										
Response Ratio = -54665.03593 + 26282.27808 *A + 42.09661 *A^2										

C68

Initial Calibration Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample: GKK245-ICC245
Lab FileID: KK06221.D

7)	Aldrin	2.099	2.549	2.595	2.607	2.781	2.655			2.548 E4	9.17
8)	Heptachlor E	1.938	2.208	2.256	2.389	2.444	2.330			2.261 E4	7.95
9)	gamma-Chlord	1.768	2.065	2.185	2.357	2.576	2.496			2.241 E4	13.37
10)	alpha-Chlord	1.868	2.099	2.176	2.300	2.433	2.378			2.209 E4	9.42
11)	Endosulfan	1.661	1.911	1.996	2.041	2.146	2.059			1.969 E4	8.60
12)	4,4'-DDE	1.135	1.410	1.528	1.682	1.903	1.868			1.588 E4	18.41

---- Quadratic regression ---- Coefficient = 0.9980
Response Ratio = -42108.97094 + 17661.19355 *A + 22.10630 *A^2

13)	Dieldrin	1.827	2.115	2.243	2.327	2.460	2.353			2.221 E4	10.12
14)	Endrin	1.547	1.815	1.904	1.980	2.085	2.030			1.893 E4	10.27
15)	4,4'-DDD	1.055	1.275	1.289	1.385	1.521	1.475			1.333 E4	12.60
16)	Endosulfan I	1.653	1.831	1.930	1.936	2.066	2.030			1.908 E4	7.85
17)	4,4'-DDT	0.718	0.881	1.035	1.161	1.388	1.351			1.089 E4	24.18

---- Quadratic regression ---- Coefficient = 0.9961
Response Ratio = -38304.67337 + 12369.22797 *A + 23.05462 *A^2

18)	Endrin Aldeh	0.905	1.048	1.047	1.087	1.164	1.143			1.066 E4	8.64
19)	Endosulfan S	1.321	1.579	1.615	1.620	1.760	1.694			1.598 E4	9.42
20)	Methoxychlor	4.251	5.243	5.417	5.851	6.656	6.413			5.638 E3	15.48

---- Quadratic regression ---- Coefficient = 0.9971
Response Ratio = -13549.67512 + 6281.74985 *A + 4.87848 *A^2

21)	Endrin Keton		1.461	1.514	1.571	1.662	1.672			1.576 E4	5.83
22)	Chlordane-A							8.203		8.203 E2	0.00
23)	Chlordane-B							1.020		1.020 E3	0.00
24)	Chlordane-C							2.167		2.167 E3	0.00
25)	Chlordane-D							3.011		3.011 E3	0.00
26)	Chlordane-E							4.050		4.050 E2	0.00
27)	Chlordane-F							5.304		5.304 E2	0.00
28)	Toxaphene								2.128	2.128 E5	0.00
29)	Decachlorobi	8.671	9.290	8.808	9.211	9.711	9.546			9.206 E3	4.41

(#) = Out of Range ### Number of calibration levels exceeded format ###

8081A.M Thu Feb 17 07:59:48 2005

0069

Continuing Calibration Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample: GKK251-CC245
Lab FileID: KK06390.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0301PEST\KK06390.D\ECD1B.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\0301PEST\KK06390.D\ECD2A.CH
Acq On : 3-1-05 03:37:22 PM Operator: aubreya
Sample : cc245-40 Inst : GC-KK-LL
Misc : op12576,gkk251,100,,,10,1,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\MSDCHEM\1\METHODS\8081A.M (Chemstation Integrator)
Title : Pesticides by 608 or 8081
Last Update : Wed Feb 16 15:52:52 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	40.000	41.142	-2.9	104	0.00	5.25- 5.45
2		alpha-BHC	40.000	43.089	-7.7	102	0.00	6.40- 6.60
3		gamma-BHC (Lindane)	40.000	42.719	-6.8	105	0.00	7.03- 7.23
4		beta-BHC	40.000	42.868	-7.2	108	0.00	7.15- 7.35
5		Heptachlor	40.000	43.735	-9.3	107	0.00	7.53- 7.73
		----------	Amount	Calc.	%Drift	----------		
6		delta-BHC	40.000	42.586	-6.5	110	0.00	7.72- 7.92
		----------	Amount	Calc.	%Drift	----------		
7		Aldrin	40.000	40.807	-2.0	99	-0.01	8.04- 8.24
8		Heptachlor Epoxide	40.000	41.467	-3.7	101	0.00	8.90- 9.10
9		gamma-Chlordane	40.000	42.864	-7.2	103	-0.01	9.15- 9.35
10		alpha-Chlordane	40.000	42.540	-6.3	104	0.00	9.39- 9.59
11		Endosulfan I	40.000	40.942	-2.4	100	-0.01	9.43- 9.63
12		4,4'-DDE	40.000	41.581	-4.0	103	0.00	9.80-10.00
13		Dieldrin	40.000	41.943	-4.9	102	-0.01	9.91-10.11
14		Endrin	40.000	42.946	-7.4	102	0.00	10.47-10.67
15		4,4'-DDD	40.000	46.818	-17.0#	113	0.00	10.66-10.86
16		Endosulfan II	40.000	43.290	-8.2	106	0.00	10.75-10.95
		----------	Amount	Calc.	%Drift	----------		
17		4,4'-DDT	40.000	41.772	-4.4	109	0.00	11.10-11.30
		----------	Amount	Calc.	%Drift	----------		
18		Endrin Aldehyde	40.000	40.851	-2.1	104	-0.01	11.24-11.44
19		Endosulfan Sulfate	40.000	44.040	-10.1	111	0.00	11.40-11.60
20		Methoxychlor	40.000	47.139	-17.8#	116	0.00	12.31-12.51
21		Endrin Ketone	40.000	44.016	-10.0	113	-0.01	12.51-12.71
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
27	L1	Chlordane-F		----------NA----------				
28	H	Toxaphene		----------NA----------				
29	S	Decachlorobiphenyl	40.000	42.854	-7.1	107	-0.02	14.78-14.98

***** Signal #2 *****

1	S	Tetrachloro-m-xylene	40.000	41.889	-4.7	102	-0.01	5.20- 5.40

0091

Continuing Calibration Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample: GKK251-CC245
Lab FileID: KK06390.D

			Amount	Calc.	%Drift			
2		alpha-BHC	40.000	43.518	-8.8	105	-0.01	6.67- 6.87
3		gamma-BHC (Lindane)	40.000	43.619	-9.0	107	-0.01	7.29- 7.49
4		beta-BHC	40.000	41.845	-4.6	104	-0.01	8.42- 8.62
5		Heptachlor	40.000	44.292	-10.7	108	-0.01	7.59- 7.79
			Amount	Calc.	%Drift			
6		delta-BHC	40.000	40.889	-2.2	104	-0.01	8.78- 8.98
			Amount	Calc.	%Drift			
7		Aldrin	40.000	41.791	-4.5	102	-0.01	8.00- 8.20
8		Heptachlor Epoxide	40.000	41.501	-3.8	98	-0.01	9.01- 9.21
9		gamma-Chlordane	40.000	42.775	-6.9	102	-0.01	9.49- 9.69
10		alpha-Chlordane	40.000	43.858	-9.6	105	-0.01	9.57- 9.77
11		Endosulfan I	40.000	43.810	-9.5	106	-0.01	9.41- 9.61
			Amount	Calc.	%Drift			
12		4,4'-DDE	40.000	41.043	-2.6	107	-0.01	9.72- 9.92
			Amount	Calc.	%Drift			
13		Dieldrin	40.000	42.884	-7.2	102	-0.01	9.96-10.16
14		Endrin	40.000	44.871	-12.2	107	-0.02	10.27-10.47
15		4,4'-DDD	40.000	48.145	-20.4#	116	-0.01	10.91-11.11
16		Endosulfan II	40.000	42.768	-6.9	105	-0.01	10.99-11.19
			Amount	Calc.	%Drift			
17		4,4'-DDT	40.000	42.143	-5.4	113	-0.01	11.13-11.33
			Amount	Calc.	%Drift			
18		Endrin Aldehyde	40.000	42.503	-6.3	104	-0.01	11.54-11.74
19		Endosulfan Sulfate	40.000	44.005	-10.0	109	-0.02	11.96-12.16
			Amount	Calc.	%Drift			
20		Methoxychlor	40.000	41.646	-4.1	110	-0.01	11.92-12.12
			Amount	Calc.	%Drift			
21		Endrin Ketone	40.000	43.246	-8.1	108	-0.02	12.57-12.77
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
27	L1	Chlordane-F		----------NA----------				
28	H	Toxaphene		----------NA----------				
29	S	Decachlorobiphenyl	40.000	43.805	-9.5	109	-0.02	13.92-14.12

(#) = Out of Range SPCC's out = 0 CCC's out = 0
KK06221.D 8081A.M Wed Mar 02 08:01:47 2005

0092

Continuing Calibration Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample: GKK251-ECC245
Lab FileID: KK06398.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0301PEST\KK06398.D\ECD1B.CH Vial: 19
Signal #2 : C:\MSDCHEM\1\DATA\0301PEST\KK06398.D\ECD2A.CH
Acq On : 3-1-05 06:31:12 PM Operator: aubreya
Sample : ecc245-20 Inst : GC-KK-LL
Misc : op12574,gkk251,950,,,10,1,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\MSDCHEM\1\METHODS\8081A.M (Chemstation Integrator)
Title : Pesticides by 608 or 8081
Last Update : Wed Feb 16 15:52:52 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	Tetrachloro-m-xylene	20.000	19.054	4.7	97	0.00	5.25- 5.45
2		alpha-BHC	20.000	19.586	2.1	98	0.00	6.40- 6.60
3		gamma-BHC (Lindane)	20.000	19.666	1.7	99	0.00	7.03- 7.23
4		beta-BHC	20.000	19.291	3.5	99	0.00	7.15- 7.35
5		Heptachlor	20.000	20.375	-1.9	100	0.00	7.53- 7.73
		----------	Amount	Calc.	%Drift		----------	
6		delta-BHC	20.000	19.085	4.6	96	0.00	7.72- 7.92
		----------	Amount	Calc.	%Drift		----------	
7		Aldrin	20.000	19.502	2.5	97	0.00	8.04- 8.24
8		Heptachlor Epoxide	20.000	19.332	3.3	96	0.00	8.90- 9.10
9		gamma-Chlordane	20.000	19.275	3.6	98	0.00	9.15- 9.35
10		alpha-Chlordane	20.000	19.707	1.5	102	0.00	9.39- 9.59
11		Endosulfan I	20.000	19.421	2.9	98	-0.01	9.43- 9.63
12		4,4'-DDE	20.000	17.057	14.7	94	0.00	9.80-10.00
13		Dieldrin	20.000	19.478	2.6	97	0.00	9.91-10.11
14		Endrin	20.000	19.347	3.3	96	0.00	10.47-10.67
15		4,4'-DDD	20.000	19.872	0.6	102	0.00	10.66-10.86
16		Endosulfan II	20.000	20.378	-1.9	103	0.00	10.75-10.95
		----------	Amount	Calc.	%Drift		----------	
17		4,4'-DDT	20.000	18.048	9.8	90	0.00	11.10-11.30
		----------	Amount	Calc.	%Drift		----------	
18		Endrin Aldehyde	20.000	20.442	-2.2	106	0.00	11.24-11.44
19		Endosulfan Sulfate	20.000	20.365	-1.8	103	0.00	11.40-11.60
20		Methoxychlor	20.000	19.106	4.5	98	0.00	12.31-12.51
21		Endrin Ketone	20.000	20.903	-4.5	106	-0.01	12.51-12.71
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
27	L1	Chlordane-F		----------NA----------				
28	H	Toxaphene		----------NA----------				
29	S	Decachlorobiphenyl	20.000	21.514	-7.6	110	-0.02	14.78-14.98
*****		Signal #2 *****						
1	S	Tetrachloro-m-xylene	20.000	19.197	4.0	96	-0.01	5.20- 5.40

0035

Continuing Calibration Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample: GKK251-ECC245
Lab FileID: KK06398.D

			Amount	Calc.	%Drift			
2		alpha-BHC	20.000	19.291	3.5	97	-0.01	6.67- 6.87
3		gamma-BHC (Lindane)	20.000	19.564	2.2	98	-0.01	7.29- 7.49
4		beta-BHC	20.000	18.989	5.1	97	-0.01	8.42- 8.62
5		Heptachlor	20.000	21.002	-5.0	103	-0.01	7.59- 7.79
			Amount	Calc.	%Drift			
6		delta-BHC	20.000	18.832	5.8	97	-0.01	8.78- 8.98
			Amount	Calc.	%Drift			
7		Aldrin	20.000	19.519	2.4	96	-0.01	8.00- 8.20
8		Heptachlor Epoxide	20.000	20.142	-0.7	101	-0.01	9.01- 9.21
9		gamma-Chlordane	20.000	19.954	0.2	102	-0.01	9.49- 9.69
10		alpha-Chlordane	20.000	20.051	-0.3	102	-0.01	9.57- 9.77
11		Endosulfan I	20.000	20.289	-1.4	100	-0.01	9.41- 9.61
			Amount	Calc.	%Drift			
12		4,4'-DDE	20.000	18.613	6.9	96	0.00	9.72- 9.92
			Amount	Calc.	%Drift			
13		Dieldrin	20.000	19.802	1.0	98	-0.01	9.96-10.16
14		Endrin	20.000	19.580	2.1	97	-0.01	10.27-10.47
15		4,4'-DDD	20.000	20.560	-2.8	106	-0.01	10.91-11.11
16		Endosulfan II	20.000	20.460	-2.3	101	-0.01	10.99-11.19
			Amount	Calc.	%Drift			
17		4,4'-DDT	20.000	18.559	7.2	96	-0.01	11.13-11.33
			Amount	Calc.	%Drift			
18		Endrin Aldehyde	20.000	20.065	-0.3	102	-0.01	11.54-11.74
19		Endosulfan Sulfate	20.000	20.987	-4.9	104	-0.02	11.96-12.16
			Amount	Calc.	%Drift			
20		Methoxychlor	20.000	19.465	2.7	102	0.00	11.92-12.12
			Amount	Calc.	%Drift			
21		Endrin Ketone	20.000	20.740	-3.7	108	-0.02	12.57-12.77
22	L1	Chlordane-A		----------NA----------				
23	L1	Chlordane-B		----------NA----------				
24	L1	Chlordane-C		----------NA----------				
25	L1	Chlordane-D		----------NA----------				
26	L1	Chlordane-E		----------NA----------				
27	L1	Chlordane-F		----------NA----------				
28	H	Toxaphene		----------NA----------				
29	S	Decachlorobiphenyl	20.000	20.695	-3.5	108	-0.02	13.92-14.12

(#) = Out of Range SPCC's out = 0 CCC's out = 0
KK06220.D 8081A.M Wed Mar 02 08:01:28 2005

0096

DDT/Endrin Breakdown Check

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample:	GKK245-DDT	**Injection Date:**	02/16/05
Lab File ID:	KK06216.D	**Injection Time:**	11:09
Instrument ID:	GCKK		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	13323	37860
4,4'-DDE	4935	9971
4,4'-DDT	320505	639927
DDT Breakdown [a]	5.4 %	7 %
Endrin aldehyde	0	0
Endrin ketone	17893	29626
Endrin	470937	1052664
Endrin Breakdown [b]	3.7 %	2.7 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GKK245-IC245	KK06218.D	02/16/05	13:01	01:52	Initial cal 5
GKK245-IC245	KK06219.D	02/16/05	13:22	02:14	Initial cal 10
GKK245-IC245	KK06220.D	02/16/05	13:44	02:35	Initial cal 20
GKK245-ICC245	KK06221.D	02/16/05	14:05	02:57	Initial cal 40
GKK245-IC245	KK06222.D	02/16/05	14:27	03:18	Initial cal 60
GKK245-IC245	KK06223.D	02/16/05	14:48	03:39	Initial cal 80
GKK245-IC245	KK06224.D	02/16/05	15:09	04:01	Initial cal 500
GKK245-IC245	KK06225.D	02/16/05	15:31	04:22	Initial cal 200
GKK245-ICV245	KK06226.D	02/16/05	15:52	04:44	Initial cal verification 40
OP12511-BS	KK06227.D	02/16/05	16:17	05:08	Blank Spike
OP12511-MB	KK06228.D	02/16/05	16:38	05:30	Method Blank
GKK245-CC245	KK06230.D	02/16/05	17:24	06:16	Continuing cal 40
F29734-6	KK06231.D	02/16/05	17:45	06:37	(used for QC only; not part of job F29983)
OP12511-MS	KK06232.D	02/16/05	18:07	06:58	Matrix Spike
OP12511-MSD	KK06233.D	02/16/05	18:28	07:20	Matrix Spike Duplicate
GKK245-ECC245	KK06234.D	02/16/05	18:50	07:41	Ending cal 20

DDT/Endrin Breakdown Check

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample:	GKK251-DDT	**Injection Date:**	03/01/05
Lab File ID:	KK06381.D	**Injection Time:**	12:10
Instrument ID:	GCKK		

Compound	Response Signal 1	Response Signal 2
4,4'-DDD	24918	58028
4,4'-DDE	4312	7622
4,4'-DDT	294950	616590
DDT Breakdown [a]	9 %	9.6 %
Endrin aldehyde	17013	25965
Endrin ketone	34622	54159
Endrin	439192	981806
Endrin Breakdown [b]	10.5 %	7.5 %

(a) Calculated as: (DDD + DDE) / (DDD + DDE + DDT) x 100
(b) Calculated as: (Endrin Aldehyde + Endrin Ketone) / (Endrin Aldehyde + Endrin Ketone + Endrin) x 100

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
GKK251-CC245	KK06382.D	03/01/05	12:46	00:36	Continuing cal 40
GKK251-CC245	KK06383.D	03/01/05	13:07	00:58	Continuing cal 500
GKK251-CC245	KK06384.D	03/01/05	13:28	01:19	Continuing cal 200
OP12576-LBS	KK06385.D	03/01/05	13:50	01:40	Blank Spike
OP12576-LB	KK06386.D	03/01/05	14:11	02:02	Leachate Blank
F29974-1	KK06387.D	03/01/05	14:33	02:23	(used for QC only; not part of job F29983)
OP12576-MS	KK06388.D	03/01/05	14:54	02:45	Matrix Spike
OP12576-MSD	KK06389.D	03/01/05	15:16	03:06	Matrix Spike Duplicate
GKK251-CC245	KK06390.D	03/01/05	15:37	03:27	Continuing cal 40
OP12574-BS	KK06391.D	03/01/05	15:58	03:49	Blank Spike
OP12574-MB	KK06392.D	03/01/05	16:22	04:13	Method Blank
ZZZZZZ	KK06393.D	03/01/05	16:44	04:34	(unrelated sample)
F29983-1	KK06394.D	03/01/05	17:05	04:55	CEF-21-GW-09S-01
OP12574-MS	KK06395.D	03/01/05	17:26	05:17	Matrix Spike
OP12574-MSD	KK06396.D	03/01/05	17:48	05:38	Matrix Spike Duplicate
F29983-2	KK06397.D	03/01/05	18:09	06:00	CEF-21-GW-09S-DU01
GKK251-ECC245	KK06398.D	03/01/05	18:31	06:21	Ending cal 20

Semivolatile Surrogate Recovery Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Method: SW846 8081A **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
F29983-1	KK06394.D	91.0	75.0
F29983-2	KK06397.D	85.0	71.0
OP12574-BS	KK06391.D	95.0	104.0
OP12574-MB	KK06392.D	93.0	98.0
OP12574-MS	KK06395.D	92.0	84.0
OP12574-MSD	KK06396.D	93.0	78.0

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	60-138%
S2 = Decachlorobiphenyl	31-148%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Check Std:	GKK251-CC245	**Injection Date:**	03/01/05
Lab File ID:	KK06390.D	**Injection Time:**	15:37
Instrument ID:	GCKK	**Method:**	SW846 8081A

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	5.34	5.29	14.86	14.00

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP12574-BS	KK06391.D	03/01/05	15:58	5.34		14.86	
OP12574-MB	KK06392.D	03/01/05	16:22	5.34		14.86	
ZZZZZZ	KK06393.D	03/01/05	16:44	5.34		14.86	
F29983-1	KK06394.D	03/01/05	17:05	5.34		14.86	
OP12574-MS	KK06395.D	03/01/05	17:26	5.34		14.86	
OP12574-MSD	KK06396.D	03/01/05	17:48	5.34		14.86	
F29983-2	KK06397.D	03/01/05	18:09	5.34		14.86	
GKK251-ECC245	KK06398.D	03/01/05	18:31	5.34	5.29	14.86	14.00

Surrogate Compounds

S1 = Tetrachloro-m-xylene
S2 = Decachlorobiphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Method Blank Summary

Job Number: F29983
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Site 21

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12574-MB	KK06392.D	1	03/01/05	AA	02/25/05	OP12574	GKK251

The QC reported here applies to the following samples: **Method:** SW846 8081A

F29983-1, F29983-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12789-03-6	Chlordane	ND	0.50	0.25	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	93%	60-138%
2051-24-3	Decachlorobiphenyl	98%	31-148%

Instrument Performance Check (BFB)

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: VN123-BFB
Lab File ID: N0002684.D
Instrument ID: GCMSN
Injection Date: 02/28/05
Injection Time: 10:49

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	23653	35.0	Pass
75	30.0 - 60.0% of mass 95	26106	38.6	Pass
95	Base peak, 100% relative abundance	67637	100.0	Pass
96	5.0 - 9.0% of mass 95	5183	7.7	Pass
173	Less than 2.0% of mass 174	542	0.8 (0.95) [a]	Pass
174	50.0 - 100.0% of mass 95	56898	84.1	Pass
175	5.0 - 9.0% of mass 174	4212	6.2 (7.4) [a]	Pass
176	95.0 - 101.0% of mass 174	55533	82.1 (97.6) [a]	Pass
177	5.0 - 9.0% of mass 176	3787	5.6 (6.8) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VN123-IC123	N0002685.D	02/28/05	13:01	02:12	Initial cal 1
VN123-IC123	N0002686.D	02/28/05	13:29	02:40	Initial cal 5
VN123-IC123	N0002687.D	02/28/05	13:56	03:07	Initial cal 20
VN123-ICC123	N0002688.D	02/28/05	14:24	03:35	Initial cal 40
VN123-IC123	N0002689.D	02/28/05	14:51	04:02	Initial cal 70
VN123-IC123	N0002690.D	02/28/05	15:19	04:30	Initial cal 100
VN123-ICV123	N0002691.D	02/28/05	15:55	05:06	Initial cal verification 40
VN123-BS	N0002692.D	02/28/05	16:24	05:35	Blank Spike
VN123-MB	N0002693.D	02/28/05	16:52	06:03	Method Blank
ZZZZZZ	N0002694.D	02/28/05	17:19	06:30	(unrelated sample)
F30044-1	N0002695.D	02/28/05	17:46	06:57	(used for QC only; not part of job F29984)
F30044-1MS	N0002696.D	02/28/05	18:13	07:24	Matrix Spike
F30044-1MSD	N0002697.D	02/28/05	18:41	07:52	Matrix Spike Duplicate
ZZZZZZ	N0002699.D	02/28/05	19:35	08:46	(unrelated sample)
ZZZZZZ	N0002701.D	02/28/05	20:30	09:41	(unrelated sample)
ZZZZZZ	N0002702.D	02/28/05	20:57	10:08	(unrelated sample)
ZZZZZZ	N0002703.D	02/28/05	21:24	10:35	(unrelated sample)
ZZZZZZ	N0002704.D	02/28/05	21:52	11:03	(unrelated sample)
ZZZZZZ	N0002705.D	02/28/05	22:19	11:30	(unrelated sample)

Initial Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: VN123-ICC123
Lab FileID: N0002688.D

Response Factor Report MSVOA8

Method : C:\MSDCHEM\2\METHODS\0228AP9.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Tue Mar 01 08:08:18 2005
Response via : Initial Calibration

Calibration Files
1 =N0002685.D 2 =N0002686.D 3 =N0002687.D 4 =N0002688.D
5 =N0002689.D 6 =N0002690.D

		Compound	1	2	3	4	5	6	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------							
2)		Dichlorodifluoromet	0.199	0.257	0.234	0.240	0.240	0.244	0.235	8.29
3)	P	Chloromethane	0.678	0.775	0.731	0.732	0.724	0.734	0.729	4.27
4)	C	Vinyl Chloride	0.336	0.412	0.390	0.412	0.405	0.413	0.395	7.61
5)		Bromomethane	0.102	0.099	0.071	0.059	0.049	0.048	0.071	33.49
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9948								
		Response Ratio = 0.00000 + 0.06513 *A + -0.00898 *A^2								
6)		Chloroethane	0.148	0.169	0.147	0.141	0.115	0.095	0.136	19.58
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9995								
		Response Ratio = 0.00000 + 0.16600 *A + -0.03581 *A^2								
7)		Trichlorofluorometh	0.230	0.271	0.240	0.249	0.235	0.223	0.241	7.15
8)		Ethyl Ether	0.282	0.273	0.265	0.259	0.242	0.236	0.259	6.78
9)		1,2-Dichlorotrifluo	0.243	0.427	0.426	0.396	0.305	0.388	0.364	20.40
10)	C	1,1-Dichloroethene	0.559	0.721	0.706	0.690	0.664	0.653	0.665	8.73
11)		Freon 113	0.254	0.294	0.285	0.284	0.276	0.270	0.277	5.07
12)		Carbon Disulfide	0.893	0.986	0.992	0.976	0.961	0.945	0.959	3.83
13)		Iodomethane	0.464	0.499	0.504	0.492	0.488	0.499	0.491	2.88
14)		Acrolein	0.024	0.024	0.022	0.016	0.016	0.022	0.021	18.28
15)		Allyl chloride	0.827	0.803	0.716	0.816	0.827	0.816	0.801	5.28
16)		Methylene Chloride	0.852	0.806	0.788	0.763	0.750	0.763	0.787	4.80
17)		Acetone	0.368	0.270	0.262	0.273	0.256	0.273	0.284	14.72
18)		Methyl acetate	0.529	0.489	0.502	0.481	0.485	0.492	0.496	3.51
19)		trans-1,2-Dichloroe	0.632	0.694	0.692	0.667	0.661	0.642	0.665	3.85
20)		Hexane	0.494	0.495	0.496	0.478	0.475	0.455	0.482	3.35
21)		Methyl Tert Butyl E	0.665	0.679	0.694	0.675	0.679	0.693	0.681	1.62
22)		Acetonitrile	0.119	0.085	0.079	0.086	0.086	0.087	0.090	16.03
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9995								
		Response Ratio = 0.00000 + 0.08672 *A								
23)		Di-isopropyl ether	1.712	1.735	1.808	1.778	1.782	1.783	1.766	2.01
24)		Chloroprene	0.623	0.688	0.651	0.749	0.748	0.718	0.696	7.46
25)	P	1,1-Dichloroethane	0.713	0.793	0.791	0.763	0.755	0.736	0.759	4.12
26)		Acrylonitrile	0.223	0.227	0.232	0.231	0.232	0.238	0.231	2.16
27)		ETBE	1.471	1.450	1.493	1.409	1.364	1.306	1.416	5.00
28)		Vinyl acetate	0.956	1.028	1.077	1.068	1.056	1.019	1.034	4.29
29)		cis-1,2-Dichloroeth	0.274	0.304	0.313	0.303	0.299	0.297	0.298	4.38
30)		2,2-Dichloropropane	0.269	0.296	0.302	0.304	0.302	0.304	0.296	4.57
31)		Bromochloromethane	0.137	0.144	0.149	0.143	0.142	0.140	0.143	2.85
32)		Cyclohexane	0.809	0.891	0.918	0.899	0.889	0.866	0.879	4.34
33)	C	Chloroform	0.411	0.444	0.444	0.428	0.424	0.416	0.428	3.27
34)		Tetrahydrofuran	0.333	0.191	0.188	0.175	0.182	0.185	0.209	29.09
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9993								
		Response Ratio = 0.00000 + 0.18359 *A								

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Initial Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: VN123-ICC123
Lab FileID: N0002688.D

35)	S	Dibromofluoromethan	0.232	0.232	0.232	0.227	0.224	0.220	0.228	2.24
36)		Carbon Tetrachlorid	0.293	0.321	0.330	0.328	0.332	0.330	0.323	4.60
37)		1,1,1-Trichloroetha	0.304	0.338	0.342	0.337	0.342	0.339	0.334	4.39
38)		2-Butanone	0.423	0.358	0.367	0.372	0.368	0.376	0.377	6.12
39)		1,1-Dichloropropene	0.277	0.332	0.337	0.331	0.336	0.330	0.324	7.10
40)		Propionitrile	0.103	0.094	0.086	0.090	0.088	0.085	0.091	7.14
41)		Methacrylonitrile	0.396	0.369	0.344	0.361	0.344	0.324	0.356	7.04
42)		Benzene	1.091	1.166	1.155	1.055	0.931	0.823	1.037	12.98
43)		TAME	0.860	0.815	0.868	0.857	0.839	0.833	0.845	2.38
44)	S	1,2-Dichloroethane-	0.325	0.326	0.318	0.319	0.318	0.321	0.321	1.14
45)		1,2-Dichloroethane	0.533	0.527	0.535	0.521	0.519	0.515	0.525	1.53
46)		Trichloroethene	0.245	0.258	0.261	0.258	0.254	0.245	0.253	2.82
47)		Methylcyclohexane	0.458	0.484	0.487	0.491	0.489	0.474	0.481	2.59
48)		Dibromomethane	0.165	0.168	0.169	0.163	0.163	0.164	0.166	1.68
49)	C	1,2-Dichloropropane	0.435	0.461	0.464	0.451	0.449	0.442	0.450	2.44
50)		Bromodichloromethan	0.283	0.289	0.306	0.301	0.310	0.311	0.300	3.93
51)		Methyl methacrylate	0.567	0.478	0.461	0.514	0.529	0.529	0.513	7.46
52)		2-Chloroethyl vinyl	0.140	0.144	0.156	0.149	0.149	0.143	0.147	3.81
53)		cis-1,3-Dichloropro	0.366	0.408	0.422	0.418	0.427	0.432	0.412	5.89
54)	I	Chlorobenzene-d5	----------ISTD----------							
55)	S	Toluene-d8	1.246	1.250	1.256	1.287	1.344	1.413	1.299	5.14
56)	C	Toluene	1.419	1.538	1.551	1.565	1.625	1.671	1.561	5.52
57)		2-Nitropropane	0.186	0.178	0.205	0.208	0.227	0.246	0.208	12.08
58)		4-Methyl-2-pentanon	0.930	0.915	0.954	0.940	0.964	1.004	0.951	3.27
59)		trans-1,3-Dichlorop	0.440	0.487	0.524	0.530	0.556	0.580	0.519	9.64
60)		Tetrachloroethene	0.362	0.383	0.398	0.414	0.430	0.433	0.403	6.88
61)		Ethyl methacrylate	0.407	0.420	0.431	0.490	0.525	0.558	0.472	13.15
62)		1,1,2-Trichloroetha	0.281	0.297	0.296	0.299	0.308	0.325	0.301	4.84
63)		Dibromochloromethan	0.321	0.353	0.385	0.396	0.429	0.454	0.390	12.51
64)		1,3-Dichloropropane	0.545	0.565	0.577	0.577	0.614	0.650	0.588	6.46
65)		1,2-Dibromoethane	0.352	0.368	0.380	0.383	0.408	0.435	0.388	7.66
66)		2-hexanone	0.652	0.627	0.668	0.665	0.683	0.724	0.670	4.84
67)		1-Chlorohexane	1.673	0.475	0.479	0.496	0.527	0.537	0.698	68.56
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9979								
		Response Ratio = 0.00000 + 0.52870 *A								
68)	C	Ethylbenzene	1.673	1.703	1.697	1.669	1.672	1.659	1.679	1.03
69)	P	Chlorobenzene	1.008	1.049	1.066	1.053	1.062	1.064	1.050	2.08
70)		1,1,1,2-Tetrachloro	0.371	0.394	0.408	0.420	0.442	0.467	0.417	8.25
71)		m,p-Xylene	1.141	1.274	1.311	1.311	1.315	1.298	1.275	5.30
72)		o-Xylene	1.176	1.292	1.370	1.410	1.473	1.524	1.374	9.18
73)		Styrene	0.825	0.955	1.061	1.087	1.130	1.176	1.039	12.37
74)	P	Bromoform	0.210	0.227	0.271	0.279	0.306	0.330	0.271	16.83
75)		Isopropylbenzene	1.391	1.620	1.697	1.742	1.822	1.867	1.690	10.11
76)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
77)	S	4-Bromofluorobenzen	0.815	0.832	0.827	0.828	0.840	0.844	0.831	1.22
78)		cis-1,4-Dichloro-2-	0.502	0.479	0.451	0.502	0.524	0.522	0.497	5.54
79)		n-Propylbenzene	3.095	3.565	3.608	3.657	3.698	3.519	3.524	6.23
80)		Bromobenzene	0.784	0.830	0.862	0.846	0.848	0.812	0.830	3.45
81)	P	1,1,2,2-Tetrachloro	0.903	0.923	0.939	0.911	0.906	0.874	0.909	2.39
82)		1,3,5-Trimethylbenz	2.239	2.585	2.702	2.749	2.775	2.648	2.616	7.54
83)		2-Chlorotoluene	2.245	2.483	2.558	2.572	2.573	2.461	2.482	5.05
84)		trans-1,4-Dichloro-	0.486	0.458	0.460	0.485	0.494	0.476	0.477	3.07
85)		1,2,3-Trichloroprop	0.233	0.251	0.259	0.262	0.258	0.249	0.252	4.16
86)		Cyclohexanone	0.066	0.058	0.063	0.065	0.069	0.069	0.065	6.60
87)		4-Chlorotoluene	1.948	2.118	2.171	2.187	2.227	2.175	2.138	4.64
88)		tert-Butylbenzene	1.147	1.323	1.371	1.399	1.433	1.393	1.344	7.67
89)		1,2,4-Trimethylbenz	2.284	2.633	2.740	2.756	2.679	2.477	2.595	7.03

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Initial Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: VN123-ICC123
Lab FileID: N0002688.D

90)		Pentachloroethane	0.400	0.453	0.433	0.491	0.498	0.477	0.459	8.20
91)		sec-Butylbenzene	2.944	3.500	3.615	3.690	3.710	3.579	3.506	8.15
92)		4-Isopropyltoluene	2.234	2.749	2.843	2.889	2.958	2.857	2.755	9.59
93)		1,3-Dichlorobenzene	1.470	1.520	1.578	1.565	1.599	1.559	1.548	3.01
94)		1,4-Dichlorobenzene	1.509	1.619	1.624	1.577	1.603	1.556	1.581	2.77
95)		n-Butylbenzene	1.319	1.531	1.607	1.646	1.686	1.614	1.567	8.41
96)		Benzyl Chloride	0.328	0.372	0.447	0.454	0.476	0.477	0.426	14.42
97)		1,2-Dichlorobenzene	1.474	1.522	1.595	1.590	1.599	1.571	1.558	3.24
98)		1,2-Dibromo-3-Chlor	0.153	0.155	0.157	0.150	0.163	0.170	0.158	4.74
99)		Hexachlorobutadiene	0.491	0.531	0.522	0.525	0.551	0.540	0.527	3.85
100)		1,2,4-Trichlorobenz	1.090	1.148	1.179	1.197	1.253	1.229	1.183	4.95
101)		Naphthalene	3.297	3.238	3.519	3.526	3.635	3.642	3.476	4.92
102)		1,2,3-Trichlorobenz	1.114	1.118	1.143	1.153	1.185	1.174	1.148	2.53
103)	I	Tert Butyl Alcohol-d1 ----------ISTD----------								
104)		Ethanol	0.362	0.169	0.177	0.162	0.151	0.168	0.198	40.71
		---- Linear regr., Force(0,0) ---- Coefficient = 0.9950								
		Response Ratio = 0.00000 + 0.16256 *A								
105)		Tert Butyl Alcohol	1.642	1.539	1.582	1.518	1.537	1.563	1.564	2.83
106)		Isobutyl alcohol	0.524	0.484	0.490	0.544	0.537	0.526	0.518	4.76
107)		Tert Amyl Alcohol	1.214	1.170	1.279	1.288	1.258	1.276	1.247	3.69
108)		1,4-Dioxane	0.100	0.094	0.102	0.104	0.107	0.106	0.102	4.50

(#) = Out of Range

0228AP9.M Tue Mar 01 08:16:07 2005

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Volatile Surrogate Recovery Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Method: SW846 8260B **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
F29984-1	N0002719.D	112.0	106.0	96.0	115.0
F29984-2	N0002720.D	112.0	106.0	97.0	116.0
F29984-1MS	N0002721.D	111.0	106.0	95.0	115.0
F29984-1MSD	N0002722.D	110.0	106.0	94.0	114.0
VN124-BS	N0002709.D	111.0	104.0	97.0	115.0
VN124-MB	N0002710.D	110.0	105.0	96.0	117.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	86-115%
S2 = 1,2-Dichloroethane-D4	73-126%
S3 = Toluene-D8	86-112%
S4 = 4-Bromofluorobenzene	83-119%

Instrument Performance Check (BFB)

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: VN124-BFB
Lab File ID: N0002706.D
Instrument ID: GCMSN
Injection Date: 03/01/05
Injection Time: 08:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	28122	38.9	Pass
75	30.0 - 60.0% of mass 95	28578	39.5	Pass
95	Base peak, 100% relative abundance	72296	100.0	Pass
96	5.0 - 9.0% of mass 95	4736	6.6	Pass
173	Less than 2.0% of mass 174	440	0.61 (0.81) [a]	Pass
174	50.0 - 100.0% of mass 95	54261	75.1	Pass
175	5.0 - 9.0% of mass 174	4218	5.8 (7.8) [a]	Pass
176	95.0 - 101.0% of mass 174	52821	73.1 (97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	3506	4.8 (6.6) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VN124-CC123	N0002708.D	03/01/05	09:52	00:59	Continuing cal 40
VN124-BS	N0002709.D	03/01/05	10:27	01:34	Blank Spike
VN124-MB	N0002710.D	03/01/05	10:54	02:01	Method Blank
ZZZZZZ	N0002711.D	03/01/05	11:22	02:29	(unrelated sample)
ZZZZZZ	N0002712.D	03/01/05	11:49	02:56	(unrelated sample)
ZZZZZZ	N0002713.D	03/01/05	12:16	03:23	(unrelated sample)
ZZZZZZ	N0002714.D	03/01/05	12:43	03:50	(unrelated sample)
ZZZZZZ	N0002715.D	03/01/05	13:11	04:18	(unrelated sample)
ZZZZZZ	N0002716.D	03/01/05	13:38	04:45	(unrelated sample)
ZZZZZZ	N0002717.D	03/01/05	14:05	05:12	(unrelated sample)
ZZZZZZ	N0002718.D	03/01/05	14:32	05:39	(unrelated sample)
F29984-1	N0002719.D	03/01/05	15:00	06:07	CEF-293-GW-23S-01
F29984-2	N0002720.D	03/01/05	15:27	06:34	CEF-293-GW-DU01
F29984-1MS	N0002721.D	03/01/05	15:55	07:02	Matrix Spike
F29984-1MSD	N0002722.D	03/01/05	16:22	07:29	Matrix Spike Duplicate
ZZZZZZ	N0002723.D	03/01/05	16:50	07:57	(unrelated sample)
ZZZZZZ	N0002724.D	03/01/05	17:17	08:24	(unrelated sample)
ZZZZZZ	N0002725.D	03/01/05	17:45	08:52	(unrelated sample)
ZZZZZZ	N0002726.D	03/01/05	18:12	09:19	(unrelated sample)
ZZZZZZ	N0002727.D	03/01/05	18:40	09:47	(unrelated sample)
ZZZZZZ	N0002729.D	03/01/05	19:35	10:42	(unrelated sample)
ZZZZZZ	N0002730.D	03/01/05	20:03	11:10	(unrelated sample)
ZZZZZZ	N0002731.D	03/01/05	20:31	11:38	(unrelated sample)

0126

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: VN124-CC123
Lab FileID: N0002708.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\2\DATA\030105\N0002708.D Vial: 1
Acq On : 1 Mar 2005 9:52 am Operator: nareshj
Sample : CC123-40 Inst : MSVOA8
Misc : ms4187,vn124,,,,, Multiplr: 1.00
MS Integration Params: HEAVY.P

Method : C:\MSDCHEM\2\METHODS\0228AP9.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624
Last Update : Tue Mar 01 08:08:18 2005
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	100	0.00	11.22
2		Dichlorodifluoromethane	0.235	0.244	-3.8	101	-0.01	4.46
3	P	Chloromethane	0.729	0.771	-5.8	105	-0.01	4.79
4	C	Vinyl Chloride	0.395	0.428	-8.4	104	0.00	5.00
			Amount	Calc.	%Drift			
5		Bromomethane	40.000	46.821	-17.1	113	0.00	5.63
6		Chloroethane	40.000	45.184	-13.0	107	0.00	5.87
			AvgRF	CCRF	%Dev			
7		Trichlorofluoromethane	0.241	0.288	-19.5	115	0.00	6.16
8		Ethyl Ether	0.259	0.268	-3.5	103	0.00	6.60
9		1,2-Dichlorotrifluoroetha	0.364	0.297	18.4	75	0.00	6.92
10	C	1,1-Dichloroethene	0.665	0.673	-1.2	97	0.00	6.99
11		Freon 113	0.277	0.305	-10.1	107	0.00	7.05
12		Carbon Disulfide	0.959	1.027	-7.1	105	0.00	7.11
13		Iodomethane	0.491	0.480	2.2	97	0.00	7.25
14		Acrolein	0.021	0.025	-19.0	153	0.00	7.48
15		Allyl chloride	0.801	0.871	-8.7	107	0.00	7.69
16		Methylene Chloride	0.787	0.832	-5.7	109	0.00	7.86
17		Acetone	0.284	0.319	-12.3	116	0.00	7.89
18		Methyl acetate	0.496	0.545	-9.9	113	0.00	8.04
19		trans-1,2-Dichloroethene	0.665	0.662	0.5	99	0.00	8.09
20		Hexane	0.482	0.499	-3.5	104	0.00	8.17
21		Methyl Tert Butyl Ether	0.681	0.728	-6.9	108	0.00	8.21
			Amount	Calc.	%Drift			
22		Acetonitrile	400.000	460.050	-15.0	116	-0.01	8.57
			AvgRF	CCRF	%Dev			
23		Di-isopropyl ether	1.766	1.949	-10.4	109	0.00	8.70
24		Chloroprene	0.696	0.751	-7.9	100	0.00	8.91
25	P	1,1-Dichloroethane	0.759	0.757	0.3	99	0.00	8.94
26		Acrylonitrile	0.231	0.256	-10.8	111	0.00	8.99
27		ETBE	1.416	1.467	-3.6	104	0.00	9.19
28		Vinyl acetate	1.034	1.165	-12.7	109	0.00	9.19
29		cis-1,2-Dichloroethene	0.298	0.292	2.0	96	0.00	9.66
30		2,2-Dichloropropane	0.296	0.316	-6.8	104	0.00	9.82
31		Bromochloromethane	0.143	0.142	0.7	99	0.00	9.92
32		Cyclohexane	0.879	0.941	-7.1	105	0.00	9.97
33	C	Chloroform	0.428	0.450	-5.1	105	0.00	9.97

0172

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: VN124-CC123
Lab FileID: N0002708.D

			Amount	Calc.	%Drift			
34		Tetrahydrofuran	40.000	43.307	-8.3	113	0.00	10.21

			AvgRF	CCRF	%Dev			
35	S	Dibromofluoromethane	0.228	0.246	-7.9	108	0.00	10.21
36		Carbon Tetrachloride	0.323	0.310	4.0	94	0.00	10.22
37		1,1,1-Trichloroethane	0.334	0.328	1.8	97	0.00	10.30
38		2-Butanone	0.377	0.422	-11.9	113	0.00	10.33
39		1,1-Dichloropropene	0.324	0.340	-4.9	102	0.00	10.43
40		Propionitrile	0.091	0.099	-8.8	110	0.00	10.72
41		Methacrylonitrile	0.356	0.399	-12.1	111	0.00	10.75
42		Benzene	1.037	1.038	-0.1	98	0.00	10.74
43		TAME	0.845	0.926	-9.6	108	0.00	10.82
44	S	1,2-Dichloroethane-d4	0.321	0.332	-3.4	104	0.00	10.89
45		1,2-Dichloroethane	0.525	0.526	-0.2	101	0.00	10.98
46		Trichloroethene	0.253	0.272	-7.5	105	0.00	11.43
47		Methylcyclohexane	0.481	0.520	-8.1	106	0.00	11.46
48		Dibromomethane	0.166	0.180	-8.4	110	0.00	11.94
49	C	1,2-Dichloropropane	0.450	0.458	-1.8	101	0.00	12.05
50		Bromodichloromethane	0.300	0.320	-6.7	106	0.00	12.09
51		Methyl methacrylate	0.513	0.567	-10.5	110	0.00	12.19
52		2-Chloroethyl vinyl ether	0.147	0.154	-4.8	103	0.00	12.68
53		cis-1,3-Dichloropropene	0.412	0.454	-10.2	108	0.00	12.81
54	I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	14.79
55	S	Toluene-d8	1.299	1.278	1.6	101	0.00	13.03
56	C	Toluene	1.561	1.650	-5.7	107	0.00	13.09
57		2-Nitropropane	0.208	0.226	-8.7	110	0.00	13.34
58		4-Methyl-2-pentanone	0.951	1.036	-8.9	112	0.00	13.46
59		trans-1,3-Dichloropropene	0.519	0.566	-9.1	108	0.00	13.53
60		Tetrachloroethene	0.403	0.413	-2.5	101	0.00	13.56
61		Ethyl methacrylate	0.472	0.522	-10.6	108	0.00	13.62
62		1,1,2-Trichloroethane	0.301	0.317	-5.3	107	0.00	13.72
63		Dibromochloromethane	0.390	0.394	-1.0	101	0.00	13.95
64		1,3-Dichloropropane	0.588	0.614	-4.4	108	0.00	14.04
65		1,2-Dibromoethane	0.388	0.380	2.1	101	0.00	14.26
66		2-hexanone	0.670	0.749	-11.8	114	0.00	14.37

			Amount	Calc.	%Drift			
67		1-Chlorohexane	40.000	39.276	1.8	106	0.00	14.71

			AvgRF	CCRF	%Dev			
68	C	Ethylbenzene	1.679	1.768	-5.3	107	0.00	14.80
69	P	Chlorobenzene	1.050	1.123	-7.0	108	0.00	14.82
70		1,1,1,2-Tetrachloroethane	0.417	0.416	0.2	100	0.00	14.86
71		m,p-Xylene	1.275	1.391	-9.1	107	0.00	14.94
72		o-Xylene	1.374	1.499	-9.1	108	0.00	15.44
73		Styrene	1.039	1.142	-9.9	106	0.00	15.48
74	P	Bromoform	0.271	0.258	4.8	94	0.00	15.57
75		Isopropylbenzene	1.690	1.703	-0.8	99	0.00	15.76
76	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00	17.34
77	S	4-Bromofluorobenzene	0.831	0.960	-15.5	110	0.00	16.11
78		cis-1,4-Dichloro-2-butene	0.497	0.584	-17.5	110	0.00	16.14
79		n-Propylbenzene	3.524	4.165	-18.2	108	0.00	16.21
80		Bromobenzene	0.830	0.826	0.5	92	0.00	16.26
81	P	1,1,2,2-Tetrachloroethane	0.909	1.074	-18.2	111	0.00	16.28
82		1,3,5-Trimethylbenzene	2.616	2.917	-11.5	100	0.00	16.40
83		2-Chlorotoluene	2.482	2.940	-18.5	108	0.00	16.43
84		trans-1,4-Dichloro-2-Bute	0.477	0.563	-18.0	110	0.00	16.47

0173

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: VN124-CC123
Lab FileID: N0002708.D

85	1,2,3-Trichloropropane	0.252	0.281	-11.5	102	0.00	16.46
86	Cyclohexanone	0.065	0.075	-15.4	109	0.00	16.56
87	4-Chlorotoluene	2.138	2.492	-16.6	108	0.00	16.61
88	tert-Butylbenzene	1.344	1.595	-18.7	108	0.00	16.77
89	1,2,4-Trimethylbenzene	2.595	2.952	-13.8	101	0.00	16.84
90	Pentachloroethane	0.459	0.462	-0.7	89	0.00	16.85
91	sec-Butylbenzene	3.506	3.928	-12.0	101	0.00	16.97
92	4-Isopropyltoluene	2.755	3.117	-13.1	102	0.00	17.10
93	1,3-Dichlorobenzene	1.548	1.678	-8.4	101	0.00	17.27
94	1,4-Dichlorobenzene	1.581	1.719	-8.7	103	0.00	17.36
95	n-Butylbenzene	1.567	1.912	-22.0#	110	0.00	17.57
96	Benzyl Chloride	0.426	0.488	-14.6	102	0.00	17.61
97	1,2-Dichlorobenzene	1.558	1.718	-10.3	102	0.00	17.83
98	1,2-Dibromo-3-Chloropropa	0.158	0.183	-15.8	115	0.00	18.67
99	Hexachlorobutadiene	0.527	0.472	10.4	85	0.00	19.35
100	1,2,4-Trichlorobenzene	1.183	1.190	-0.6	94	0.00	19.42
101	Naphthalene	3.476	3.884	-11.7	104	0.00	19.82
102	1,2,3-Trichlorobenzene	1.148	1.141	0.6	94	0.00	20.04
103 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	106	0.00	8.17
	----------	Amount	Calc.	%Drift		----------	
104	Ethanol	800.000	797.186	0.4	106	0.00	6.82
	----------	AvgRF	CCRF	%Dev		----------	
105	Tert Butyl Alcohol	1.564	1.495	4.4	104	-0.01	8.27
106	Isobutyl alcohol	0.518	0.568	-9.7	110	0.00	10.82
107	Tert Amyl Alcohol	1.247	1.256	-0.7	103	0.00	10.98
108	1,4-Dioxane	0.102	0.099	2.9	101	0.00	12.30

(#) = Out of Range SPCC's out = 0 CCC's out = 0
N0002688.D 0228AP9.M Wed Mar 02 13:55:53 2005

0174

Method Blank Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN124-MB	N0002710.D	1	03/01/05	NJ	n/a	n/a	VN124

The QC reported here applies to the following samples: **Method:** SW846 8260B

F29984-1, F29984-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	5.0	ug/l	
71-43-2	Benzene	ND	1.0	0.50	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.50	ug/l	
75-25-2	Bromoform	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
75-00-3	Chloroethane	ND	2.0	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
75-15-0	Carbon disulfide	ND	2.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.50	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.50	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.5	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.5	ug/l	
74-83-9	Methyl bromide	ND	2.0	1.0	ug/l	
74-87-3	Methyl chloride	ND	2.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.5	ug/l	
100-42-5	Styrene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	3.0	1.0	ug/l	

0099

Method Blank Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN124-MB	N0002710.D	1	03/01/05	NJ	n/a	n/a	VN124

The QC reported here applies to the following samples: **Method:** SW846 8260B

F29984-1, F29984-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	110%	86-115%
17060-07-0	1,2-Dichloroethane-D4	105%	73-126%
2037-26-5	Toluene-D8	96%	86-112%
460-00-4	4-Bromofluorobenzene	117%	83-119%

0100

Blank Spike Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN124-BS	N0002709.D	1	03/01/05	NJ	n/a	n/a	VN124

The QC reported here applies to the following samples: **Method:** SW846 8260B

F29984-1, F29984-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	141	113	44-142
71-43-2	Benzene	25	26.8	107	80-120
75-27-4	Bromodichloromethane	25	26.7	107	75-120
75-25-2	Bromoform	25	21.2	85	60-129
108-90-7	Chlorobenzene	25	27.1	108	82-112
75-00-3	Chloroethane	25	25.7	103	67-148
67-66-3	Chloroform	25	27.0	108	78-118
75-15-0	Carbon disulfide	25	26.0	104	65-147
56-23-5	Carbon tetrachloride	25	26.4	106	69-137
75-34-3	1,1-Dichloroethane	25	26.2	105	75-117
75-35-4	1,1-Dichloroethylene	25	26.9	108	67-134
107-06-2	1,2-Dichloroethane	25	23.9	96	68-121
78-87-5	1,2-Dichloropropane	25	25.4	102	78-122
124-48-1	Dibromochloromethane	25	23.5	94	68-118
156-59-2	cis-1,2-Dichloroethylene	25	25.0	100	81-120
10061-01-5	cis-1,3-Dichloropropene	25	25.5	102	73-115
156-60-5	trans-1,2-Dichloroethylene	25	26.1	104	74-125
10061-02-6	trans-1,3-Dichloropropene	25	25.7	103	69-115
100-41-4	Ethylbenzene	25	27.4	110	82-115
591-78-6	2-Hexanone	125	123	98	60-125
108-10-1	4-Methyl-2-pentanone	125	118	94	61-128
74-83-9	Methyl bromide	25	30.1	120	60-165
74-87-3	Methyl chloride	25	23.5	94	58-152
75-09-2	Methylene chloride	25	26.5	106	66-125
78-93-3	Methyl ethyl ketone	125	131	105	58-127
100-42-5	Styrene	25	27.2	109	58-125
71-55-6	1,1,1-Trichloroethane	25	26.2	105	78-132
79-34-5	1,1,2,2-Tetrachloroethane	25	27.4	110	67-119
79-00-5	1,1,2-Trichloroethane	25	24.8	99	74-115
127-18-4	Tetrachloroethylene	25	25.2	101	75-126
108-88-3	Toluene	25	27.0	108	81-114
79-01-6	Trichloroethylene	25	27.6	110	80-115
75-01-4	Vinyl chloride	25	24.2	97	70-151
1330-20-7	Xylene (total)	75	82.9	111	81-118

0104

Blank Spike Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN124-BS	N0002709.D	1	03/01/05	NJ	n/a	n/a	VN124

The QC reported here applies to the following samples: **Method:** SW846 8260B

F29984-1, F29984-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	111%	86-115%
17060-07-0	1,2-Dichloroethane-D4	104%	73-126%
2037-26-5	Toluene-D8	97%	86-112%
460-00-4	4-Bromofluorobenzene	115%	83-119%

0105

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F29984-1MS	N0002721.D	1	03/01/05	NJ	n/a	n/a	VN124
F29984-1MSD	N0002722.D	1	03/01/05	NJ	n/a	n/a	VN124
F29984-1	N0002719.D	1	03/01/05	NJ	n/a	n/a	VN124

The QC reported here applies to the following samples: **Method:** SW846 8260B

F29984-1, F29984-2

CAS No.	Compound	F29984-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	25 U		125	86.9	70	87.9	70	1	45-127/15
71-43-2	Benzene	1.0 U		25	26.2	105	25.8	103	2	72-125/7
75-27-4	Bromodichloromethane	1.0 U		25	25.9	104	25.8	103	0	72-120/8
75-25-2	Bromoform	1.0 U		25	20.7	83	20.5	82	1	55-127/11
108-90-7	Chlorobenzene	1.0 U		25	26.3	105	25.7	103	2	79-113/7
75-00-3	Chloroethane	2.0 U		25	27.3	109	25.6	102	6	56-164/14
67-66-3	Chloroform	1.0 U		25	26.3	105	26.6	106	1	75-120/8
75-15-0	Carbon disulfide	2.0 U		25	25.4	102	25.6	102	1	60-151/12
56-23-5	Carbon tetrachloride	1.0 U		25	24.9	100	25.2	101	1	56-145/12
75-34-3	1,1-Dichloroethane	1.0 U		25	25.8	103	25.5	102	1	70-122/10
75-35-4	1,1-Dichloroethylene	1.0 U		25	26.0	104	26.0	104	0	61-137/15
107-06-2	1,2-Dichloroethane	1.0 U		25	23.5	94	23.6	94	0	64-124/7
78-87-5	1,2-Dichloropropane	1.0 U		25	24.9	100	24.5	98	2	74-123/8
124-48-1	Dibromochloromethane	1.0 U		25	22.4	90	22.3	89	0	63-119/9
156-59-2	cis-1,2-Dichloroethylene	1.0 U		25	24.1	96	24.3	97	1	74-125/9
10061-01-5	cis-1,3-Dichloropropene	1.0 U		25	24.0	96	24.0	96	0	65-112/10
156-60-5	trans-1,2-Dichloroethylene	1.0 U		25	25.1	100	25.1	100	0	70-127/11
10061-02-6	trans-1,3-Dichloropropene	1.0 U		25	24.4	98	24.0	96	2	59-116/11
100-41-4	Ethylbenzene	1.0 U		25	26.4	106	26.1	104	1	73-119/8
591-78-6	2-Hexanone	5.0 U		125	116	93	115	92	1	54-131/11
108-10-1	4-Methyl-2-pentanone	5.0 U		125	122	98	120	96	2	57-136/11
74-83-9	Methyl bromide	2.0 U		25	28.0	112	27.2	109	3	52-172/16
74-87-3	Methyl chloride	2.0 U		25	22.9	92	22.7	91	1	53-155/19
75-09-2	Methylene chloride	5.0 U		25	26.2	105	25.8	103	2	61-129/11
78-93-3	Methyl ethyl ketone	5.0 U		125	104	83	104	83	0	51-128/10
100-42-5	Styrene	1.0 U		25	26.0	104	25.6	102	2	64-124/11
71-55-6	1,1,1-Trichloroethane	1.0 U		25	25.2	101	25.0	100	1	72-133/8
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		25	27.1	108	27.9	112	3	64-120/10
79-00-5	1,1,2-Trichloroethane	1.0 U		25	24.3	97	24.4	98	0	72-116/9
127-18-4	Tetrachloroethylene	1.0 U		25	24.1	96	23.7	95	2	70-126/9
108-88-3	Toluene	1.0 U		25	25.9	104	25.3	101	2	67-123/8
79-01-6	Trichloroethylene	1.0 U		25	26.7	107	26.7	107	0	73-117/10
75-01-4	Vinyl chloride	1.0 U		25	24.9	100	23.8	95	5	63-161/18
1330-20-7	Xylene (total)	3.0 U		75	79.2	106	78.2	104	1	73-122/7

011

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F29984-1MS	N0002721.D	1	03/01/05	NJ	n/a	n/a	VN124
F29984-1MSD	N0002722.D	1	03/01/05	NJ	n/a	n/a	VN124
F29984-1	N0002719.D	1	03/01/05	NJ	n/a	n/a	VN124

The QC reported here applies to the following samples: **Method:** SW846 8260B

F29984-1, F29984-2

CAS No.	Surrogate Recoveries	MS	MSD	F29984-1	Limits
1868-53-7	Dibromofluoromethane	111%	110%	112%	86-115%
17060-07-0	1,2-Dichloroethane-D4	106%	106%	106%	73-126%
2037-26-5	Toluene-D8	95%	94%	96%	86-112%
460-00-4	4-Bromofluorobenzene	115%	114%	115%	83-119%

0112

Volatile Internal Standard Area Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Check Std:	VN124-CC123	**Injection Date:**	03/01/05
Lab File ID:	N0002708.D	**Injection Time:**	09:52
Instrument ID:	GCMSN	**Method:**	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Check Std	1645102	11.22	1182222	14.79	622399	17.34	357230	8.17
Upper Limit [a]	3290204	11.72	2364444	15.29	1244798	17.84	714460	8.67
Lower Limit [b]	822551	10.72	591111	14.29	311200	16.84	178615	7.67

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VN124-BS	1655194	11.22	1205011	14.79	631546	17.34	335518	8.17
VN124-MB	1576493	11.22	1143400	14.79	568878	17.34	332003	8.17
ZZZZZZ	1525517	11.22	1104900	14.79	552937	17.34	311161	8.17
ZZZZZZ	1457120	11.22	1068069	14.79	530256	17.35	307462	8.17
ZZZZZZ	1430717	11.22	1055224	14.79	520546	17.34	304545	8.17
ZZZZZZ	1425732	11.22	1064641	14.79	533257	17.34	303730	8.17
ZZZZZZ	1544834	11.23	1139235	14.79	604814	17.34	320888	8.17
ZZZZZZ	1572700	11.22	1142466	14.79	566820	17.34	335416	8.17
ZZZZZZ	1546091	11.22	1126602	14.79	563991	17.34	331889	8.17
ZZZZZZ	1491866	11.23	1104795	14.79	572063	17.34	329449	8.18
F29984-1	1503221	11.22	1088110	14.79	545907	17.34	320288	8.17
F29984-2	1436972	11.22	1048889	14.79	519454	17.34	308558	8.17
F29984-1MS	1508275	11.22	1112866	14.79	584511	17.35	326002	8.17
F29984-1MSD	1539764	11.22	1148712	14.79	592089	17.34	338910	8.17
ZZZZZZ	1495820	11.22	1072509	14.79	539171	17.35	324573	8.17
ZZZZZZ	1430751	11.22	1040846	14.79	512684	17.35	316833	8.17
ZZZZZZ	1505088	11.22	1126015	14.79	584451	17.35	354072	8.17
ZZZZZZ	1544653	11.22	1138346	14.79	563216	17.35	347084	8.17
ZZZZZZ	1515883	11.22	1092671	14.79	561342	17.35	333253	8.17
ZZZZZZ	1521504	11.23	1080970	14.79	573774	17.35	349533	8.17
ZZZZZZ	1499745	11.22	1109912	14.79	563471	17.35	338184	8.17
ZZZZZZ	1491182	11.22	1094658	14.79	554014	17.35	345851	8.17

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Initial Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1167-ICC1167
Lab FileID: EE029584.D

Response Factor Report G1315B

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Wed Jan 26 14:14:56 2005
Response via : Initial Calibration

Calibration Files
L1 =EE029581.D L2 =EE029582.D L3 =EE029583.D L4 =EE029584.D
L5 =EE029585.D L6 =EE029586.D L7 =EE029587.D ICV =EE029588.D

Compound	L1	L2	L3	L4	L5	L6	L7	ICV	Avg	%RSD
1) Naphthalene	4.922	4.758	5.086	4.995	5.068	4.949	5.001		4.968 E5	2.21
2) Acenaphthyle	1.975	1.902	2.023	1.997	2.033	1.978	2.014		1.989 E5	2.22
3) 1-Methyl Nap	4.089	3.936	4.220	4.149	4.189	4.080	4.138		4.115 E5	2.26
4) 2-Methyl Nap	4.086	3.992	4.288	4.213	4.262	4.153	4.213		4.172 E5	2.49
5) Acenaphthene	2.971	2.912	3.128	3.077	3.123	3.026	3.076		3.045 E5	2.63
6) Fluorene	1.167	1.122	1.195	1.177	1.188	1.154	1.166		1.167 E6	2.08
7) Phenanthrene	1.019	0.974	1.036	1.017	1.026	0.994	1.005		1.010 E6	2.09
8) O-Terphenyl	3.880	3.460	3.779	3.716	3.766	3.641	3.717		3.708 E5	3.55
9) Anthracene	1.484	1.446	1.438	1.320	1.280	1.205			1.362 E5	8.09
---- Quadratic regression ---- Coefficient = 0.9999										
Response Ratio = 6679.86687 + 140794.92264 *A + -681.69129 *A^2										
10) Fluoranthene	8.351	7.935	8.531	8.414	8.447	8.196	8.313		8.313 E5	2.38
11) Pyrene	1.311	1.270	1.339	1.306	1.288	1.225	1.195		1.276 E6	3.98
12) P-Terphenyl	1.390	1.309	1.391	1.370	1.384	1.384	1.402		1.376 E6	2.25
13) Benzo(a)Anth	2.217	2.130	2.274	2.238	2.253	2.181	2.197		2.213 E6	2.19
14) Chrysene	2.923	2.811	2.978	2.899	2.863	2.715	2.598		2.827 E6	4.65
15) Benzo(b)Fluo	1.101	1.059	1.125	1.110	1.122	1.090	1.110		1.102 E6	2.06
16) Benzo(k)Fluo	6.317	6.033	6.409	6.443	6.568	6.369	6.458		6.371 E5	2.65
17) Benzo(a) Pyr	1.183	1.148	1.241	1.223	1.239	1.202	1.225		1.209 E6	2.79
18) Dibenzo(a,h)	9.041	8.800	9.336	9.257	9.353	9.095	9.253		9.162 E5	2.16
19) Benzo(g,h,i)	6.294	5.906	6.351	6.269	6.307	6.112	6.244		6.212 E5	2.49
20) Indeno(1,2,3	4.826	4.635	4.983	4.917	4.947	4.832	4.919		4.866 E5	2.40

Signal #2

1) Naphthalene	2.892	2.736	2.954	2.900	2.937	2.868	2.898		2.884 E5	2.47
2) Acenaphthyle	2.008	1.917	2.040	2.003	2.003	1.950	1.984		1.986 E5	2.06
3) 1-Methyl Nap	1.782	1.711	1.838	1.803	1.804	1.753	1.782		1.782 E5	2.27
4) 2-Methyl Nap	2.531	2.422	2.594	2.546	2.557	2.488	2.528		2.524 E5	2.18
5) Acenaphthene	1.067	1.030	1.104	1.074	1.076	1.033	1.053		1.062 E5	2.46
6) Fluorene	1.290	1.234	1.314	1.296	1.304	1.265	1.277		1.283 E6	2.10
7) Phenanthrene	3.441	3.289	3.477	3.395	3.343	3.135	2.830		3.273 E6	6.88
8) O-Terphenyl	6.602	5.955	6.260	6.163	6.242	6.025	6.152		6.200 E5	3.37
9) Anthracene	7.318	6.980	7.209	6.815	6.162	5.298			6.630 E6	11.60
10) Fluoranthene	8.168	7.795	8.371	8.241	8.378	8.128	8.299		8.197 E5	2.45
11) Pyrene	7.575	7.266	7.702	7.559	7.589	7.334	7.495		7.503 E5	2.04
12) P-Terphenyl	6.906	6.507	6.897	6.767	6.809	6.826	6.984		6.814 E5	2.25
13) Benzo(a)Anth	1.649	1.579	1.684	1.657	1.669	1.625	1.654		1.645 E6	2.08
14) Chrysene	2.343	2.251	2.403	2.357	2.360	2.287	2.283		2.326 E6	2.31
15) Benzo(b)Fluo	0.995	0.958	1.021	1.005	1.009	0.977	0.990		0.994 E6	2.12
16) Benzo(k)Fluo	1.452	1.403	1.495	1.479	1.492	1.448	1.475		1.463 E6	2.20
17) Benzo(a) Pyr	1.010	0.966	1.027	1.014	1.021	0.985	0.993		1.002 E6	2.19
18) Dibenzo(a,h)	2.405	2.326	2.459	2.414	2.403	2.305	2.276		2.370 E6	2.83
19) Benzo(g,h,i)	1.033	0.991	1.051	1.037	1.044	1.013	1.026		1.028 E6	1.99
20) Indeno(1,2,3	6.839	6.463	6.883	6.795	6.868	6.694	6.826		6.767 E5	2.19

0218

Initial Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1167-ICC1167
Lab FileID: EE029584.D

(#) = Out of Range ### Number of calibration levels exceeded format ###

8310_32.M Thu Jan 27 13:49:51 2005

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1191-CC1167
Lab FileID: EE030224.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0228PAH\EE030224.D\dad1B.ch Vial: 2
Signal #2 : E:\HPCHEM\1\DATA\0228PAH\EE030224.D\dad1A.ch
Acq On : 28-Feb-2005, 10:37:58 Operator: MIKEE
Sample : CC1167-10 Inst : G1315B
Misc : op12559,gee1191,1000,,,1,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Mar 01 14:29:08 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1		Naphthalene	10.000	9.852	1.5	96	0.00	3.90- 4.40
2		Acenaphthylene	10.000	9.627	3.7	95	0.00	4.43- 4.93
3		1-Methyl Naphthalene	10.000	9.455	5.4	92	0.00	4.79- 5.29
4		2-Methyl Naphthalene	10.000	9.845	1.5	96	0.00	4.98- 5.48
5		Acenaphthene	10.000	9.369	6.3	91	0.00	5.21- 5.71
6		Fluorene	10.000	10.025	-0.3	98	0.00	5.36- 5.86
7		Phenanthrene	10.000	9.757	2.4	95	0.01	5.94- 6.44
8	S	O-Terphenyl	10.000	9.947	0.5	98	0.00	6.23- 6.73
			Amount	Calc.	%Drift			
9		Anthracene	5.000	5.262	-5.2	101	0.01	6.49- 6.99
			Amount	Calc.	%Drift			
10		Fluoranthene	10.000	10.037	-0.4	98	0.01	7.07- 7.57
11		Pyrene	10.000	10.156	-1.6	97	0.01	7.51- 8.01
12	S	P-Terphenyl	10.000	9.735	2.7	96	0.01	8.19- 8.69
13		Benzo(a)Anthracene	5.000	4.937	1.3	96	0.01	8.73- 9.23
14		Chrysene	5.000	5.085	-1.7	97	0.01	9.04- 9.54
15		Benzo(b)Fluoranthene	5.000	4.909	1.8	96	0.01	9.93-10.43
16		Benzo(k)Fluoranthene	5.000	4.982	0.4	99	0.00	10.43-10.93
17		Benzo(a) Pyrene	5.000	4.996	0.1	97	0.00	10.93-11.43
18		Dibenzo(a,h)anthracene	5.000	4.930	1.4	97	0.03	11.44-12.44
19		Benzo(g,h,i) Perylene	5.000	4.863	2.7	95	0.02	12.10-13.10
20		Indeno(1,2,3-cd)pyrene	5.000	4.840	3.2	95	0.02	12.58-13.58

***** Signal #2 *****

1		Naphthalene	10.000	9.210	7.9	90	0.00	3.90- 4.40
2		Acenaphthylene	10.000	9.419	5.8	92	0.00	4.43- 4.93
3		1-Methyl Naphthalene	10.000	9.353	6.5	91	0.00	4.79- 5.29
4		2-Methyl Naphthalene	10.000	9.678	3.2	94	0.00	4.98- 5.48
5		Acenaphthene	10.000	8.892	11.1	86	0.00	5.21- 5.71
6		Fluorene	10.000	9.894	1.1	97	0.00	5.36- 5.86
7		Phenanthrene	10.000	10.086	-0.9	95	0.01	5.94- 6.44
8	S	O-Terphenyl	10.000	10.018	-0.2	99	0.00	6.23- 6.73
9		Anthracene	5.000	5.310	-6.2	98	0.01	6.49- 6.99
10		Fluoranthene	10.000	10.074	-0.7	99	0.01	7.07- 7.57
11		Pyrene	10.000	9.911	0.9	97	0.01	7.52- 8.02
12	S	P-Terphenyl	10.000	9.717	2.8	96	0.01	8.19- 8.69
13		Benzo(a)Anthracene	5.000	4.894	2.1	96	0.01	8.73- 9.23
14		Chrysene	5.000	4.970	0.6	96	0.01	9.04- 9.54

6258

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1191-CC1167
Lab FileID: EE030224.D

15	Benzo(b)Fluoranthene	5.000	4.961	0.8	97	0.01	9.93-10.43
16	Benzo(k)Fluoranthene	5.000	4.945	1.1	97	0.00	10.43-10.93
17	Benzo(a) Pyrene	5.000	5.021	-0.4	98	0.00	10.93-11.43
18	Dibenzo(a,h)anthracene	5.000	5.028	-0.6	97	0.03	11.44-12.44
19	Benzo(g,h,i) Perylene	5.000	4.919	1.6	96	0.02	12.10-13.10
20	Indeno(1,2,3-cd)pyrene	5.000	4.851	3.0	95	0.02	12.58-13.58

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE029583.D 8310_32.M Tue Mar 01 14:48:39 2005

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1191-CC1167
Lab FileID: EE030234.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0228PAH\EE030234.D\dad1B.ch Vial: 3
Signal #2 : E:\HPCHEM\1\DATA\0228PAH\EE030234.D\dad1A.ch
Acq On : 28-Feb-2005, 13:49:34 Operator: MIKEE
Sample : CC1167-20 Inst : G1315B
Misc : op12567,gee1191,1000,,,1,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Mar 01 14:29:08 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1		Naphthalene	20.000	19.867	0.7	99	0.00	3.90- 4.40
2		Acenaphthylene	20.000	19.565	2.2	97	0.00	4.43- 4.93
3		1-Methyl Naphthalene	20.000	19.028	4.9	94	0.00	4.79- 5.29
4		2-Methyl Naphthalene	20.000	19.926	0.4	99	0.00	4.98- 5.48
5		Acenaphthene	20.000	18.422	7.9	91	0.00	5.21- 5.71
6		Fluorene	20.000	20.367	-1.8	101	0.00	5.36- 5.86
7		Phenanthrene	20.000	19.641	1.8	98	0.00	5.94- 6.44
8	S	O-Terphenyl	20.000	20.107	-0.5	100	0.00	6.23- 6.73
			Amount	Calc.	%Drift			
9		Anthracene	10.000	10.713	-7.1	109	0.00	6.49- 6.99
			Amount	Calc.	%Drift			
10		Fluoranthene	20.000	20.202	-1.0	100	0.00	7.07- 7.57
11		Pyrene	20.000	20.269	-1.3	99	0.00	7.51- 8.01
12	S	P-Terphenyl	20.000	19.605	2.0	98	0.00	8.19- 8.69
13		Benzo(a)Anthracene	10.000	9.933	0.7	98	0.00	8.73- 9.23
14		Chrysene	10.000	10.166	-1.7	99	0.00	9.04- 9.54
15		Benzo(b)Fluoranthene	10.000	9.901	1.0	98	0.01	9.93-10.43
16		Benzo(k)Fluoranthene	10.000	10.045	-0.4	99	0.00	10.43-10.93
17		Benzo(a) Pyrene	10.000	10.008	-0.1	99	0.00	10.93-11.43
18		Dibenzo(a,h)anthracene	10.000	9.975	0.3	99	0.02	11.44-12.44
19		Benzo(g,h,i) Perylene	10.000	9.847	1.5	98	0.02	12.10-13.10
20		Indeno(1,2,3-cd)pyrene	10.000	9.716	2.8	96	0.02	12.58-13.58

***** Signal #2 *****

1		Naphthalene	20.000	19.505	2.5	97	0.00	3.90- 4.40
2		Acenaphthylene	20.000	19.535	2.3	97	0.00	4.43- 4.93
3		1-Methyl Naphthalene	20.000	19.156	4.2	95	0.00	4.79- 5.29
4		2-Methyl Naphthalene	20.000	19.783	1.1	98	0.00	4.98- 5.48
5		Acenaphthene	20.000	17.627	11.9	87	0.00	5.21- 5.71
6		Fluorene	20.000	20.099	-0.5	99	0.00	5.36- 5.86
7		Phenanthrene	20.000	20.226	-1.1	97	0.00	5.94- 6.44
8	S	O-Terphenyl	20.000	20.320	-1.6	102	0.00	6.23- 6.73
9		Anthracene	10.000	10.422	-4.2	101	0.00	6.49- 6.99
10		Fluoranthene	20.000	20.365	-1.8	101	0.00	7.07- 7.57
11		Pyrene	20.000	19.928	0.4	99	0.00	7.52- 8.02
12	S	P-Terphenyl	20.000	19.595	2.0	99	0.00	8.19- 8.69
13		Benzo(a)Anthracene	10.000	9.884	1.2	98	0.00	8.73- 9.23
14		Chrysene	10.000	9.992	0.1	99	0.00	9.04- 9.54

0262

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1191-CC1167
Lab FileID: EE030234.D

15	Benzo(b)Fluoranthene	10.000	10.001	-0.0	99	0.01	9.93-10.43
16	Benzo(k)Fluoranthene	10.000	9.985	0.2	99	0.00	10.43-10.93
17	Benzo(a) Pyrene	10.000	10.053	-0.5	99	0.00	10.93-11.43
18	Dibenzo(a,h)anthracene	10.000	10.045	-0.4	99	0.02	11.44-12.44
19	Benzo(g,h,i) Perylene	10.000	9.882	1.2	98	0.02	12.10-13.10
20	Indeno(1,2,3-cd)pyrene	10.000	9.781	2.2	97	0.02	12.58-13.58

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE029584.D 8310_32.M Tue Mar 01 14:48:59 2005

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1191-CC1167
Lab FileID: EE030244.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0228PAH\EE030244.D\dad1B.ch Vial: 3
Signal #2 : E:\HPCHEM\1\DATA\0228PAH\EE030244.D\dad1A.ch
Acq On : 28-Feb-2005, 17:01:15 Operator: MIKEE
Sample : CC1167-20 Inst : G1315B
Misc : op12567,gee1191,1000,,,1,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Mar 01 14:29:08 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1		Naphthalene	20.000	19.800	1.0	98	0.00	3.90- 4.40
2		Acenaphthylene	20.000	19.563	2.2	97	0.00	4.43- 4.93
3		1-Methyl Naphthalene	20.000	18.903	5.5	94	0.00	4.79- 5.29
4		2-Methyl Naphthalene	20.000	19.997	0.0	99	0.00	4.98- 5.48
5		Acenaphthene	20.000	17.933	10.3	89	0.00	5.21- 5.71
6		Fluorene	20.000	20.470	-2.3	102	0.00	5.36- 5.86
7		Phenanthrene	20.000	19.667	1.7	98	0.00	5.94- 6.44
8	S	O-Terphenyl	20.000	20.084	-0.4	100	0.00	6.23- 6.73
			Amount	Calc.	%Drift			
9		Anthracene	10.000	10.774	-7.7	109	0.00	6.49- 6.99
			Amount	Calc.	%Drift			
10		Fluoranthene	20.000	20.199	-1.0	100	0.00	7.07- 7.57
11		Pyrene	20.000	20.287	-1.4	99	0.00	7.51- 8.01
12	S	P-Terphenyl	20.000	19.624	1.9	99	0.00	8.19- 8.69
13		Benzo(a)Anthracene	10.000	9.939	0.6	98	0.00	8.73- 9.23
14		Chrysene	10.000	10.192	-1.9	99	0.00	9.04- 9.54
15		Benzo(b)Fluoranthene	10.000	9.907	0.9	98	0.00	9.93-10.43
16		Benzo(k)Fluoranthene	10.000	10.055	-0.5	99	0.00	10.43-10.93
17		Benzo(a) Pyrene	10.000	10.016	-0.2	99	-0.01	10.93-11.43
18		Dibenzo(a,h)anthracene	10.000	9.988	0.1	99	0.00	11.44-12.44
19		Benzo(g,h,i) Perylene	10.000	9.804	2.0	97	0.00	12.10-13.10
20		Indeno(1,2,3-cd)pyrene	10.000	9.686	3.1	96	0.00	12.58-13.58

***** Signal #2 *****

1		Naphthalene	20.000	19.458	2.7	97	0.00	3.90- 4.40
2		Acenaphthylene	20.000	19.539	2.3	97	0.00	4.43- 4.93
3		1-Methyl Naphthalene	20.000	19.020	4.9	94	0.00	4.79- 5.29
4		2-Methyl Naphthalene	20.000	19.873	0.6	98	0.00	4.98- 5.48
5		Acenaphthene	20.000	17.105	14.5	85	0.00	5.21- 5.71
6		Fluorene	20.000	20.124	-0.6	100	0.00	5.36- 5.86
7		Phenanthrene	20.000	20.242	-1.2	98	0.00	5.94- 6.44
8	S	O-Terphenyl	20.000	20.266	-1.3	102	0.00	6.23- 6.73
9		Anthracene	10.000	10.445	-4.5	102	0.00	6.49- 6.99
10		Fluoranthene	20.000	20.388	-1.9	101	0.00	7.07- 7.57
11		Pyrene	20.000	19.966	0.2	99	0.00	7.52- 8.02
12	S	P-Terphenyl	20.000	19.617	1.9	99	0.00	8.19- 8.69
13		Benzo(a)Anthracene	10.000	9.889	1.1	98	0.00	8.73- 9.23
14		Chrysene	10.000	10.011	-0.1	99	0.00	9.04- 9.54

0266

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1191-CC1167
Lab FileID: EE030244.D

15	Benzo(b)Fluoranthene	10.000	9.999	0.0	99	0.00	9.93-10.43
16	Benzo(k)Fluoranthene	10.000	9.992	0.1	99	0.00	10.43-10.93
17	Benzo(a) Pyrene	10.000	10.060	-0.6	99	-0.01	10.93-11.43
18	Dibenzo(a,h)anthracene	10.000	10.060	-0.6	99	0.00	11.44-12.44
19	Benzo(g,h,i) Perylene	10.000	9.886	1.1	98	0.00	12.10-13.10
20	Indeno(1,2,3-cd)pyrene	10.000	9.768	2.3	97	0.00	12.58-13.58

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE029584.D 8310_32.M Tue Mar 01 14:49:00 2005

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1191-ECC1167
Lab FileID: EE030255.D

Evaluate Continuing Calibration Report

Signal #1 : E:\HPCHEM\1\DATA\0228PAH\EE030255.D\dad1B.ch Vial: 3
Signal #2 : E:\HPCHEM\1\DATA\0228PAH\EE030255.D\dad1A.ch
Acq On : 28-Feb-2005, 20:32:09 Operator: MIKEE
Sample : ECC1167-20 Inst : G1315B
Misc : op12567,gee1191,1000,,,1,,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Mar 01 14:29:08 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1		Naphthalene	20.000	19.689	1.6	98	0.02	3.90- 4.40
2		Acenaphthylene	20.000	19.537	2.3	97	0.02	4.43- 4.93
3		1-Methyl Naphthalene	20.000	18.717	6.4	93	0.02	4.79- 5.29
4		2-Methyl Naphthalene	20.000	19.922	0.4	99	0.02	4.98- 5.48
5		Acenaphthene	20.000	17.569	12.2	87	0.02	5.21- 5.71
6		Fluorene	20.000	20.438	-2.2	101	0.02	5.36- 5.86
7		Phenanthrene	20.000	19.602	2.0	97	0.02	5.94- 6.44
8	S	O-Terphenyl	20.000	19.862	0.7	99	0.02	6.23- 6.73
			Amount	Calc.	%Drift			
9		Anthracene	10.000	10.792	-7.9	110	0.01	6.49- 6.99
			Amount	Calc.	%Drift			
10		Fluoranthene	20.000	20.090	-0.4	99	0.00	7.07- 7.57
11		Pyrene	20.000	20.215	-1.1	99	0.00	7.51- 8.01
12	S	P-Terphenyl	20.000	19.537	2.3	98	0.00	8.19- 8.69
13		Benzo(a)Anthracene	10.000	9.917	0.8	98	0.00	8.73- 9.23
14		Chrysene	10.000	10.169	-1.7	99	0.00	9.04- 9.54
15		Benzo(b)Fluoranthene	10.000	9.875	1.3	98	-0.01	9.93-10.43
16		Benzo(k)Fluoranthene	10.000	10.045	-0.4	99	-0.03	10.43-10.93
17		Benzo(a) Pyrene	10.000	10.002	-0.0	99	-0.03	10.93-11.43
18		Dibenzo(a,h)anthracene	10.000	9.985	0.2	99	-0.03	11.44-12.44
19		Benzo(g,h,i) Perylene	10.000	9.759	2.4	97	-0.03	12.10-13.10
20		Indeno(1,2,3-cd)pyrene	10.000	9.716	2.8	96	-0.04	12.58-13.58
*****		Signal #2 *****						
1		Naphthalene	20.000	19.360	3.2	96	0.02	3.90- 4.40
2		Acenaphthylene	20.000	19.469	2.7	97	0.02	4.43- 4.93
3		1-Methyl Naphthalene	20.000	18.783	6.1	93	0.02	4.79- 5.29
4		2-Methyl Naphthalene	20.000	19.805	1.0	98	0.02	4.98- 5.48
5		Acenaphthene	20.000	16.642	16.8#	82	0.02	5.21- 5.71
6		Fluorene	20.000	20.035	-0.2	99	0.02	5.36- 5.86
7		Phenanthrene	20.000	20.181	-0.9	97	0.02	5.94- 6.44
8	S	O-Terphenyl	20.000	20.022	-0.1	101	0.02	6.23- 6.73
9		Anthracene	10.000	10.412	-4.1	101	0.01	6.49- 6.99
10		Fluoranthene	20.000	20.376	-1.9	101	0.00	7.07- 7.57
11		Pyrene	20.000	19.910	0.4	99	0.00	7.52- 8.02
12	S	P-Terphenyl	20.000	19.581	2.1	99	0.00	8.19- 8.69
13		Benzo(a)Anthracene	10.000	9.872	1.3	98	0.00	8.73- 9.23
14		Chrysene	10.000	9.987	0.1	99	0.00	9.04- 9.54

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GEE1191-ECC1167
Lab FileID: EE030255.D

15	Benzo(b)Fluoranthene	10.000	9.977	0.2	99	-0.01	9.93-10.43
16	Benzo(k)Fluoranthene	10.000	9.991	0.1	99	-0.03	10.43-10.93
17	Benzo(a) Pyrene	10.000	10.058	-0.6	99	-0.03	10.93-11.43
18	Dibenzo(a,h)anthracene	10.000	10.047	-0.5	99	-0.03	11.44-12.44
19	Benzo(g,h,i) Perylene	10.000	9.841	1.6	98	-0.03	12.10-13.10
20	Indeno(1,2,3-cd)pyrene	10.000	9.744	2.6	97	-0.04	12.58-13.58

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EE029584.D 8310_32.M Tue Mar 01 14:49:01 2005

Initial Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GPP107-ICC107
Lab FileID: PP002554.D

Response Factor Report G1315B

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Fri Jan 07 10:38:21 2005
Response via : Initial Calibration

Calibration Files
L1 =PP002551.D L2 =PP002552.D L3 =PP002553.D L4 =PP002554.D
L5 =PP002555.D L6 =PP002556.D L7 =PP002557.D ICV =PP002558.D

Compound	L1	L2	L3	L4	L5	L6	L7	ICV	Avg		%RSD
1) Naphthalene	5.004	4.797	4.920	5.002	5.009	4.941	4.984	4.785	4.930	E5	1.86
2) Acenaphthyle	2.057	1.922	1.948	1.960	2.004	1.972	1.992	1.913	1.971	E5	2.37
3) 1-Methyl Nap	4.070	3.987	4.089	4.070	4.169	4.105	4.151	4.142	4.098	E5	1.43
4) 2-Methyl Nap	4.065	4.022	4.138	4.121	4.223	4.163	4.222	3.990	4.118	E5	2.11
5) Acenaphthene	2.888	2.881	2.980	2.963	3.034	2.986	3.033	2.940	2.963	E5	1.96
6) Fluorene	1.158	1.126	1.153	1.147	1.174	1.154	1.169	1.119	1.150	E6	1.66
7) Phenanthrene	1.026	0.975	0.993	0.984	1.004	0.987	0.999	0.969	0.992	E6	1.81
8) O-Terphenyl	3.932	3.512	3.637	3.593	3.668	3.591	3.664		3.657	E5	3.63
9) Anthracene	1.285	1.152	1.300	1.223	1.167	1.104	1.090	1.086	1.176	E5	7.25
10) Fluoranthene	8.381	8.035	8.310	8.259	8.452	8.289	8.359	8.153	8.280	E5	1.60
11) Pyrene	1.314	1.255	1.290	1.274	1.285	1.237	1.206	1.258	1.265	E6	2.65
12) P-Terphenyl	1.420	1.329	1.354	1.349	1.383	1.399	1.410		1.378	E6	2.50
13) Benzo(a)Anth	2.292	2.172	2.216	2.204	2.256	2.213	2.221	2.170	2.218	E6	1.84
14) Chrysene	2.964	2.816	2.861	2.830	2.851	2.756	2.657	2.748	2.810	E6	3.26
15) Benzo(b)Fluo	1.095	1.062	1.085	1.086	1.116	1.096	1.107	1.074	1.090	E6	1.59
16) Benzo(k)Fluo	6.389	6.027	6.173	6.307	6.530	6.408	6.465	6.311	6.326	E5	2.57
17) Benzo(a) Pyr	1.136	1.105	1.139	1.140	1.175	1.157	1.175	1.100	1.141	E6	2.47
18) Dibenzo(a,h)	9.502	8.980	9.196	9.208	9.449	9.275	9.371	8.965	9.243	E5	2.15
19) Benzo(g,h,i)	6.093	5.833	5.954	5.965	6.170	6.115	6.213	6.217	6.070	E5	2.29
20) Indeno(1,2,3	5.098	4.590	4.730	4.735	4.841	4.762	4.808	4.588	4.769	E5	3.38

Signal #2

1) Naphthalene	2.815	2.800	2.814	2.829	2.941	2.911	2.931	2.805	2.856	E5	2.12
2) Acenaphthyle	2.039	1.935	1.976	1.960	1.994	1.993	2.008	1.942	1.981	E5	1.75
3) 1-Methyl Nap	1.735	1.731	1.774	1.763	1.797	1.779	1.794	1.787	1.770	E5	1.42
4) 2-Methyl Nap	2.484	2.437	2.504	2.500	2.552	2.524	2.546	2.406	2.494	E5	2.04
5) Acenaphthene	1.093	1.073	1.014	1.035	1.050	1.010	1.014	0.995	1.035	E5	3.28
6) Fluorene	1.297	1.252	1.281	1.276	1.305	1.287	1.295	1.241	1.279	E6	1.76
7) Phenanthrene	3.449	3.320	3.378	3.343	3.367	3.236	2.972	3.319	3.298	E6	4.40
8) O-Terphenyl	6.615	6.051	6.088	6.091	6.218	6.095	6.176		6.190	E5	3.16
9) Anthracene	7.263	6.950	6.988	6.777	6.405	5.707	4.645	6.033	6.346	E6	13.59
10) Fluoranthene	8.094	7.796	8.073	8.124	8.300	8.155	8.264	8.045	8.106	E5	1.90
11) Pyrene	7.397	7.098	7.383	7.364	7.531	7.358	7.433	7.215	7.347	E5	1.82
12) P-Terphenyl	7.039	6.588	6.712	6.686	6.849	6.915	7.000		6.827	E5	2.49
13) Benzo(a)Anth	1.666	1.606	1.636	1.632	1.672	1.645	1.663	1.608	1.641	E6	1.55
14) Chrysene	2.386	2.296	2.343	2.333	2.381	2.336	2.336	2.267	2.335	E6	1.70
15) Benzo(b)Fluo	0.977	0.966	0.987	0.982	1.004	0.989	0.992	0.966	0.983	E6	1.32
16) Benzo(k)Fluo	1.508	1.424	1.460	1.459	1.495	1.473	1.485	1.439	1.468	E6	1.91
17) Benzo(a) Pyr	9.534	9.100	9.347	9.342	9.562	9.397	9.457	8.980	9.340	E5	2.18
18) Dibenzo(a,h)	2.416	2.326	2.371	2.363	2.391	2.321	2.291	2.303	2.348	E6	1.88
19) Benzo(g,h,i)	0.994	0.957	0.981	0.981	1.010	0.995	1.006	0.970	0.987	E6	1.83
20) Indeno(1,2,3	6.944	6.390	6.636	6.619	6.791	6.684	6.757	6.533	6.669	E5	2.52

(#) = Out of Range ### Number of calibration levels exceeded format ###

0238

8310_32.M Fri Jan 07 10:42:31 2005

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GPP143-CC107
Lab FileID: PP003495.D

Evaluate Continuing Calibration Report

Signal #1 : P:\HPCHEM\1\DATA\0301PAH\PP003495.D\dad1B.ch Vial: 2
Signal #2 : P:\HPCHEM\1\DATA\0301PAH\PP003495.D\dad1A.ch
Acq On : 01-Mar-2005, 14:23:11 Operator: MIKEE
Sample : CC107-10 Inst : G1315B
Misc : OP12579,gpp143,1000,,,1,,water Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Mar 01 14:00:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1		Naphthalene	10.000	10.096	-1.0	101	0.00	3.93- 4.43
2		Acenaphthylene	10.000	9.831	1.7	99	0.00	4.47- 4.97
3		1-Methyl Naphthalene	10.000	10.098	-1.0	101	0.00	4.83- 5.33
4		2-Methyl Naphthalene	10.000	10.256	-2.6	102	0.00	5.02- 5.52
5		Acenaphthene	10.000	10.122	-1.2	101	0.02	5.24- 5.74
6		Fluorene	10.000	10.224	-2.2	102	0.02	5.40- 5.90
7		Phenanthrene	10.000	10.136	-1.4	101	0.02	5.97- 6.47
8	S	O-Terphenyl	10.000	10.014	-0.1	101	0.02	6.26- 6.76
9		Anthracene	5.000	5.497	-9.9	99	0.02	6.53- 7.03
10		Fluoranthene	10.000	10.248	-2.5	102	0.02	7.11- 7.61
11		Pyrene	10.000	10.381	-3.8	102	0.02	7.57- 8.07
12	S	P-Terphenyl	10.000	9.913	0.9	101	0.01	8.22- 8.72
13		Benzo(a)Anthracene	5.000	5.039	-0.8	101	0.01	8.78- 9.28
14		Chrysene	5.000	5.137	-2.7	101	0.01	9.09- 9.59
15		Benzo(b)Fluoranthene	5.000	5.036	-0.7	101	0.01	9.99-10.49
16		Benzo(k)Fluoranthene	5.000	5.130	-2.6	105	0.00	10.48-10.98
17		Benzo(a) Pyrene	5.000	5.143	-2.9	103	0.00	10.99-11.49
18		Dibenzo(a,h)anthracene	5.000	5.030	-0.6	101	0.01	11.52-12.52
19		Benzo(g,h,i) Perylene	5.000	5.006	-0.1	102	0.01	12.19-13.19
20		Indeno(1,2,3-cd)pyrene	5.000	5.013	-0.3	101	0.01	12.66-13.66

***** Signal #2 *****

1		Naphthalene	10.000	10.155	-1.5	103	0.00	3.93- 4.43
2		Acenaphthylene	10.000	10.022	-0.2	100	0.00	4.47- 4.97
3		1-Methyl Naphthalene	10.000	10.100	-1.0	101	0.00	4.83- 5.33
4		2-Methyl Naphthalene	10.000	10.190	-1.9	102	0.00	5.02- 5.52
5		Acenaphthene	10.000	9.718	2.8	99	0.02	5.24- 5.74
6		Fluorene	10.000	10.153	-1.5	101	0.02	5.40- 5.90
7		Phenanthrene	10.000	10.336	-3.4	101	0.02	5.97- 6.47
8	S	O-Terphenyl	10.000	9.804	2.0	100	0.02	6.26- 6.76
9		Anthracene	5.000	5.585	-11.7	101	0.02	6.53- 7.03
10		Fluoranthene	10.000	10.295	-2.9	103	0.02	7.11- 7.61
11		Pyrene	10.000	10.196	-2.0	101	0.02	7.57- 8.07
12	S	P-Terphenyl	10.000	9.906	0.9	101	0.01	8.22- 8.72
13		Benzo(a)Anthracene	5.000	5.022	-0.4	101	0.01	8.78- 9.28
14		Chrysene	5.000	5.053	-1.1	101	0.01	9.09- 9.59
15		Benzo(b)Fluoranthene	5.000	5.069	-1.4	101	0.01	9.99-10.49
16		Benzo(k)Fluoranthene	5.000	5.034	-0.7	101	0.00	10.48-10.98
17		Benzo(a) Pyrene	5.000	5.154	-3.1	103	0.00	10.99-11.49
18		Dibenzo(a,h)anthracene	5.000	5.102	-2.0	101	0.01	11.52-12.52

0314

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GPP143-CC107
Lab FileID: PP003495.D

19	Benzo(g,h,i) Perylene	5.000	5.134	-2.7	103	0.01	12.19-13.19
20	Indeno(1,2,3-cd)pyrene	5.000	5.060	-1.2	102	0.01	12.66-13.66

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PP002553.D 8310_32.M Wed Mar 02 13:11:36 2005

0275

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GPP143-CC107
Lab FileID: PP003506.D

Evaluate Continuing Calibration Report

Signal #1 : P:\HPCHEM\1\DATA\0301PAH\PP003506.D\dad1B.ch Vial: 3
Signal #2 : P:\HPCHEM\1\DATA\0301PAH\PP003506.D\dad1A.ch
Acq On : 01-Mar-2005, 17:53:17 Operator: MIKEE
Sample : CC107-20 Inst : G1315B
Misc : OP12567,gpp143,1000,,,1,,water Multiplr: 1.00
IntFile Signal #1: EVENTS1.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\2\METHODS\8310_32.M (Chemstation Integrator)
Title : PAH's BY EPA 8310
Last Update : Tue Mar 01 14:00:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 200%

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1		Naphthalene	20.000	20.742	-3.7	102	0.00	3.93- 4.43
2		Acenaphthylene	20.000	20.612	-3.1	104	0.00	4.47- 4.97
3		1-Methyl Naphthalene	20.000	20.699	-3.5	104	0.00	4.83- 5.33
4		2-Methyl Naphthalene	20.000	20.957	-4.8	105	0.00	5.02- 5.52
5		Acenaphthene	20.000	20.761	-3.8	104	0.02	5.24- 5.74
6		Fluorene	20.000	20.902	-4.5	105	0.01	5.40- 5.90
7		Phenanthrene	20.000	20.719	-3.6	104	0.01	5.97- 6.47
8	S	O-Terphenyl	20.000	20.498	-2.5	104	0.02	6.26- 6.76
9		Anthracene	10.000	10.689	-6.9	103	0.01	6.53- 7.03
10		Fluoranthene	20.000	20.922	-4.6	105	0.01	7.11- 7.61
11		Pyrene	20.000	21.083	-5.4	105	0.01	7.57- 8.07
12	S	P-Terphenyl	20.000	20.307	-1.5	104	0.01	8.22- 8.72
13		Benzo(a)Anthracene	10.000	10.312	-3.1	104	0.00	8.78- 9.28
14		Chrysene	10.000	10.430	-4.3	104	0.00	9.09- 9.59
15		Benzo(b)Fluoranthene	10.000	10.338	-3.4	104	0.00	9.99-10.49
16		Benzo(k)Fluoranthene	10.000	10.356	-3.6	104	0.00	10.48-10.98
17		Benzo(a) Pyrene	10.000	10.730	-7.3	107	0.00	10.99-11.49
18		Dibenzo(a,h)anthracene	10.000	10.346	-3.5	104	0.00	11.52-12.52
19		Benzo(g,h,i) Perylene	10.000	10.339	-3.4	105	0.00	12.19-13.19
20		Indeno(1,2,3-cd)pyrene	10.000	10.400	-4.0	105	0.00	12.66-13.66

***** Signal #2 *****

1		Naphthalene	20.000	20.800	-4.0	105	0.00	3.93- 4.43
2		Acenaphthylene	20.000	20.550	-2.8	104	0.00	4.47- 4.97
3		1-Methyl Naphthalene	20.000	20.668	-3.3	104	0.00	4.83- 5.33
4		2-Methyl Naphthalene	20.000	20.789	-3.9	104	0.00	5.02- 5.52
5		Acenaphthene	20.000	19.773	1.1	99	0.02	5.24- 5.74
6		Fluorene	20.000	20.790	-3.9	104	0.01	5.40- 5.90
7		Phenanthrene	20.000	21.121	-5.6	104	0.01	5.97- 6.47
8	S	O-Terphenyl	20.000	20.258	-1.3	103	0.02	6.26- 6.76
9		Anthracene	10.000	11.117	-11.2	104	0.01	6.53- 7.03
10		Fluoranthene	20.000	20.744	-3.7	103	0.01	7.11- 7.61
11		Pyrene	20.000	20.930	-4.6	104	0.01	7.57- 8.07
12	S	P-Terphenyl	20.000	20.291	-1.5	104	0.01	8.22- 8.72
13		Benzo(a)Anthracene	10.000	10.289	-2.9	103	0.00	8.78- 9.28
14		Chrysene	10.000	10.328	-3.3	103	0.00	9.09- 9.59
15		Benzo(b)Fluoranthene	10.000	10.386	-3.9	104	0.00	9.99-10.49
16		Benzo(k)Fluoranthene	10.000	10.322	-3.2	104	0.00	10.48-10.98
17		Benzo(a) Pyrene	10.000	10.742	-7.4	107	0.00	10.99-11.49
18		Dibenzo(a,h)anthracene	10.000	10.428	-4.3	104	0.00	11.52-12.52

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GPP143-CC107
Lab FileID: PP003506.D

19	Benzo(g,h,i) Perylene	10.000	10.594	-5.9	107	0.00	12.19-13.19
20	Indeno(1,2,3-cd)pyrene	10.000	10.425	-4.3	105	0.00	12.66-13.66

(#) = Out of Range SPCC's out = 0 CCC's out = 0
PP002554.D 8310_32.M Wed Mar 02 13:10:22 2005

0279

Method Blank Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12567-MB	PP003504.D	1	03/01/05	MRE	02/24/05	OP12567	GPP143

The QC reported here applies to the following samples: Method: SW846 8310

F29984-1, F29984-2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	4.0	1.0	ug/l	
120-12-7	Anthracene	ND	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	0.10	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	0.10	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	0.10	ug/l	
218-01-9	Chrysene	ND	2.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	0.10	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.50	ug/l	
86-73-7	Fluorene	ND	2.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	0.10	ug/l	
91-20-3	Naphthalene	ND	2.0	1.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.50	ug/l	
85-01-8	Phenanthrene	ND	2.0	1.0	ug/l	
129-00-0	Pyrene	ND	2.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	98%	36-114%
92-94-4	p-Terphenyl	91%	31-121%

Method Blank Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12567-MB	EE030232.D	1	02/28/05	MRE	02/24/05	OP12567	GEE1191

The QC reported here applies to the following samples: Method: SW846 8310

F29984-1, F29984-2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	4.0	1.0	ug/l	
120-12-7	Anthracene	ND	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	0.10	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	0.10	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	0.10	ug/l	
218-01-9	Chrysene	ND	2.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	0.10	ug/l	
206-44-0	Fluoranthene	ND	2.0	0.50	ug/l	
86-73-7	Fluorene	ND	2.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	0.10	ug/l	
91-20-3	Naphthalene	ND	2.0	1.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	0.50	ug/l	
85-01-8	Phenanthrene	ND	2.0	1.0	ug/l	
129-00-0	Pyrene	ND	2.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	96%	36-114%
92-94-4	p-Terphenyl	90%	31-121%

Semivolatile Surrogate Recovery Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Method: SW846 8310 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S2 [a]
F29984-1	EE030251.D	85.0	81.0
F29984-2	EE030254.D	89.0	90.0
OP12567-BS	EE030231.D		
OP12567-MB	EE030232.D	96.0	90.0
OP12567-MB	PP003504.D	98.0	91.0
OP12567-MS	EE030252.D	93.0	96.0
OP12567-MSD	EE030253.D	88.0	90.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	36-114%
S2 = p-Terphenyl	31-121%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Check Std:	GEE1191-CC1167	**Injection Date:**	02/28/05
Lab File ID:	EE030224.D	**Injection Time:**	10:37
Instrument ID:	GCEE	**Method:**	SW846 8310

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	6.48	6.48	8.45	8.45

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP12559-MB	EE030225.D	02/28/05	10:57	6.48		8.45	
ZZZZZZ	EE030226.D	02/28/05	11:16		6.48	8.45	
ZZZZZZ	EE030227.D	02/28/05	11:35	6.48		8.45	
ZZZZZZ	EE030228.D	02/28/05	11:54	6.48		8.44	
ZZZZZZ	EE030229.D	02/28/05	12:13	6.47		8.45	
OP12567-BS	EE030231.D	02/28/05	12:52		6.48		8.45
OP12567-MB	EE030232.D	02/28/05	13:11	6.48		8.45	
ZZZZZZ	EE030233.D	02/28/05	13:30	6.48		8.45	

Surrogate Compounds

S1 = o-Terphenyl
S2 = p-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Check Std:	GEE1191-CC1167	**Injection Date:**	02/28/05
Lab File ID:	EE030244.D	**Injection Time:**	17:01
Instrument ID:	GCEE	**Method:**	SW846 8310

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	6.48	6.48	8.44	8.44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
ZZZZZZ	EE030245.D	02/28/05	17:20		6.48		8.44
ZZZZZZ	EE030246.D	02/28/05	17:39	6.48		8.44	
ZZZZZZ	EE030247.D	02/28/05	17:58	6.47		8.45	
ZZZZZZ	EE030248.D	02/28/05	18:17	6.48		8.44	
ZZZZZZ	EE030249.D	02/28/05	18:37	6.48		8.44	
ZZZZZZ	EE030250.D	02/28/05	18:56	6.48		8.43	
F29984-1	EE030251.D	02/28/05	19:15	6.49		8.43	
OP12567-MS	EE030252.D	02/28/05	19:34	6.49		8.43	
OP12567-MSD	EE030253.D	02/28/05	19:53	6.49		8.43	
F29984-2	EE030254.D	02/28/05	20:13	6.50		8.44	
GEE1191-ECC116	EE030255.D	02/28/05	20:32	6.50	6.50	8.44	8.44

Surrogate Compounds

S1 = o-Terphenyl
S2 = p-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

C196

GC Surrogate Retention Time Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Check Std:	GPP143-CC107	**Injection Date:**	03/01/05
Lab File ID:	PP003495.D	**Injection Time:**	14:23
Instrument ID:	GCPP	**Method:**	SW846 8310

	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
Check Std	6.53	6.53	8.49	8.49

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT	S2 [a] RT	S2 [b] RT
OP12579-MB	PP003496.D	03/01/05	14:42	6.53		8.49	
ZZZZZZ	PP003497.D	03/01/05	15:01	6.53		8.49	
OP12578-MB	PP003498.D	03/01/05	15:20	6.53		8.48	
ZZZZZZ	PP003499.D	03/01/05	15:39	6.52		8.48	
ZZZZZZ	PP003500.D	03/01/05	15:58	6.52		8.48	
ZZZZZZ	PP003501.D	03/01/05	16:17	6.53		8.48	
ZZZZZZ	PP003502.D	03/01/05	16:36		6.52		8.49
ZZZZZZ	PP003503.D	03/01/05	16:56		6.52		8.48
OP12567-MB	PP003504.D	03/01/05	17:15	6.53		8.48	
ZZZZZZ	PP003505.D	03/01/05	17:34		6.53		8.48

Surrogate Compounds

S1 = o-Terphenyl
S2 = p-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Blank Spike Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12567-BS	EE030231.D	1	02/28/05	MRE	02/24/05	OP12567	GEE1191

The QC reported here applies to the following samples: Method: SW846 8310

F29984-1, F29984-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	20	15.4	77	60-98
208-96-8	Acenaphthylene	20	16.2	81	57-97
120-12-7	Anthracene	10	8.9	89	68-103
56-55-3	Benzo(a)anthracene	10	9.5	95	68-106
50-32-8	Benzo(a)pyrene	10	9.6	96	70-108
205-99-2	Benzo(b)fluoranthene	10	9.7	97	70-108
191-24-2	Benzo(g,h,i)perylene	10	9.7	97	69-108
207-08-9	Benzo(k)fluoranthene	10	10	100	69-109
218-01-9	Chrysene	10	9.9	99	70-106
53-70-3	Dibenzo(a,h)anthracene	10	9.9	99	69-108
206-44-0	Fluoranthene	20	18.6	93	65-104
86-73-7	Fluorene	20	17.4	87	61-100
193-39-5	Indeno(1,2,3-cd)pyrene	10	9.6	96	69-108
91-20-3	Naphthalene	20	14.4	72	52-91
90-12-0	1-Methylnaphthalene	20	15.1	76	54-94
91-57-6	2-Methylnaphthalene	20	15.6	78	55-94
85-01-8	Phenanthrene	20	18.0	90	62-102
129-00-0	Pyrene	20	18.7	94	65-104

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	93%	36-114%
92-94-4	p-Terphenyl	98%	31-121%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12567-MS	EE030252.D	1	02/28/05	MRE	02/24/05	OP12567	GEE1191
OP12567-MSD	EE030253.D	1	02/28/05	MRE	02/24/05	OP12567	GEE1191
F29984-1	EE030251.D	1	02/28/05	MRE	02/24/05	OP12567	GEE1191

The QC reported here applies to the following samples: Method: SW846 8310

F29984-1, F29984-2

CAS No.	Compound	F29984-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	4.0 U		40	30.3	76	28.0	70	8	42-119/25
208-96-8	Acenaphthylene	4.0 U		40	32.9	82	30.7	77	7	40-121/25
120-12-7	Anthracene	2.0 U		20	18.2	91	17.4	87	4	63-108/19
56-55-3	Benzo(a)anthracene	0.20 U		20	19.5	98	18.2	91	7	66-108/15
50-32-8	Benzo(a)pyrene	0.20 U		20	19.8	99	18.2	91	8	67-111/15
205-99-2	Benzo(b)fluoranthene	0.20 U		20	20.0	100	18.5	93	8	67-110/15
191-24-2	Benzo(g,h,i)perylene	0.20 U		20	19.8	99	18.2	91	8	66-110/15
207-08-9	Benzo(k)fluoranthene	0.20 U		20	20.3	102	18.7	94	8	66-111/15
218-01-9	Chrysene	2.0 U		20	20.3	102	18.9	95	7	60-123/17
53-70-3	Dibenzo(a,h)anthracene	0.20 U		20	20.5	103	18.9	95	8	66-111/14
206-44-0	Fluoranthene	2.0 U		40	37.5	94	36.1	90	4	64-107/16
86-73-7	Fluorene	2.0 U		40	36.4	91	34.5	86	5	52-108/22
193-39-5	Indeno(1,2,3-cd)pyrene	0.20 U		20	19.8	99	18.0	90	10	65-112/15
91-20-3	Naphthalene	2.0 U		40	29.7	74	28.2	71	5	41-102/24
90-12-0	1-Methylnaphthalene	2.0 U		40	30.8	77	29.0	73	6	41-109/25
91-57-6	2-Methylnaphthalene	2.0 U		40	32.6	82	30.8	77	6	43-106/25
85-01-8	Phenanthrene	2.0 U		40	37.0	93	35.2	88	5	59-105/20
129-00-0	Pyrene	2.0 U		40	37.8	95	36.3	91	4	65-106/15

CAS No.	Surrogate Recoveries	MS	MSD	F29984-1	Limits
84-15-1	o-Terphenyl	93%	88%	85%	36-114%
92-94-4	p-Terphenyl	96%	90%	81%	31-121%

Initial Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GOP1383-ICC1383
Lab FileID: OP46584.D

Response Factor Report FID 2

Method : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title : TPH by FL_PRO
Last Update : Tue Feb 01 13:57:46 2005
Response via : Initial Calibration

Calibration Files
1 =OP46585.D 2 =OP46586.D 3 =OP46584.D 4 =OP46587.D
5 =OP46588.D 6 =OP46589.D 7 =OP46590.D ICV =OP46432.D

Compound	1	2	3	4	5	6	7	ICV	Avg	%RSD
1) O-TERPHENYL	2.024	2.015	1.979	2.399	2.122				2.108 E4	8.11
2) TPH (C8-C40)	2.006	1.928	1.889	2.233	1.974	1.821	1.688		1.934 E4	8.74

(#) = Out of Range ### Number of calibration levels exceeded format ###

FL_PRO_F.M Wed Feb 02 07:10:54 2005

0322

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GOP1398-CC1383
Lab FileID: OP47449.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\0225PRO\OP47449.D          Vial: 1
Acq On    : 25 Feb 2005  12:28 pm                    Operator: sarahm
Sample    : cc1383-1020                              Inst    : FID 2
Misc      : op12560,gop1398,30.4,,,1,4,soil          Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Fri Feb 25 10:49:48 2005
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 S	O-TERPHENYL	60.000	64.000	-6.7	114	0.00	5.04- 5.24
2 H	TPH (C8-C40)	1020.000	1033.484	-1.3	104	0.00	1.74-10.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP46584.D FL_PRO_F.M Mon Feb 28 08:29:15 2005

0341

Continuing Calibration Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample: GOP1398-CC1383
Lab FileID: OP47460.D

Evaluate Continuing Calibration Report

```
Data File : C:\HPCHEM\2\DATA\0225PRO\OP47460.D          Vial: 1
Acq On    : 25 Feb 2005   4:20 pm                   Operator: sarahm
Sample    : cc1383-1020                             Inst    : FID 2
Misc      : op12568,gop1398,1020,,,1,1,water        Multiplr: 1.00
IntFile   : events.e

Method       : C:\HPCHEM\2\METHODS\FL_PRO_F.M (Chemstation Integrator)
Title        : TPH by FL_PRO
Last Update  : Fri Feb 25 10:49:48 2005
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  25%     Max. Rel. Area : 150%
```

		Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	S	O-TERPHENYL	60.000	65.559	-9.3	116	0.00	5.04- 5.24
2	H	TPH (C8-C40)	1020.000	1061.543	-4.1	107	0.00	1.74-10.14

(#) = Out of Range SPCC's out = 0 CCC's out = 0
OP46584.D FL_PRO_F.M Mon Feb 28 08:29:15 2005

Method Blank Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12568-MB	OP47451.D	1	02/25/05	SM	02/24/05	OP12568	GOP1398

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F29984-1, F29984-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	ND	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	96%	50-125%

0306

Semivolatile Surrogate Recovery Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Method: FLORIDA-PRO **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]
F29984-1	OP47454.D	93.0
F29984-2	OP47457.D	98.0
OP12568-BS	OP47450.D	100.0
OP12568-MB	OP47451.D	96.0
OP12568-MS	OP47455.D	103.0
OP12568-MSD	OP47456.D	99.0

Surrogate Compounds	Recovery Limits
S1 = o-Terphenyl	50-125%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Check Std:	GOP1398-CC1383	**Injection Date:**	02/25/05
Lab File ID:	OP47449.D	**Injection Time:**	12:28
Instrument ID:	GCOP	**Method:**	FLORIDA-PRO

	S1 [a] RT
Check Std	5.15

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT
OP12568-BS	OP47450.D	02/25/05	12:50	5.15
OP12568-MB	OP47451.D	02/25/05	13:11	5.14
ZZZZZZ	OP47452.D	02/25/05	13:32	5.15
ZZZZZZ	OP47453.D	02/25/05	13:52	5.15
F29984-1	OP47454.D	02/25/05	14:14	5.15
OP12568-MS	OP47455.D	02/25/05	14:35	5.15
OP12568-MSD	OP47456.D	02/25/05	14:56	5.15
F29984-2	OP47457.D	02/25/05	15:17	5.15
ZZZZZZ	OP47458.D	02/25/05	15:38	5.15
ZZZZZZ	OP47459.D	02/25/05	15:59	5.15

Surrogate Compounds

S1 = o-Terphenyl

(a) Retention time from GC signal #1

0304

Blank Spike Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12568-BS	OP47450.D	1	02/25/05	SM	02/24/05	OP12568	GOP1398

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F29984-1, F29984-2

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C8-C40)	0.85	0.771	91	68-115

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	100%	50-125%

0210

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F29984
Account: TETRPAPT Tetra Tech NUS
Project: NAS Cecil Field-Day Tank 1

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12568-MS	OP47455.D	1	02/25/05	SM	02/24/05	OP12568	GOP1398
OP12568-MSD	OP47456.D	1	02/25/05	SM	02/24/05	OP12568	GOP1398
F29984-1	OP47454.D	1	02/25/05	SM	02/24/05	OP12568	GOP1398

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F29984-1, F29984-2

CAS No.	Compound	F29984-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C8-C40)	0.184	I	1.81	1.88	94	1.82	90	3	52-140/20

CAS No.	Surrogate Recoveries	MS	MSD	F29984-1	Limits
84-15-1	o-Terphenyl	103%	99%	93%	50-125%

0314

APPENDIX D

MONITORING WELL BORING LOG AND CONSTRUCTION LOG

BORING LOG

Tetra Tech NUS, Inc.

PROJECT NAME: Ph II S.A.W.P. - DTI BASIN
PROJECT NUMBER: N0039 CT078
DRILLING COMPANY: PARTRIDGE WELL CO.
DRILLING RIG: DRILMASTER 400

BORING NO.: 001
DATE: 02/16/2005
GEOLOGIST: MERVIN W. DALE
DRILLER: JEFF WEATHERFORD

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/ Consistence or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	0-4				blk, lt gray		silty fine sand	SM	fill, mixed color			0.4	0.4
	4-7					black	silty fine sand	SM	DAMP, fill				
	7-13					brown	SILTY FINE SAND	SM	moist to wet				
	13-15					lt. brn	SILTY FINE SAND	SM	wet			0.4	0.4
							EOB @ 15 ft. bls.						

* When rock coring, enter rock brokeness.

** Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated reponse read.

Remarks:

Drilling Area 0.3 -
Background (ppm): 0.4

Converted to Well: Yes X No ____ Well I.D. #: CEF-293-23S

Tetra Tech NUS, Inc.

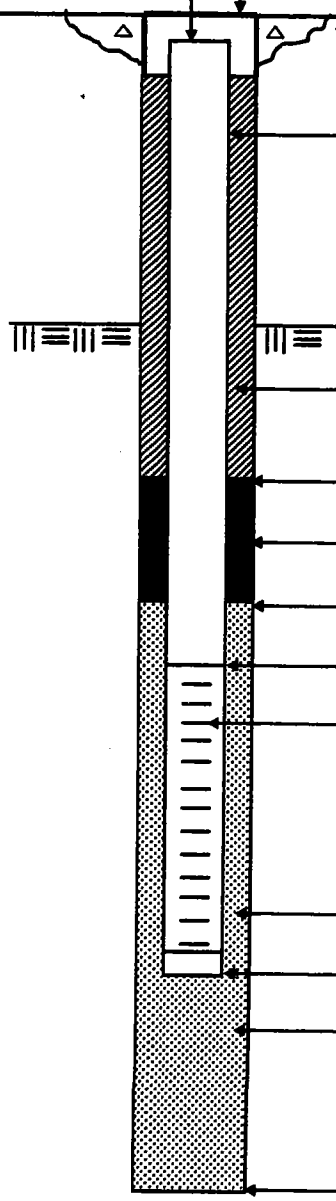
WELL No.: CEF-293-23S

MONITORING WELL SHEET

PROJECT:	Ph. V-SAWP-DTI BASIN	DRILLING Co.:	Partridge Well	BORING No.:	001
PROJECT No.:	N0039	DRILLER:	J. WEATHERFORD	DATE COMPLETED:	02/16/05
SITE:	DAY TANK 1	DRILLING METHOD:	Hollow Stem	NORTHING:	
GEOLOGIST:	M. Dale	DEV. METHOD:	Bladder Pump	EASTING:	

Ground Elevation =

Datum:



Not to Scale

Elevation / Depth of Top of Riser: 1 1 IN.

Elevation / Height of Top of Surface Casing: 1 0.5 IN.

I.D. of Surface Casing: 8"

Type of Surface Casing: Steel boltdown manhole

Type of Surface Seal: Concrete 2 ft x 2 ft x 6 inch pad

I.D. of Riser: 2 inch

Type of Riser: Sch. 40 PVC

Borehole Diameter: 8 inch

Elevation / Depth Top of Rock: N/A

Type of Backfill: Portland Cement Type I/II

Elevation / Depth of Seal: 1 1.5 FT.

Type of Seal: 30/65 FINE SAND

Elevation / Depth of Top of Filter Pack: 1 3.5 FT.

Elevation / Depth of Top of Screen: 1 4.7 FT.

Type of Screen: Sch. 40 PVC

Slot Size x Length: 0.010 inch x 10 FT.

I.D. of Screen: 2 inch

Type of Filter Pack: 20/30 FILTER SAND

Elevation / Depth of Bottom of Screen: 1 14.7 FT.

Elevation / Depth of Bottom of Filter Pack: 1 15 FT.

Type of Backfill Below Well: 20/30 GRADE SAND

Elevation / Total Depth of Borehole: 1 15 FT.

APPENDIX E

O&M GROUNDWATER ANALYTICAL RESULTS SUMMARY

TABLE 2
Groundwater Analytical Results
NAS Cecil Field, Jacksonville, Florida

Sample I.D.	Date	Benzene	Ethylbenzene	Toluene	Xylenes (total)	Acenapthylene	Acenapthene	Fluoranthene	Pyrene	Chrysene	Benzo (a) anthracene	Benzo(b) Fluoranthene	Benzo(k) Fluoranthene	Benzo(a) Pyrene	Benzo(g,h,i) Perylene	Indeno (1,2,3-cd) Pyrene	Naphthalene by Method 8270C-SIM	Naphthalene by Michod 8260	1-Methylnapthalene	2-Methylnapthalene	Phenanthrene	Fluorene	Isopropylbenzene	Chloroform	n-Propylbenzene	sec-Butylbenzene	n-Butylbenzene	T-butylbenzene	1,2,4 Trimethylbenzene	1,3,5 Trimethylbenzene	p-Isopropyltoluene
CEF 293-09	01/25/00	43.1	502	826	2192	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	713	--	128	182	ND	--	--	--	--	--	--	--	--	--	--
	12/09/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/06/03	3.8	4.3	ND	20.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.9	--	ND	ND	ND	ND	5.8	ND	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.36	--	0.20	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	2.9	5.8	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47.5	98	19.4	18.4	ND	ND	11.8	ND	12.5	3.3	1.9	--	2.3	ND	--
	03/17/04	2.3	5.7	ND	ND	ND	0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	136	144	47.1	50.4	ND	ND	7.9	ND	13.1	4.1	2.4	--	ND	ND	1.2
	06/09/04	ND	6.96	ND	1.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	63.8	81.6	24.6	22.4	ND	ND	12.2	ND	15.9	6.63	ND	ND	8.93	2.98	3.47
CEF 293-22	01/25/00	24.2	19.4	0.88	47.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	142	--	59.6	67	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	2.4	ND	--	--	--	--	--	--	--	--	--	--
	06/09/03	ND	ND	ND	ND	ND	ND	ND	0.11	ND	ND	ND	ND	ND	ND	ND	0.64	--	4.97	3.76	0.21	0.13	ND	ND	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	1.34	0.96	0.12	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.07	0.88	0.23	ND	ND	ND	ND	ND	ND	--	ND	ND	--
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.35	1.20	0.16	ND	ND	ND	ND	ND	ND	--	ND	ND	ND
	06/09/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.780 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VEW-01	01/25/00	18.5	257	59.4	726	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	350	--	220	307	ND	--	--	--	--	--	--	--	--	--	--
	06/13/00	FREE PRODUCT																													
	03/11/03	FREE PRODUCT																													
	06/07/03	FREE PRODUCT																													
	09/04/03	FREE PRODUCT																													
	12/12/03	NOT SAMPLED																													
	03/17/04	NOT SAMPLED																													
	06/09/04	NOT SAMPLED																													
VEW-02	01/25/00	91.6	349	29.2	513	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	253	--	118	139	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/07/03	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND	ND	ND	ND	ND	ND	ND	--	1.06	0.42	ND	ND	ND	ND	--	--	3.2	--	2.3	6.00	--
	09/04/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	1.4	0.54	ND	ND	ND	ND	--	--	ND	--	ND	3.90	--
	12/12/03	ND	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	0.18	ND	ND	ND	3.2	ND	ND	ND	ND	--	2.2	1.60	--
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.58	ND	1.27	1.09	ND	ND	ND	ND	ND	ND	ND	--	2.0	ND	ND
	06/09/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.284 I	ND	ND	0.396 I	ND	ND	ND	ND	ND	ND	ND	ND	2.23	1.33	ND
VEW-03	01/25/00	24.4	85.6	11.5	128	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	220	--	78	102	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/06/03	ND	ND	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	1.8	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND	--	ND	ND	--
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.87	ND	2.27	1.46	ND	ND	3.8	ND	4.2	ND	ND	--	ND	ND	ND
	06/09/04	ND	ND	ND	2.32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.03 I	ND	3.01	1.18 I	ND	ND	17.5	ND	17.2	3.21	ND	1.11	ND	2.18	6.02
VEW-04	01/25/00	81	138	7.8	232	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	232	--	88.7	108	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/07/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	--
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND
	06/09/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VEW-05	01/25/00	118	72.5	11.3	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	194	--	99.8	86.1	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/06/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	--
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND
	06/09/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
VEW-07	01/25/00	48	213	97.8	459	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	441	--	172	216	ND	--	--	--	--	--	--		--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--		--	--	--
	06/07/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	1.6	--	--	ND		ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	0.13	ND	ND	ND	ND	ND	--	--	ND		ND	ND	--
	12/12/03	ND	ND	ND	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND		ND	ND	--
	03/17/04	2.2	1.2	ND	7.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.09	ND	0.22	0.2	ND	ND	1	ND	1	ND	ND		5.7	ND	ND
	06/09/04	8.78	3.28	ND	2.20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.74	28.0	ND	0.641 I	ND	ND	2.70	ND	3.29	1.53	ND	ND	ND	2.63	ND
Cleanup Goal	RAP	1	NA	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GCTL		1	30	40	20	210	20	280	210	4.8	0.2	0.2	0.5	0.2	210	0.2	20	20	20	20	210	280	--	5.7	NA	NA	NA	NA	10	10	NA
NADSC		100	300	400	200	2100	200	2800	2100	480	20	20	50	20	2100	20	200	200	200	200	2100	2800	--	570	NA	NA	NA	NA	100	100	NA

Notes:
1. All concentrations are inug/L.
3. ND= Not Detect
4. NS = Not Sampled
5. NA = Not Analyzed
6. I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Greater than GCTL
Greater than the NADSC