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NAS CECIL FIELD, FL
5090.3a

FOURTH QUARTER 2009 GROUNDWATER MONITORING REPORT FOR NORTH FUEL FARM WITH TRANSMITTAL LETTER NAS CECIL FIELD FL
5/28/2010
SOLUTIONS-IES INC

Solutions-IES
Industrial & Environmental Services

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May 28, 2010

Mr. Art Sanford
NAVFAC SE, BRAC PMO
4130 Faber Place Drive, Suite 202
North Charleston, South Carolina 29405

Re.: North Fuel Farm 4th Quarter 2009 Groundwater Monitoring Report
BOA Contract N62467-05-G-0193/0003
NAS Cecil Field
Solutions-IES Project No. 8030.08A2.NAVF

Dear Mr. Sanford:

Attached is the 4th Quarter 2009 Groundwater Monitoring Report for the North Fuel Farm Site at NAS Cecil Field, Jacksonville, Florida. The reports summarize field activities conducted in December 2009. A copy of this report has been submitted to the members of the NAS Cecil Field Partnering Team, as shown below, for review and comment.

If you have any questions or need any additional information, please feel free to contact us at (919) 873-1060.

Yours truly,
Solutions-IES

Jessica L. Keener
Project Manager

Brian M. Rebar
Senior Project Manager

cc: Mr. Gregory Fraley, USEPA (1 copy)
Mr. David Grabka, FDEP (1 copy)
Mr. Rob Simcik, TetraTech NUS (electronic)

FOURTH QUARTER
GROUNDWATER MONITORING AND
OPERATION AND MAINTENANCE REPORT
DECEMBER 2009

NORTH FUEL FARM
FORMER NAS CECIL FIELD
JACKSONVILLE, FL

CONTRACT NO. N62467-05-G-0193
CONTRACT TASK ORDER NO. 0003

Prepared for:

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4130 Faber Place Drive, Suite 202
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MAY 17, 2010

Solutions-IES
Industrial & Environmental Services

SIGNATURE PAGE

We, the undersigned, do hereby affirm that the information contained in this report is accurate and correct to the best of our knowledge and belief.

JESSICA LYNN KEENER
LICENSE
No. PG2538
STATE OF
FLORIDA
PROFESSIONAL GEOLOGIST

Jessica L. Keener 5/18/10

Jessica L. Keener, P.G. Date Registration No.
Project Manager

B. M. R

5/18/10

Brian M. Rebar Date
Senior Project Manager

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1.0 INTRODUCTION

Solutions-IES, Inc. (Solutions-IES) has been contracted by the Navy (NAVFAC Southeast) to provide long-term groundwater monitoring and operation and maintenance (O&M) at the North Fuel Farm (site), Former Naval Air Station (NAS) Cecil Field, Jacksonville, Florida, under Basic Ordering Agreement (BOA) Contract Number N62467-05-G-0193, Contract Task Order Number 0003. Under this contract, Solutions-IES, with support from Terraine, Inc., performs quarterly groundwater monitoring and weekly O&M of the air sparge (AS) system. Solutions-IES submitted quarterly reports for the first and second quarter monitoring events in March and June 2009 and presented the third quarter September 2009 results during the November 2009 Base Closure Team (BCT) meeting. This Fourth Quarter Groundwater Monitoring Report describes the fourth quarter monitoring activities performed at the site on December 3, 2009, and the weekly O&M activities performed at the site from June 11, 2009 through December 3, 2009. Based on discussions at the November 2009 BCT meeting, it was decided that future groundwater monitoring results for the first, second and third quarter events would be presented at the BCT meetings in lieu of formal reports unless changes to the monitoring program were recommended.

1.1 SITE LOCATION AND DESCRIPTION

The site is located at the northeast corner of Aviation Avenue and Loop Road at NAS Cecil Field. A site map is included as **Figure 1**.

1.2 SITE HISTORY

The NFF site formerly contained six 595,000-gallon JP-5 jet fuel storage tanks (TtNUS, 2004). Two of the tanks were installed in 1952 and four tanks were installed in 1954. Overflow protection was installed on all of the tanks in 1987. One of the tanks (76E) was removed from service in 1991 when a leak was discovered. The remaining five storage tanks, along with the earthen containment berm and associated impacted soil, were removed from the site in 2000 and 2001. Several spills from the tanks were identified at the NFF site. A spill of approximately 23,000 gallons occurred in 1987 and an additional 913,000 gallons were spilled in 1991. Corrective action to address the petroleum impacts was completed in 1991 and a Corrective Action Completion Report was submitted in 1992. Approximately 140,000 tons of fuel-impacted soil were removed from the site (CH2M HILL, 2008). A supplemental investigation was completed in 1994 to assess impacts from an 1,800 gallon spill that occurred in November 1993.

Results of previous investigations conducted to determine the extent of impact from the petroleum releases indicated groundwater contamination above the Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Levels (GCTLs) for the following constituents: benzene, ethylbenzene, toluene and xylenes (BTEX); naphthalene; 1-methylnaphthalene and 2-methylnaphthalene. The extent of petroleum contamination extends to the water table from depths of approximately 5 feet below ground surface (ft bgs) to approximately 110 ft bgs. It was estimated that an area of approximately 917,000 square feet was impacted with contaminants at concentrations exceeding the GCTLs (TtNUS, 2004).

A combination of remediation techniques was chosen for the site including AS, biosparge (BS) and soil vapor extraction (SVE). The AS system was installed in areas where benzene concentrations exceeded 1,000 micrograms per liter (µg/L). Eighty-two vertical AS wells were installed in these areas. The BS system was installed in areas where benzene concentrations ranged from 100 µg/L to 1,000 µg/L. One hundred twenty-five vertical BS wells were installed in these areas. The SVE system was installed in the footprint of the AS system to capture vapor released as a result of the AS system operation. Ten horizontal SVE collection lines were installed at a depth of approximately 3 ft bgs in these areas.

Full-scale operation of the remediation systems began in mid-July 2005. The SVE system was shut down due to heavy entrainment of groundwater in November 2005. CH2M Hill conducted an optimization study of the system and provided their recommendations in a report submitted in June 2008. The report recommended redefining the target treatment areas based on updated groundwater data, reconfiguring the treatment system and continued sampling of the existing monitoring well network on a quarterly basis for one year to determine the need for future use (CH2M Hill, 2008). The AS system was reconfigured and restarted in November 2008, but ran sporadically through March 2009 due to maintenance issues. Solutions-IES began the O&M of the system in March 2009.

2.0 GROUNDWATER MONITORING SUMMARY

During the December 2009 monitoring event, water levels were recorded and groundwater samples were collected for laboratory analysis of volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), total recoverable petroleum hydrocarbons (TRPH), sulfide, sulfate, dissolved organic carbon and dissolved inorganic carbon from the wells listed below. Locations of the wells are illustrated on **Figure 2**.

Monitoring Well	Analysis
CEF-372-13R	VOCs, PAHs, TRPH
CEF-076-49S	VOCs, PAHs, TRPH, sulfide, sulfate, organic carbon, inorganic carbon
CEF-076-50I	VOCs, PAHs, TRPH
CEF-076-57S	VOCs, PAHs, TRPH, sulfide, sulfate, organic carbon, inorganic carbon
CEF-076-61I	VOCs, PAHs, TRPH, sulfide, sulfate, organic carbon, inorganic carbon
CEF-076-70I	VOCs, PAHs, TRPH
CEF-076-93S	VOCs, PAHs, TRPH
CEF-076-94S	VOCs, PAHs, TRPH
CEF-076-95S	VOCs, PAHs, TRPH, sulfide, sulfate, organic carbon, inorganic carbon
CEF-076-98D	VOCs, PAHs, TRPH
CEF-076-99D	VOCs, PAHs, TRPH, sulfide, sulfate, organic carbon, inorganic carbon
CEF-076-100D	VOCs, PAHs, TRPH, sulfide, sulfate, organic carbon, inorganic carbon
CEF-076-110D	VOCs, PAHs, TRPH
CEF-076-113S	VOCs, PAHs, TRPH
CEF-076-116D	VOCs, PAHs, TRPH, sulfide, sulfate, organic carbon, inorganic carbon
CEF-076-117D	VOCs, PAHs, TRPH, sulfide, sulfate, organic carbon, inorganic carbon

2.1 MONITORING WELL OBSERVATIONS

The integrity of the monitoring wells included in the long-term monitoring plan was evaluated during the sampling event. The field team noted no extensive damage (i.e., the need for well replacement or repair) to the wells during the December 2009 event.

2.2 WATER LEVEL MEASUREMENTS

Water level measurements were recorded in 16 wells on December 3, 2009. **Table 1** shows current and historical groundwater measurements at the site from October 2007 through the December 2009 sampling event. Groundwater contour maps were not prepared for the site because of the small amount of data collected compared to the relative area over which the wells are located. However, historical groundwater elevations suggest groundwater flow at the site is towards the south (CH2M HILL, 2007).

2.3 GROUNDWATER SAMPLING

2.3.1 Methodology

Groundwater sampling was conducted at the site on December 3, 2009. Sixteen monitoring wells were purged and sampled using low-flow methodology in general accordance with the FDEP, FS 2200 Groundwater Sampling Procedures (December 2008) and the Solutions-IES Work Plan (September 2008). The wells were purged immediately before sampling using a low-flow peristaltic pump, at a rate equal to or less than the groundwater recharge rate, until field parameters (temperature, pH, conductivity, turbidity and dissolved oxygen [DO]) stabilized. Oxidation-reduction potential (ORP) was also recorded. Water levels in the wells were continuously monitored during purging to maintain minimal drawdown. Samples were also collected for field analysis of DO using CHEMetrics® field test kits.

Samples were stored on ice and delivered via courier under chain-of-custody procedures to Accutest Laboratories Southeast, Inc. (Accutest), a Florida-certified and National Environmental Laboratory Accreditation Program certified laboratory located in Orlando, Florida.

2.3.2 Laboratory Analysis

Groundwater samples collected at the site were analyzed for the following:

- VOCs by EPA Method 8260B;
- PAHs by EPA Method 8310;
- TRPH by method FL-PRO;
- Sulfide by method SM20 4500S F;
- Sulfate by EPA Method 300/SW846 9056;
- Total organic carbon by method SM19 5310B/SW 9060A; and
- Total inorganic carbon by method SM20 5310B, 9060M.

A Level II data report was provided by the laboratory and is provided in **Appendix A**.

2.4 INVESTIGATION-DERIVED WASTE (IDW)

Purge, wash and rinse water from the December 2009 event was collected in 5-gallon containers and transferred to a 55-gallon drum labeled 12032009-SIES-2. The drum was staged in the IDW Storage Building (Building 536). The NAS Jacksonville Public Works Department (PWD-JAX) was notified on December 8, 2009, that the drum was being stored in the building. The Hazardous Waste IDW Characterization Summary Report for disposal was forwarded to PWD-JAX on December 22, 2009.

3.0 SAMPLING AND ANALYTICAL RESULTS

3.1 DATA REVIEW

Accutest data analysts reviewed their data according to their laboratory standard operating procedures (SOPs) for Level II quality control/quality assurance reporting. As indicated in the laboratory case narratives (**Appendix A**), several quality control constituents were outside recovery limits for several methods run by the lab due to possible matrix interference. The review also resulted in several data qualifiers. These are shown with the analyte concentrations in **Table 2** and **3**.

3.2 FIELD PARAMETERS

Temperature, pH, conductivity, turbidity, DO and ORP were measured with direct read meters in all 16 wells during purging. DO was also measured at the completion of purging using CHEMetrics® field test kits. Results of the field measurements for December 2009 are shown on **Table 2**. Copies of the groundwater sampling logs for December 2009 are provided in **Appendix B**. A summary of the field parameter measurements is shown below:

- pH ranged from 2.2 to 7.03 standard units (SU);
- Conductivity ranged from 24 to 9,675 microSiemens per centimeter (µS/cm);
- Turbidity ranged from 1 to 65 nephelometric turbidity units (NTU);
- ORP ranged from -67 to 399 millivolts (mV); and
- DO measured with CHEMetrics® field test kits ranged from 0 to 3 milligrams per liter (mg/L).

3.3 LABORATORY RESULTS FOR NATURAL ATTENUATION PARAMETERS

Groundwater samples were collected for laboratory analysis of natural attenuation parameters sulfate, sulfide, total organic carbon and total inorganic carbon from eight wells during the December 2009 monitoring event. Results of the laboratory natural attenuation parameters are shown on **Table 2** and the laboratory analytical report is included in **Appendix A**. A summary of the laboratory analytical results for natural attenuation parameters is shown below:

- Sulfide ranged from 1.4 to 3.9 mg/L while sulfate generally ranged from 1.7 to 6,130 mg/L with the exception of well CEF-076-116D which contained 14,900 mg/L sulfate; and
- Total organic carbon ranged from 5.5 to 49.7 mg/L while inorganic carbon ranged from 2.7 to 111 mg/L.

3.4 LABORATORY RESULTS FOR VOCS, PAHS AND TRPH

Benzene, ethylbenzene, xylenes, isopropylbenzene, methylene chloride, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene and naphthalene were reported above the regulatory limits during this reporting period. Well locations and constituent concentrations in excess of regulatory limits are shown on **Figure 3**.

- Benzene exceeded the GCTL of 1 microgram per liter (µg/L) in eight wells during the December 2009 event. Benzene exceeded the Natural Attenuation Default Source Concentration (NADSC) of 100 µg/L in wells CEF-076-110D and CEF-076-113S at concentrations of 175 µg/L and 8,620 µg/L, respectively;
- Ethylbenzene was reported in well CEF-076-113S at a concentration of 389 µg/L which exceeds the NADSC of 300 µg/L;
- Xylenes were reported above the GCTL of 20 µg/L in wells CEF-076-70I (80.9 µg/L) and CEF-076-93S (58.7 µg/L) and exceeded the NADSC of 200 µg/L in well CEF-076-113S (920 µg/L);
- Isopropylbenzene was reported above the GCTL of 0.8 µg/L in wells CEF-076-61I (2.9 µg/L) and CEF-076-93S (2.6 µg/L) and above the NADSC of 8 µg/L in wells CEF-076-70I (9.2 µg/L) and CEF-076-113S (42.2 µg/L);
- Methylene chloride was reported at a concentration of 113 µg/L in well CEF-076-113S which exceeds the NADSC of 50 µg/L. Methylene chloride was also detected in the associated method and/or calibration blanks which suggests that it may be a laboratory contaminant;
- 1,2,4-Trimethylbenzene concentration exceeded the GCTL of 10 µg/L in wells CEF-076-61I (25.3 µg/L) and CEF-076-70I (49.1 µg/L). The concentration of 1,2,4-trimethylbenzene was detected above the NADSC of 100 µg/L in well CEF-076-113S (181 µg/L);
- 1,3,5-Trimethylbenzene concentration exceeded the GCTL of 10 µg/L in wells CEF-076-70I (16.9 µg/L) and CEF-076-113S (56.4 µg/L); and
- Naphthalene by EPA Method 8310 was detected above the GCTL in well CEF-076-113S at 38.4 µg/L.

The laboratory results are summarized in **Table 3** and the laboratory analytical report is included in **Appendix A**. Graphs displaying the historical benzene concentrations in the shallow, intermediate and deep wells; historical ethylbenzene concentrations in select wells; historical xylenes concentrations in select wells and historical isopropylbenzene concentrations in select wells are included as **Figures 4** through **9**, respectively.

4.0 AIR SPARGE SYSTEM O&M SUMMARY

Air is currently being injected into 66 AS wells across the site. The system is programmed to run 24 hours a day and inject air into 33 wells for seven days and then inject air into the other 33 wells for seven days, so at any given moment, 33 wells are operational. The individual flow rates and pressures for each well are shown on the O&M forms included in **Appendix C**. The shallow AS wells are shown on **Figure 10** and the deep AS wells are shown on **Figure 11**.

The AS system was restarted on June 16, 2009, following the June 2009 quarterly groundwater sampling event, and shut down for maintenance on June 24, 2009. The system remained down until June 29 due to electrical issues. The AS system was restarted on June 29 and ran continuously until a power loss occurred on August 3, 2009. Solutions-IES performed an emergency O&M site visit on August 5, 2009 to restore power to the system and optimize the system settings. During the visit, Solutions-IES, with support from Kaeser Compressors, performed system repairs to pressure regulators, pressure gauges, valves, auto drains and flow meters. The system was restarted on August 6, following the repairs, and shut down on August 31, 2009 prior to the September sampling event. Weekly measurements during this time indicate that the flow rate per well was generally in the range of 2 to 10 standard cubic feet per minute (SCFM) with peaks up to 20+ SCFM observed.

The AS system was restarted on September 15, 2009, following the September 2009 quarterly groundwater sampling event. Field personnel found the system periodically shut down during subsequent O&M visits from September 9 to November 3. Solutions-IES conducted an emergency O&M site visit on November 3, 2009 to repair a broken air line and optimize the AS system. During the visit, Solutions-IES reprogrammed AS wells AS-36, AS-37, AS-41, AS-30, AS-40 and AS-42 to run continuously in the vicinity of monitor well CEF-076-113S. The AS system was shut down on November 23 prior to the December 2009 sampling event. The average flow rate per well during this quarter was generally 2 to 6 SCFM during this time with peaks up to 20 SCFM observed.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The concentrations of several constituents of concern remained above regulatory limits in several wells during the third and fourth quarter 2009 groundwater sampling events. In particular, benzene was detected above the GCTL in eight of 16 wells sampled and exceeded the NADSC in two wells during both events. Well CEF-076-113S appeared to be the most highly impacted well with six constituents detected above the NADSCs during both events.

Air is currently being injected into 66 AS wells across the site. The AS system ran continuously from June 10, 2009, through August 30, 2009, except for a five-day shutdown for maintenance activities and when it was shut down for the third quarter sampling event . The system was restarted on September 15 and operated intermittently until shutdown on November 23 prior to the fourth quarter sampling event. The AS system generally operated in the range of 2 to 10 SCFM during the third and fourth quarter

sampling periods. The system was restarted on December 7, 2009 after the quarterly groundwater sampling event was completed.

The next quarterly groundwater monitoring event will be conducted in March 2010. Reporting for the site will continue on an annual basis following the quarterly groundwater monitoring events.

6.0 REFERENCES

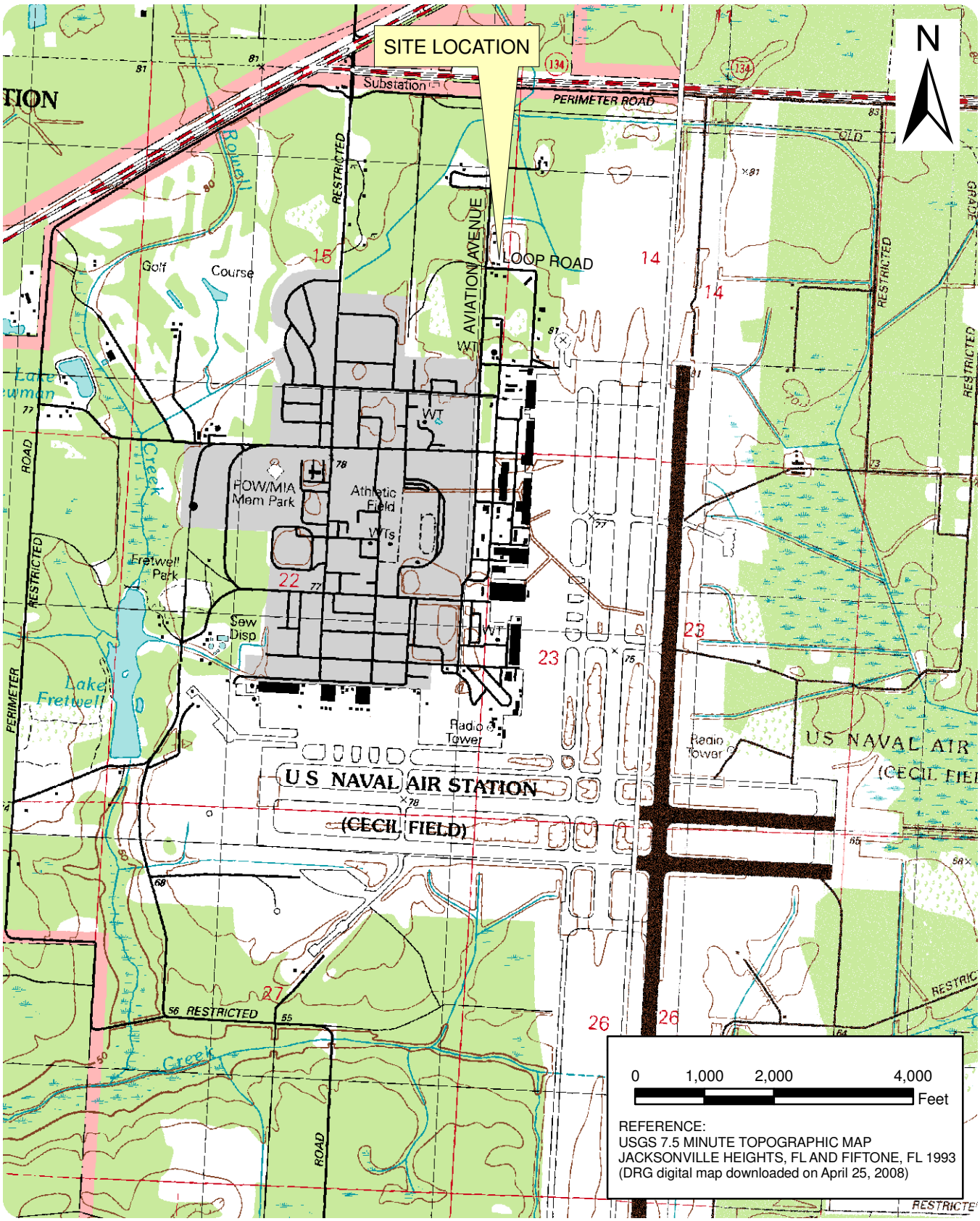
CH2M HILL, 2008. Optimization Report for Air Sparging/Biosparging Treatment System, North Fuel Farm Site, Former Naval Air Station Cecil Field, Jacksonville, Florida. Technical Memorandum. June 2008.

TetraTech NUS, 2004. Remedial Action Plan Addendum for North Fuel Farm, Naval Air Station Cecil Field, Jacksonville, Florida. March 2004.

CH2M HILL, 2007. Operations and Monitoring Status Report October 2006 – May 2007. Air Sparge, Biosparge and SVE System North Fuel Farm Area Remediation Project, Naval Air Station Cecil Field, Jacksonville, Florida. November 2007.

Florida Department of Environmental Protection (FDEP), 2008. DEP-SOP-001/01, FS 2200 Groundwater Sampling, December 2008.

FIGURES



PROJECT NUMBER	DRAFTER	CHECKED BY	PROJECT MANAGER	DATE	FILE
8030.08A2.NAVF	JC	JD	BR	11/07/08	Fig 1.pdf

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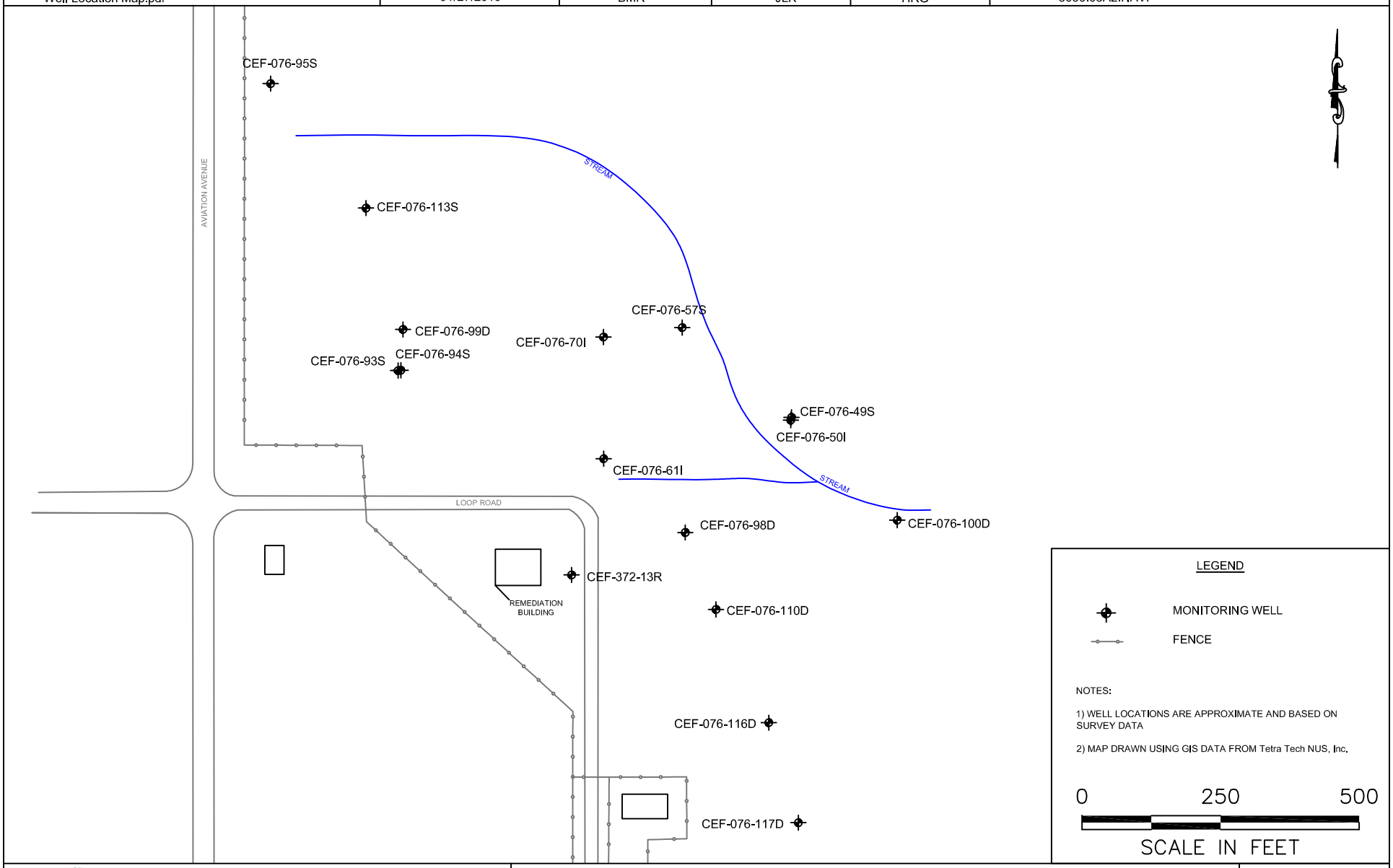
SITE LOCATION MAP
NORTH FUEL FARM
NAS CECIL FIELD
JACKSONVILLE, FL

FIGURE:
1

FILE	DATE	PROJECT MANAGER	CHECKED BY	DRAFTER	PROJECT NUMBER
Well Location Map.pdf	01/27/2010	BMR	JLK	HRG	8030.08A2.NAVF



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WELL LOCATION MAP
NORTH FUEL FARM - NAS CECIL FIELD
JACKSONVILLE, FLORIDA
DECEMBER 2009

FIGURE:
2

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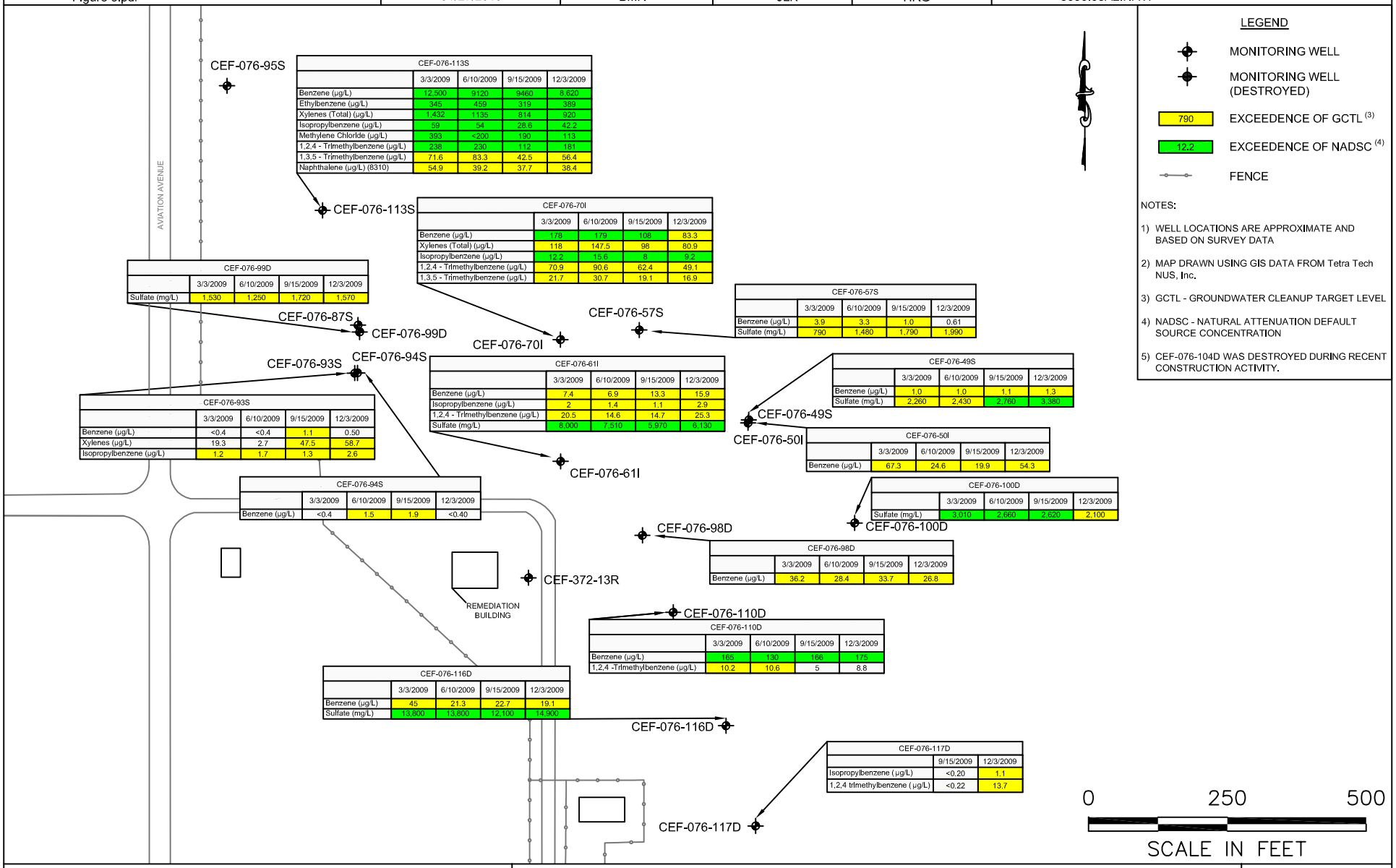
FILE	DATE	PROJECT MANAGER	CHECKED BY	DRAFTER	PROJECT NUMBER
Figure 3.pdf	01/27/2010	BMR	JLK	HRG	8030.08A2.NAVF



CEF-076-113S	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	12,500	9120	9460	8,620
Ethylbenzene (µg/L)	345	459	319	389
Xylenes (Total) (µg/L)	1,432	1135	814	920
Isopropylbenzene (µg/L)	59	54	28.6	42.2
Methylene Chloride (µg/L)	393	<200	190	113
1,2,4 - Trimethylbenzene (µg/L)	238	230	112	181
1,3,5 - Trimethylbenzene (µg/L)	71.6	83.3	42.5	56.4
Naphthalene (µg/L) (8310)	54.9	39.2	37.7	38.4

CEF-076-70I	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	178	179	108	83.3
Xylenes (Total) (µg/L)	118	147.5	96	80.9
Isopropylbenzene (µg/L)	12.2	15.6	8	9.2
1,2,4 - Trimethylbenzene (µg/L)	70.9	90.6	62.4	49.1
1,3,5 - Trimethylbenzene (µg/L)	21.7	30.7	19.1	16.9

CEF-076-99D	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Sulfate (mg/L)	1,530	1,250	1,720	1,570

CEF-076-57S	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	3.9	3.3	1.0	0.61
Sulfate (mg/L)	790	1,480	1,790	1,990

CEF-076-61I	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	7.4	6.9	13.3	15.9
Isopropylbenzene (µg/L)	2	1.4	1.1	2.9
1,2,4 - Trimethylbenzene (µg/L)	20.5	14.6	14.7	25.3
Sulfate (mg/L)	8,000	7,510	5,970	6,130

CEF-076-49S	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	1.0	1.0	1.1	1.3
Sulfate (mg/L)	2,260	2,430	2,760	3,380

CEF-076-93S	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	<0.4	<0.4	1.1	0.50
Xylenes (µg/L)	19.3	2.7	47.5	58.7
Isopropylbenzene (µg/L)	1.2	1.7	1.3	2.6

CEF-076-50I	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	67.3	24.6	19.9	54.3

CEF-076-94S	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	<0.4	1.5	1.9	<0.40

CEF-076-100D	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Sulfate (mg/L)	3,010	2,660	2,620	2,100

CEF-076-98D	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	36.2	28.4	33.7	26.8

CEF-076-110D	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	165	130	166	175
1,2,4 -Trimethylbenzene (µg/L)	10.2	10.6	5	8.8

CEF-076-116D	3/3/2009	6/10/2009	9/15/2009	12/3/2009
Benzene (µg/L)	45	21.3	22.7	19.1
Sulfate (mg/L)	13,800	13,800	12,100	14,900

CEF-076-117D	9/15/2009	12/3/2009
Isopropylbenzene (µg/L)	<0.20	1.1
1,2,4 trimethylbenzene (µg/L)	<0.22	13.7

LEGEND

- MONITORING WELL
- MONITORING WELL (DESTROYED)
- 790 — EXCEEDENCE OF GCTL (3)
- 12.2 — EXCEEDENCE OF NADSC (4)
- FENCE

NOTES:

1) WELL LOCATIONS ARE APPROXIMATE AND BASED ON SURVEY DATA
2) MAP DRAWN USING GIS DATA FROM Tetra Tech NUS, Inc.
3) GCTL - GROUNDWATER CLEANUP TARGET LEVEL
4) NADSC - NATURAL ATTENUATION DEFAULT SOURCE CONCENTRATION
5) CEF-076-104D WAS DESTROYED DURING RECENT CONSTRUCTION ACTIVITY.

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CONTAMINANT CONCENTRATION MAP
NORTH FUEL FARM - NAS CECIL FIELD
JACKSONVILLE, FLORIDA
DECEMBER 2009

FIGURE:

3

FIGURE 4
Historical Benzene Concentrations in Select Shallow Wells

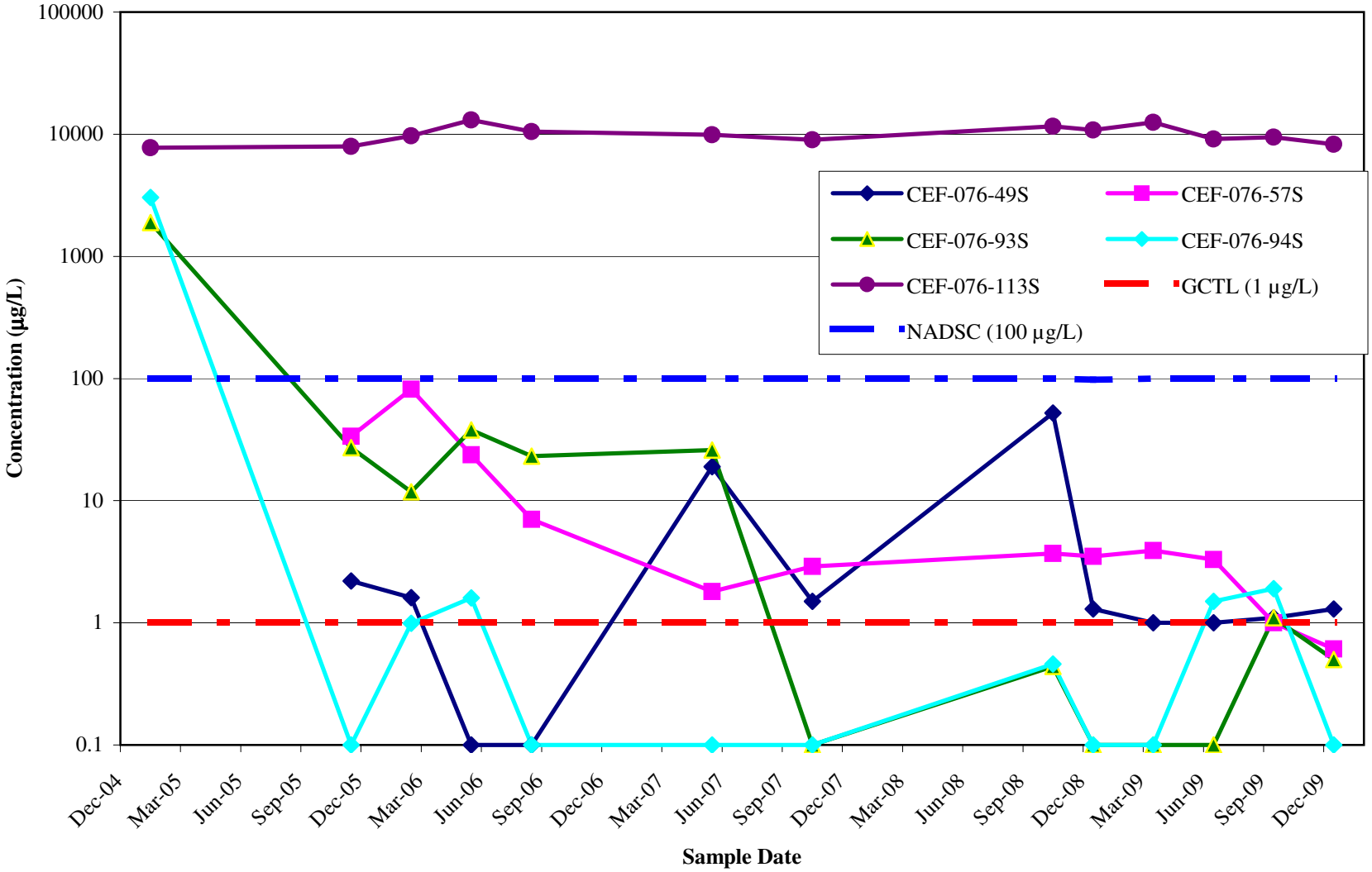


FIGURE 5
Historical Benzene Concentrations in Select Intermediate Wells

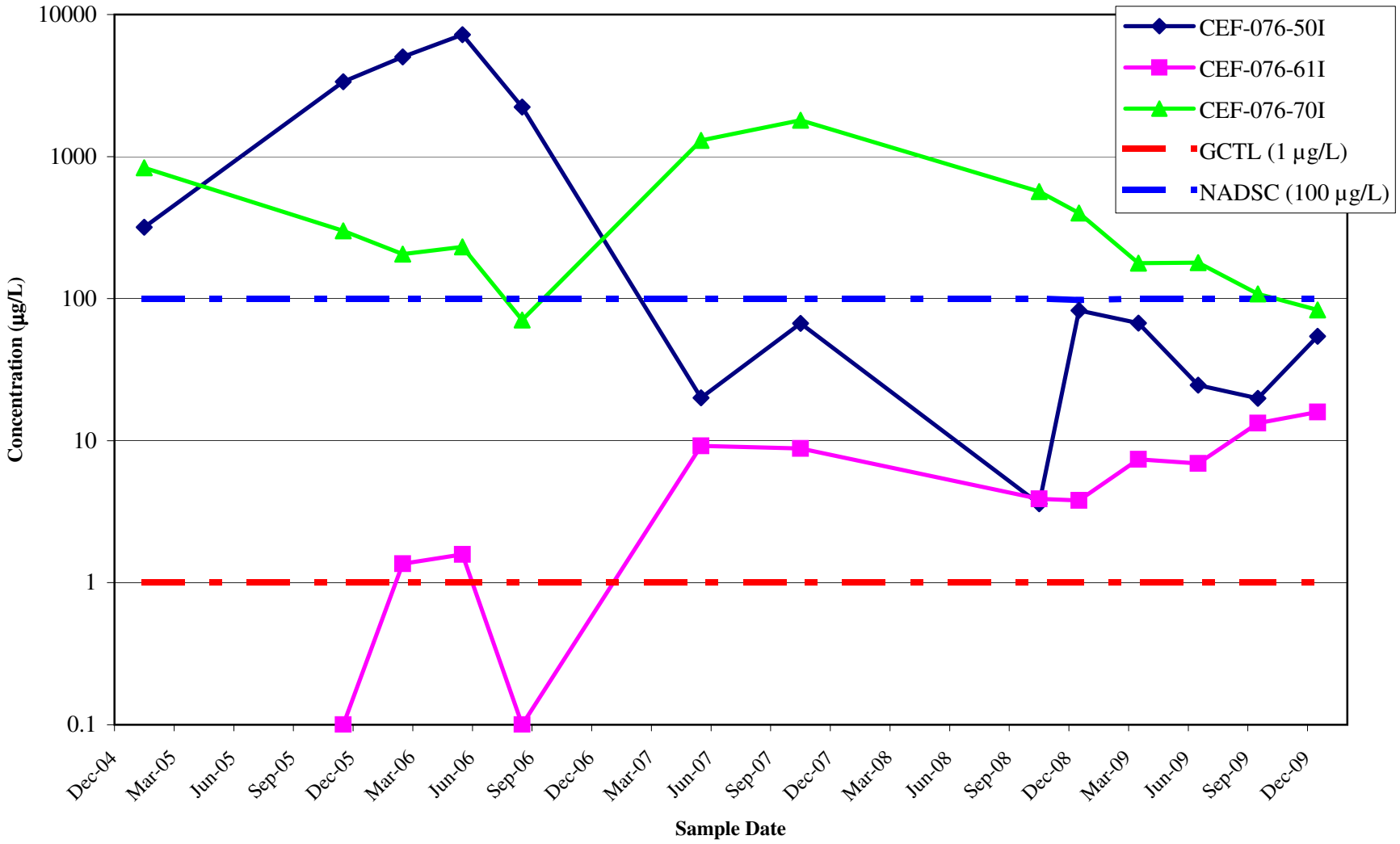


FIGURE 6
Historical Benzene Concentrations in Select Deep Wells

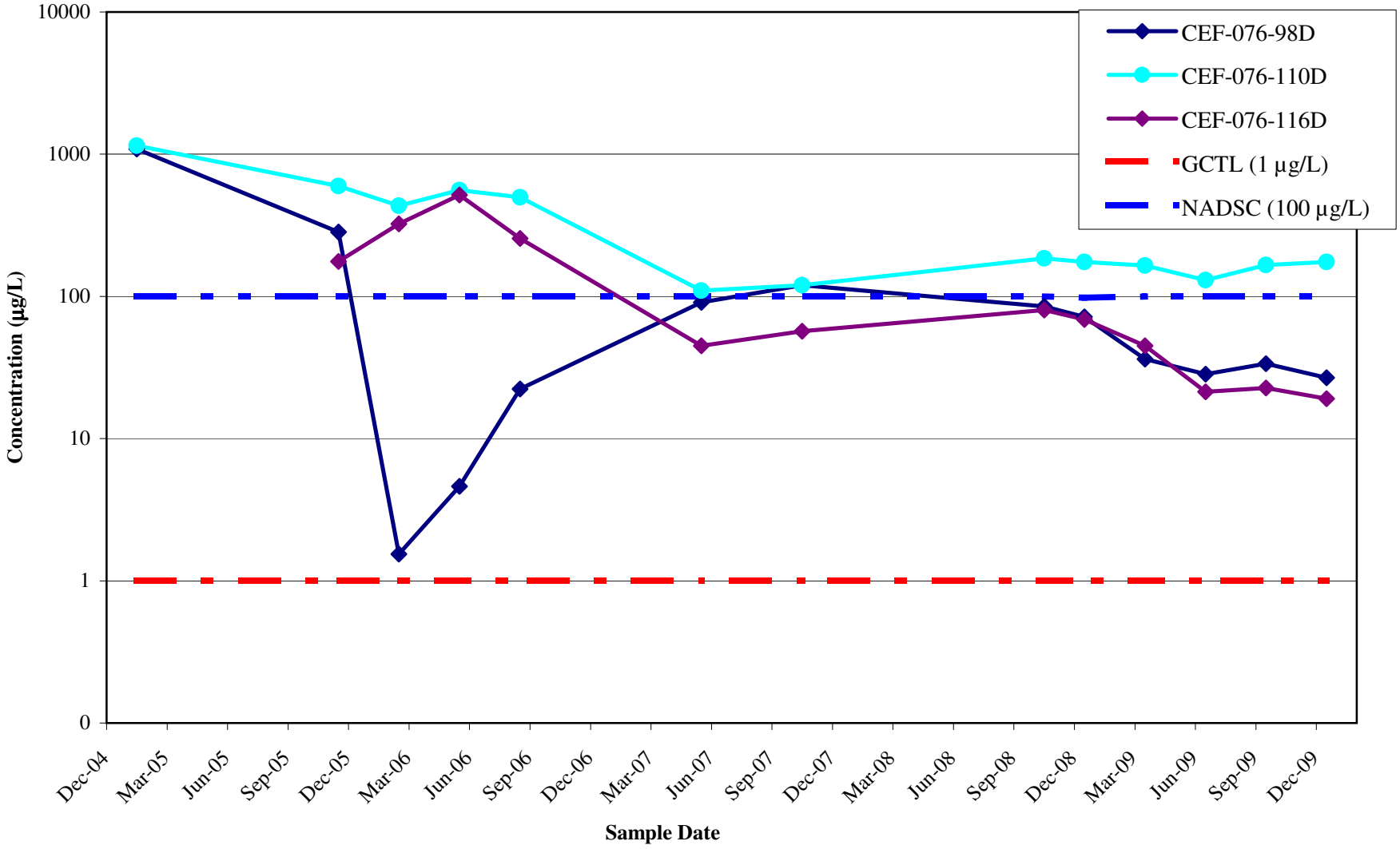


FIGURE 7
Historical Ethylbenzene Concentrations in Select Wells

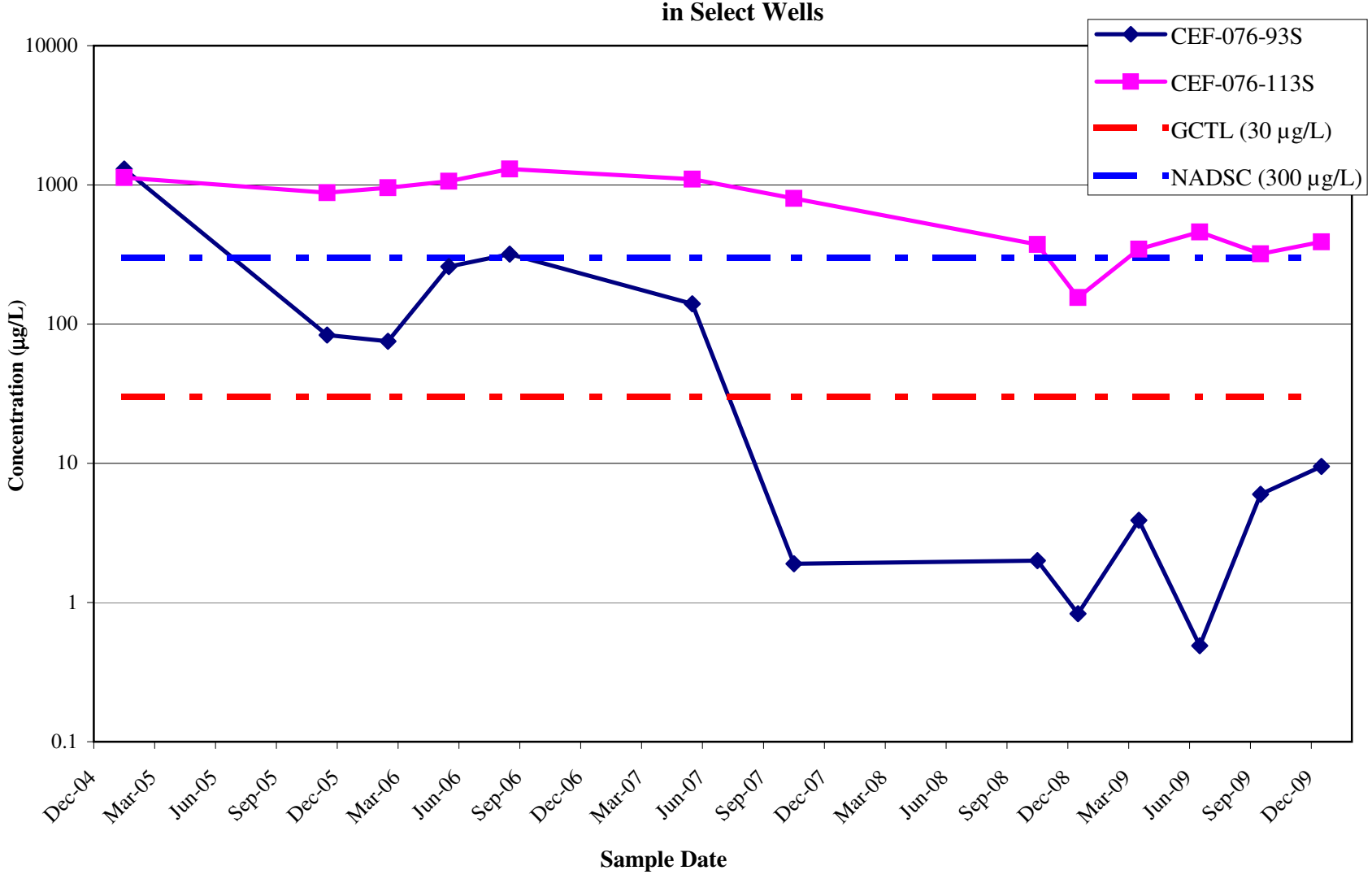


FIGURE 8
Historical Xylenes Concentrations
in Select Wells

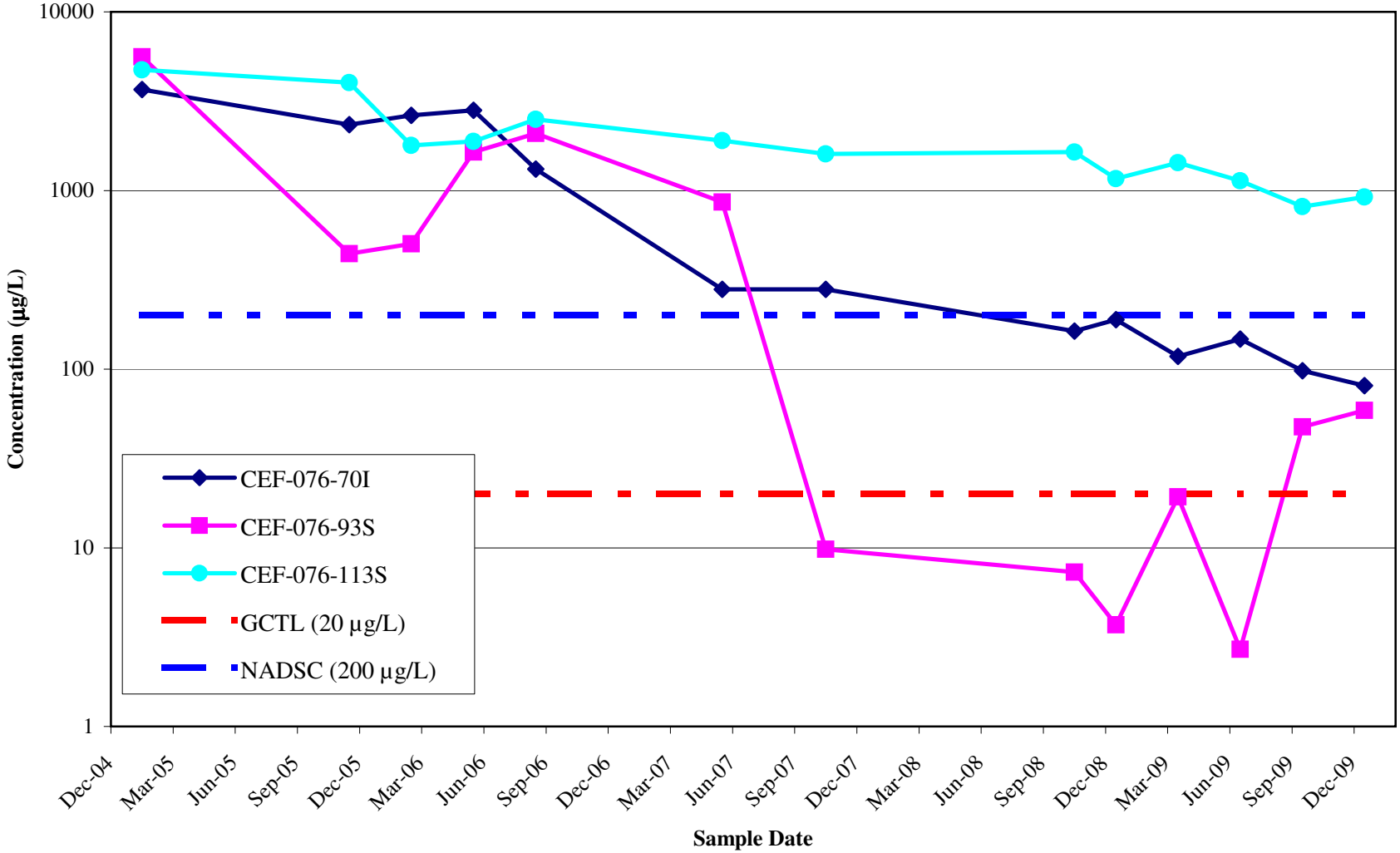
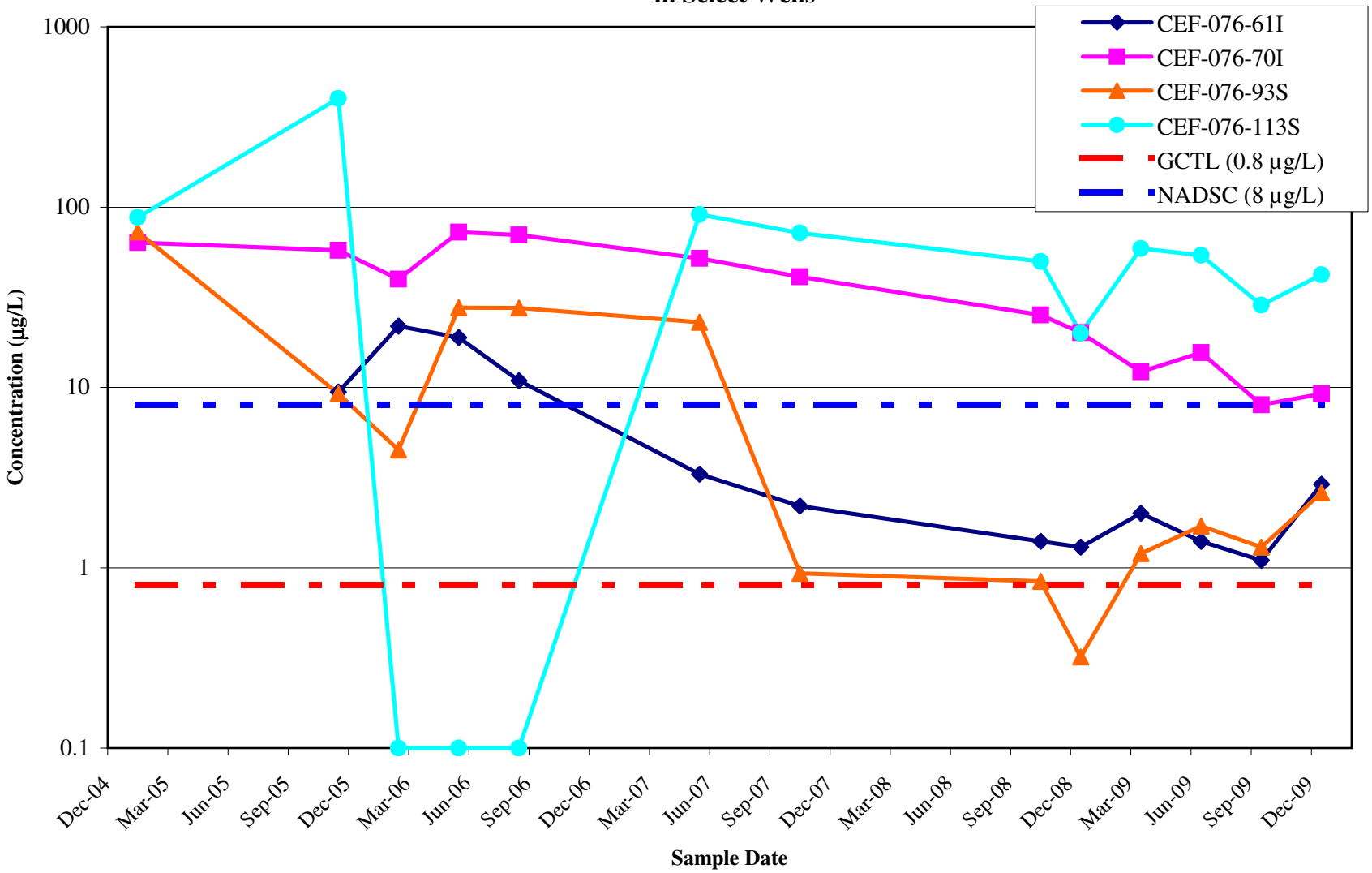
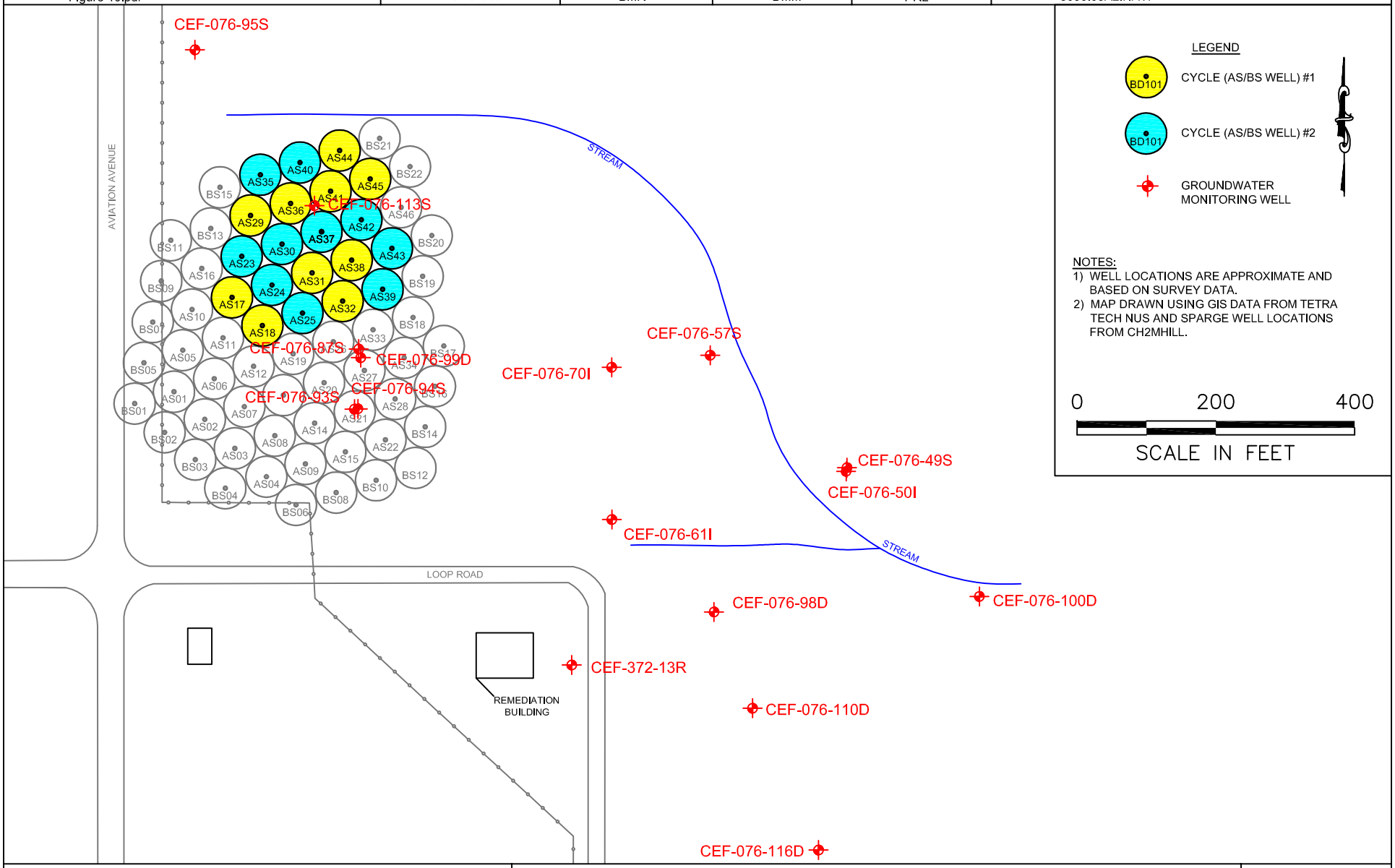


FIGURE 9
Historical Isopropylbenzene Concentrations in Select Wells



FILE	DATE	PROJECT MANAGER	CHECKED BY	DRAFTER	PROJECT NUMBER
Figure 10.pdf	11/12/2009	BMR	DMM	PRL	8030.08A2.NAVF



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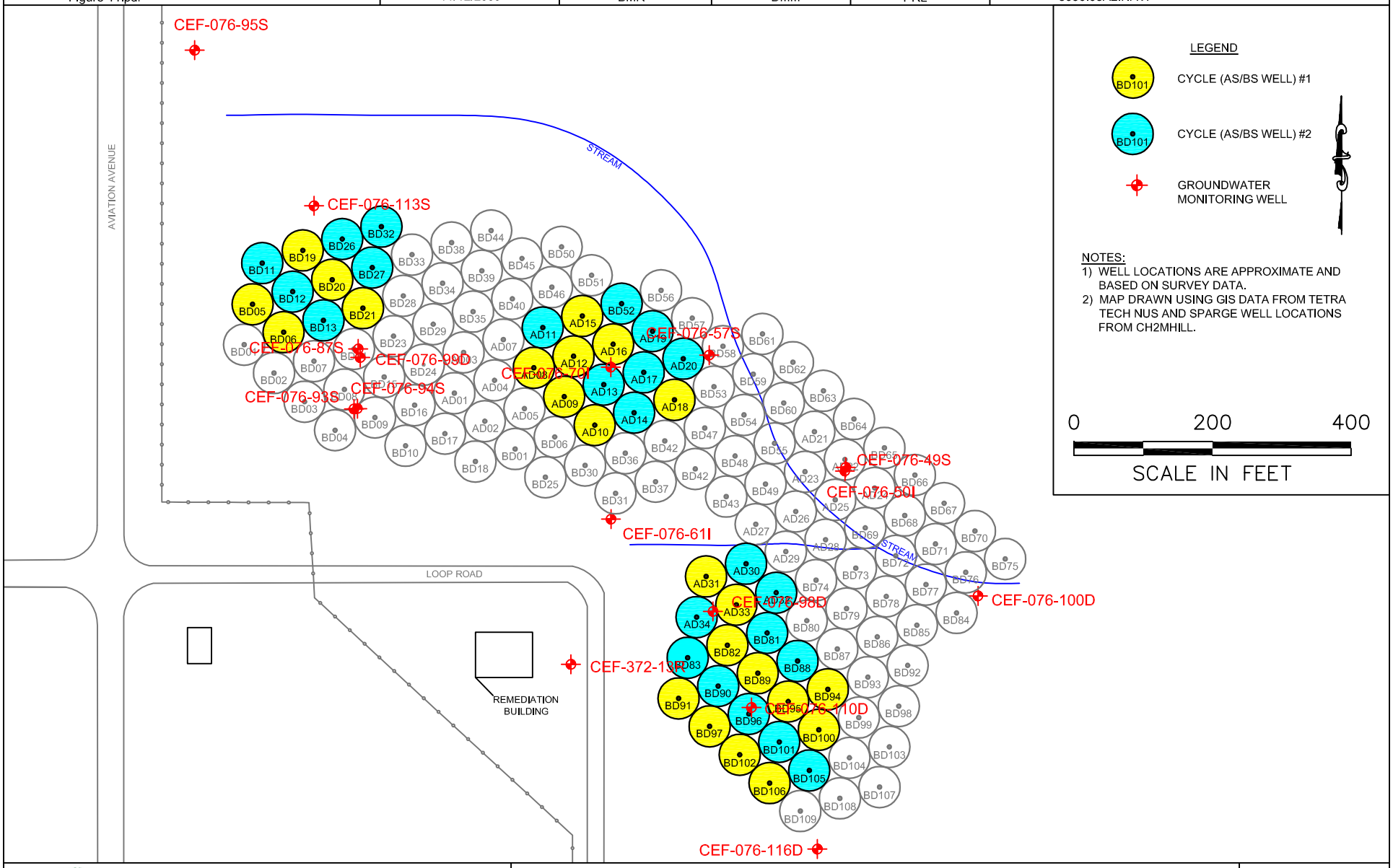
SHALLOW AIR SPARGE WELL LOCATIONS
NORTH FUEL FARM - NAS CECIL FIELD
JACKSONVILLE, FLORIDA
DECEMBER 2009

FIGURE:
10

T:\Project Files\Cecil Field\Cecil Field 2\CAD\NFFbasemap.dwg, Fig10 Dec 09, 5/13/2010 2:19:01 PM, 1:1

FILE	DATE	PROJECT MANAGER	CHECKED BY	DRAFTER	PROJECT NUMBER
Figure 11.pdf	11/12/2009	BMR	DMM	PRL	8030.08A2.NAVF



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DEEP AIR SPARGE WELL LOCATIONS
NORTH FUEL FARM - NAS CECIL FIELD
JACKSONVILLE, FLORIDA
DECEMBER 2009

FIGURE:
11

T:\Project Files\Cecil Field\Cecil Field 2\CAD\NFFbasemap.dwg, Fig11 Dec 09, 5/13/2010 2:19:34 PM, 1:1

TABLES

TABLE 1
GROUNDWATER ELEVATIONS

North Fuel Farm
NAS Cecil Field
Jacksonville, Florida

Well ID	Date Measured	Screen Interval (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
CEF-372-13R	10/22/2007	1.50 - 11.50	81.25 *	6.28	74.97
	10/8/2008			4.84	76.41
	12/15/2008			6.93	74.32
	3/3/2009			7.90 *	73.35
	6/10/2009			4.50 *	76.75
	9/15/2009			4.50 *	76.75
	12/3/2009			8.18 *	73.07
CEF-076-49S	10/22/2007	45 - 50	78.14	6.52	71.62
	10/8/2008			4.72	73.42
	12/15/2008			6.51	71.63
	3/3/2009			7.66	70.48
	6/10/2009			4.35	73.79
	9/15/2009			3.96	74.18
	12/3/2009			7.41	70.73
CEF-076-50I	10/22/2007	75 - 80	78.17	6.38	71.79
	10/8/2008			4.55	73.62
	12/15/2008			6.39	71.78
	3/3/2009			7.61	70.56
	6/10/2009			4.24	73.93
	9/15/2009			3.82	74.35
	12/3/2009			7.30	70.87
CEF-076-57S	10/22/2007	30 - 35	77.74	6.13	71.61
	10/8/2008			4.21	73.53
	12/15/2008			5.98	71.76
	3/3/2009			7.31	70.43
	6/10/2009			3.83	73.91
	9/15/2009			3.44	74.30
	12/3/2009			6.80	70.94
CEF-076-61I	10/22/2007	65 - 70	81.12	9.72	71.40
	10/8/2008			7.61	73.51
	12/15/2008			9.63	71.49
	3/3/2009			11.35	69.77
	6/10/2009			7.53	73.59
	9/15/2009			7.02	74.10
	12/3/2009			10.68	70.44
CEF-076-70I	10/22/2007	65 - 70	78.21	5.85	72.36
	10/8/2008			4.41	73.80
	12/15/2008			6.31	71.90
	3/3/2009			8.44	69.77
	6/10/2009			4.68	73.53
	9/15/2009			4.34	73.87
	12/3/2009			7.80	70.41
CEF-076-93S	10/22/2007	25 - 30	81.59	7.55	74.04
	10/8/2008			6.48	75.11
	12/15/2008			8.55	73.04
	3/3/2009			8.00	73.59
	6/10/2009			5.95	75.64
	9/15/2009			5.09	76.50
	12/3/2009			9.38	72.21
CEF-076-94S	10/22/2007	5 - 15	81.59	9.83	71.76
	10/8/2008			7.40	74.19
	12/15/2008			9.58	72.01
	3/3/2009			11.59	70.00
	6/10/2009			7.49	74.10
	9/15/2009			6.96	74.63
	12/3/2009			10.61	70.98

TABLE 1
GROUNDWATER ELEVATIONS

North Fuel Farm
NAS Cecil Field
Jacksonville, Florida

Well ID	Date Measured	Screen Interval (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
CEF-076-95S	10/22/2007	5 - 15	80.88	6.59	74.29
	10/8/2008			6.45	74.43
	12/15/2008			7.75	73.13
	3/3/2009			7.61	73.27
	6/10/2009			5.46	75.42
	9/15/2009			5.38	75.50
	12/3/2009			8.05	72.83
CEF-076-98D	10/22/2007	105 - 110	81.39	11.53	69.86
	10/8/2008			8.28	73.11
	12/15/2008			10.18	71.21
	3/3/2009			15.48	65.91
	6/10/2009			11.37	70.02
	9/15/2009			8.61	72.78
	12/3/2009			13.14	68.25
CEF-076-99D	10/22/2007	95 - 100	81.69	21.45	60.24
	10/8/2008			8.72	72.97
	12/15/2008			9.85	71.84
	3/3/2009			13.75	67.94
	6/10/2009			9.99	71.70
	9/15/2009			7.48	74.21
	12/3/2009			10.94	70.75
CEF-076-100D	10/22/2007	110 - 115	80.15	8.63	71.52
	10/8/2008			7.33	72.82
	12/15/2008			9.19	70.96
	3/3/2009			10.24	69.91
	6/10/2009			4.08	76.07
	9/15/2009			3.79	76.36
	12/3/2009			7.29	72.86
CEF-076-110D	10/22/2007	105 - 110	82.51	11.90	70.61
	10/8/2008			10.20	72.31
	12/15/2008			12.19	70.32
	3/3/2009			14.08	68.43
	6/10/2009			10.38	72.13
	9/15/2009			9.68	72.83
	12/3/2009			13.18	69.33
CEF-076-113S	10/22/2007	35 - 40	81.22	9.57	71.65
	10/8/2008			7.30	73.92
	12/15/2008			9.21	72.01
	3/3/2009			11.28	69.94
	6/10/2009			8.44	72.78
	9/15/2009			6.87	74.35
	12/3/2009			10.21	71.01
CEF-076-116D	10/22/2007	110 - 115	82.83	11.67	71.16
	10/8/2008			10.40	72.43
	12/15/2008			12.37	70.46
	3/3/2009			15.05	67.78
	6/10/2009			11.38	71.45
	9/15/2009			10.72	72.11
	12/3/2009			14.18	68.65
CEF-076-117D	6/10/2009	105-110	81.78	9.37	72.41
	9/15/2009			8.85	72.93
	12/3/2009			12.24	69.54

Notes:
Data collected prior to 2007 are provided in previous reports
ft bgs - feet below ground surface
ft amsl - feet above mean sea level
* -Top of casing (TOC) was cut therefore it is lower in March 2009
NM - not measured

TABLE 2
FIELD AND NATURAL ATTENUATION PARAMETERS
North Fuel Farm
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	FIELD PARAMETERS						LABORATORY NATURAL ATTENUATION PARAMETERS			
		pH (SU)	Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Oxidation - Reduction Potential (mV)	Sulfate (mg/L)	Sulfide (mg/L)	Total Organic Carbon (mg/L)	Inorganic Carbon (mg/L)
GCTL (mg/L)		NE	NE	NE	NE	NE	NE	250	NE	NE	NE
NADSC (mg/L)		NE	NE	NE	NE	NE	NE	2500	NE	NE	NE
CEF-372-13R	3/3/2009	6.97	310	17.5	2.07 *	17.43	99.4	NA	NA	NA	NA
	6/10/2009	6.99	324	29.9	1.38	25.21	93.8	NA	NA	NA	NA
	9/15/2009	7.03	330	19.4	4.20 *	26.95	108	NA	NA	NA	NA
	12/3/2009	7.03	516	8.4	1	24.52	103.1	NA	NA	NA	NA
CEF-076-49S	3/3/2009	2.42	2336	7.75	0.7	22.02	451.2	**2260**	<0.6	**27.7**	**3.7**
	6/10/2009	3.07	2595	2.56	1.29	26.14	427.1	**2430**	<0.60	**16.1**	**12.9**
	9/15/2009	2.87	2520	2.82	0.8	25.71	412.1	**2760**	**0.64 I**	**17.5**	**15.3**
	12/3/2009	2.38	2629	3.20	3	24.38	399.3	**3380**	**3.9**	**19.5**	**9.2**
CEF-076-50I	3/3/2009	2.68	3453	2.19	0.60 *	22.51	287.8	NA	NA	NA	NA
	6/10/2009	3.41	3972	2.51	1.12	26.40	286.0	NA	NA	NA	NA
	9/15/2009	3.02	3995	2.94	0.57 *	26.53	364.8	NA	NA	NA	NA
	12/3/2009	2.58	3652	5.67	0.7	25.30	223.3	NA	NA	NA	NA
CEF-076-57S	3/3/2009	2.72	1403	3.8	0.4	18.85	426.6	**790**	**6.2**	**13.1**	**2.2**
	6/10/2009	3.04	23.09	8.97	1.12	25.06	415.0	**1480**	<0.60	**11.8**	**2.7**
	9/15/2009	2.68	2812	1.60	0.50	25.67	417.2	**1790**	**0.66 I**	**12.2**	**6.9**
	12/3/2009	2.38	2188	2.84	0.8	23.64	374.2	**1990**	**3.3**	**12.5**	**2.7**
CEF-076-61I	3/3/2009	2.33	7308	45	0.8	17.84	276.1	**8000**	**1.8**	**54.9**	**1.0 I**
	6/10/2009	2.61	7281	249.0	0.69	24.41	37	**7510**	<0.60	**43.4**	**18.8**
	9/15/2009	2.77	5571	38.6	0.8	25.33	300.8	**5970**	<0.60	**36.5**	**22.2**
	12/3/2009	2.37	5247	11.3	1	23.05	239.1	**6130**	**1.5**	**35.9**	**14.0**
CEF-076-70I	3/3/2009	2.91	5855	31	0.34 *	21.94	309.3	NA	NA	NA	NA
	6/10/2009	3.35	5898	4.54	1.43	26.70	219.2	NA	NA	NA	NA
	9/15/2009	2.79	7607	10.40	0.21*	28.00	256.4	NA	NA	NA	NA
	12/3/2009	2.20	9675	10.00	0.8	24.50	244.9	NA	NA	NA	NA
CEF-076-93S	3/3/2009	5.98	369	29	0.37 *	18.87	-42.6	NA	NA	NA	NA
	6/10/2009	4.22	287	54.4	1.30	25.67	-38.1	NA	NA	NA	NA
	9/15/2009	5.88	259	90	0.21*	28.04	-19.5	NA	NA	NA	NA
	12/3/2009	5.88	272	59.5	1	24.37	-67.9	NA	NA	NA	NA
CEF-076-94S	3/3/2009	4.84	299	7.4	1.05 *	22.90	238.1	NA	NA	NA	NA
	6/10/2009	4.67	297	21.2	0.58	26.28	19.1	NA	NA	NA	NA
	9/15/2009	5.77	367	20.0	0.30 *	28.67	58.8	NA	NA	NA	NA
	12/3/2009	5.93	372	65.0	1	25.57	22.4	NA	NA	NA	NA
CEF-076-95S	3/3/2009	4.92	85	43	1.0	15.93	280.9	**15.3**	**39.0**	**28.7**	**6.8**
	6/10/2009	5.66	133	45.1	2.15	25.09	-23.6	**9.0**	<0.60	**6.3**	**20.2**
	9/15/2009	5.97	141	28.4	0.8	26.02	12.1	**9.9**	**1.8**	**9.6**	**18.9**
	12/3/2009	5.06	76	50.9	1	22.19	16.3	**10.7**	**1.4**	**10**	**12.1**

TABLE 2
FIELD AND NATURAL ATTENUATION PARAMETERS
North Fuel Farm
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	FIELD PARAMETERS						LABORATORY NATURAL ATTENUATION PARAMETERS			
		pH (SU)	Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Oxidation - Reduction Potential (mV)	Sulfate (mg/L)	Sulfide (mg/L)	Total Organic Carbon (mg/L)	Inorganic Carbon (mg/L)
GCTL (mg/L)		NE	NE	NE	NE	NE	NE	250	NE	NE	NE
NADSC (mg/L)		NE	NE	NE	NE	NE	NE	2500	NE	NE	NE
CEF-076-98D	3/3/2009	3.36	6470	316	1.10 *	18.97	211.8	NA	NA	NA	NA
	6/10/2009	3.75	7822	4.38	0.28	27.64	92.5	NA	NA	NA	NA
	9/15/2009	3.39	8132	3.66	0.01*	27.24	148.6	NA	NA	NA	NA
	12/3/2009	2.99	8299	10.40	0.3	23.46	72.4	NA	NA	NA	NA
CEF-076-99D	3/3/2009	6.37	3794	3	0.3	25.01	14.5	**1530**	<0.6	**81.7**	**30.3**
	6/10/2009	6.22	2660	1.37	0.31	29.80	-42.2	**1250**	<0.60	**14.8**	**56.8**
	9/15/2009	6.42	2945	3.98	0.25	30.12	-84.9	**1720**	**0.79 I**	**16.7**	**95.3**
	12/3/2009	6.44	3005	3.07	0.2	26.81	-26.2	**1570**	**2.8**	**25.2**	**111**
CEF-076-100D	3/3/2009	5.78	5107	8.93	0.05	18.49	3.9	**3010**	**12.2**	**53.5**	**21.6**
	6/10/2009	6.05	3281	30.20	0.56	24.86	-42.0	**2660**	<0.60	**9.0**	**38.2**
	9/15/2009	5.85	2809	18.00	0	25.53	-30.2	**2620**	**14.2**	**9.5**	**42.5**
	12/3/2009	5.94	3645	6.41	0	23.19	-18.2	**2100**	**3.9**	**21.4**	**46**
CEF-076-110D	3/3/2009	2.80	8189	7.82	0.71 *	20.08	304.1	NA	NA	NA	NA
	6/10/2009	3.06	6179	7.99	0.59	24.30	290.5	NA	NA	NA	NA
	9/15/2009	2.73	6243	9.08	8.15 *	25.42	375.7	NA	NA	NA	NA
	12/3/2009	2.50	6664	13.40	1	22.09	347.1	NA	NA	NA	NA
CEF-076-113S	3/3/2009	3.29	3375	13	0.39 *	21.50	109.3	NA	NA	NA	NA
	6/10/2009	3.26	3072	6.37	0.61	26.00	127.1	NA	NA	NA	NA
	9/15/2009	3.11	2716	8.14	0.79 *	26.80	25.6	NA	NA	NA	NA
	12/3/2009	3.12	2579	7.45	0.8	23.75	117.2	NA	NA	NA	NA
CEF-076-116D	3/3/2009	2.85	12787	4.87	0.2	20.15	136.1	**13800**	<0.60	**55.8**	**1.4 I**
	6/10/2009	3.09	10490	16	5.28	25.42	207.1	**13800**	<0.60	**45.6**	**14.5**
	9/15/2009	3.24	9286	1	1	26.13	162.6	**12100**	**1.6**	**49.9**	**9.0**
	12/3/2009	2.91	8605	1.12	0.80	23.81	178.3	**14900**	**1.4**	**49.7**	**6.1**
CEF-076-117D	6/10/2009	7.21	28	12	5.01	26.11	-312.1	NA	NA	NA	NA
	9/15/2009	4.79	107	6	1	26.04	210.9	**1.7 I**	**1**	**1.7**	**6.3**
	12/3/2009	5.02	24	20.6	1	22.29	-30.3	**1.7 I**	**2.0**	**5.5**	**10.5**

NOTES:

Data collected prior to 2009 are provided in previous reports
GCTL - Groundwater Cleanup Target Level
NADSC - Natural Attenuation Default Source Concentration
SU - Standard Units
µS/cm - Microsiemens per centimeter
NTU - Nephelometric turbidity units
mg/L - Milligrams per liter
°C - Degrees Celsius

NE - Not established
NA - Not analyzed
ND - Concentration not detected above the method detection limit, limit not available
J - Concentration estimated below the reporting limit
* - DO readings from field meter, not Chemetrics Kits
mV - Millivolts
Exceeds the GCTL
Exceeds the GCTL and NADSC

TABLE 3
LABORATORY RESULTS FOR VOCS, PAHS AND TRPH
North Fuel Farm
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	VOLATILE ORGANIC COMPOUNDS (µg/L)												POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)						TRPH (C8 - C40) (µg/L)
		Benzene	Ethylbenzene	Toluene	Xylenes, total	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene (TCE)	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene chloride	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene by Method 8310	Chrysene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	
GCTL (µg/L)		1	30	40	20	70	3	3	0.8	NE	5	10	10	14	4.8	28	28	210	210	5000
NADSC (µg/L)		100	300	400	200	700	30	30	8	NE	50	100	100	140	48	280	280	2100	2100	50000
CEF-372-13R	1/24/2005	ND	**18.3**	ND	**7.18**	ND	ND	ND	**8.22**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8480 JB**
	11/18/2005	ND	ND	ND	ND	ND	ND	ND	**1.92 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**436 JB**
	2/13/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.86 JB**	ND	ND	ND	ND	ND	ND	ND	ND	**491 JB**
	5/15/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**901**
	8/15/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**190 JB**
	5/22/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/23/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/9/2008	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	12/16/2008	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	**380**
	3/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	**335**
	5/24/2007	<0.40	<0.43	<0.35	<0.78	ND	ND	ND	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	ND	ND	ND
	5/30/2007	<0.40	<0.43	<0.35	<0.78	ND	ND	ND	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	ND	ND	ND
	6/10/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	9/15/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	12/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**195 I**
CEF-076-49S	11/17/2005	**2.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/16/2006	**1.61**	ND	ND	**8.23**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/16/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/17/2006	ND	ND	ND	**8.17**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/29/2007	**19**	**0.19 J**	ND	**2.9**	ND	ND	ND	**0.5 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**170 J**
	10/26/2007	**1.5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.03 J**	**0.11 J**	ND	ND	ND
	10/9/2008	**52.3**	**0.67 I**	<0.35	**12.5**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**1.6 I**	**0.45 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**215**
	12/15/2008	**1.3**	<0.43	<0.35	**1.94 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**0.22 I**	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**196 I**
	3/3/2009	**1.0**	<0.43	<0.35	**1.65 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<0.61	**0.3**	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	**279**
	5/30/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	6/10/2009	**1.0**	<0.43	<0.35	**1.96**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**0.30 I**	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**199**
	9/15/2009	**1.1**	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	12/3/2009	**1.3**	<0.43	<0.35	**2.11 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**220 I**

TABLE 3
LABORATORY RESULTS FOR VOCS, PAHS AND TRPH
North Fuel Farm
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	VOLATILE ORGANIC COMPOUNDS (µg/L)												POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)						TRPH (C8 - C40) (µg/L)
		Benzene	Ethylbenzene	Toluene	Xylenes, total	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene (TCE)	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene chloride	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene by Method 8310	Chrysene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	
GCTL (µg/L)		1	30	40	20	70	3	3	0.8	NE	5	10	10	14	4.8	28	28	210	210	5000
NADSC (µg/L)		100	300	400	200	700	30	30	8	NE	50	100	100	140	48	280	280	2100	2100	50000
CEF-076-50I	1/25/2005	**318**	ND	ND	**1910**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3310 JB**
	11/21/2005	**3360 J**	ND	ND	**2400**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**3080 JB**
	2/14/2006	**5020**	**71.2 J**	ND	**586**	ND	ND	ND	ND	ND	**277 JB**	ND	ND	ND	ND	ND	ND	ND	ND	**1840 JB**
	5/15/2006	**7200**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**1050**
	8/15/2006	**2230 J**	**15.8 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**183 JB**
	5/29/2007	**20**	**0.28 J**	ND	4.8	ND	ND	ND	**0.31 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**190 J**
	10/26/2007	**67**	**0.57 J**	**0.16 J**	**6.6 J**	ND	**0.3 J**	ND	**0.15 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/9/2008	**3.6**	<0.43	<0.35	**2.7 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**0.32 I**	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	**237**
	12/15/2008	**82.4**	**0.80 I**	<0.35	**18.2**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**1.6 I**	**0.43 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**259**
	3/3/2009	**67.3**	**0.77 I**	<0.35	**15.1**	<0.20	<0.34	<0.32	**0.21 I**	<0.32	<0.61	**1.4 I**	**0.33 I**	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	**260**
	6/10/2009	**24.6**	**0.53 I**	<0.35	**12.2**	<0.20	**0.38 I**	<0.32	**0.28 I**	<0.32	<1.0	**2.2**	**0.69 I**	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	**245**
	9/15/2009	**19.9**	<0.43	<0.35	**6.7 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**0.86 I**	**0.26 I**	<0.95	<0.48	<0.48	<0.48	<0.95	<0.48	**249**
	12/3/2009	**54.3**	**0.47 I**	<0.35	**8.9**	<0.20	<0.34	<0.32	**0.20 I**	<0.32	<1.0	**1.2 I**	**0.39 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**365**
CEF-076-57S	11/17/2005	**33.6**	**11.7**	ND	ND	ND	ND	ND	**3.46 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/15/2006	**81.8**	**6.2**	ND	ND	ND	ND	ND	**2.81 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/17/2006	**23.7**	**2.01 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/17/2006	**7.02**	**1.72 J**	ND	**3.21 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/23/2007	**1.8**	**0.31 J**	ND	**1.5**	ND	ND	ND	**0.28 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**240 J**
	10/26/2007	**2.9**	**0.36 J**	ND	**2.2 J**	ND	ND	ND	**0.27 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/10/2008	**3.7**	**0.51 I**	<0.35	**2.19 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	**0.27 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**255**
	12/15/2008	**3.5**	**0.69 I**	<0.35	**1.5**	<0.20	<0.34	<0.32	**0.27 I**	<0.32	<1.0	**0.40 I**	**0.28 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**206**
	3/3/2009	**3.9**	**1.6**	<0.35	**4**	<0.20	<0.34	<0.32	**0.37 I**	<0.32	<1.0	**1.0 I**	**0.45 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<170
	6/10/2009	**3.3**	**1.6**	<0.35	**5.8**	<0.20	<0.34	<0.32	**0.48 I**	<0.32	<1.0	**1.4 I**	**0.69 I**	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	9/15/2009	**1.0**	<0.43	<0.35	**2.02 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**0.38 I**	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**198 I**
	12/3/2009	**0.61 I**	**0.49 I**	<0.35	**2.68 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**0.55 I**	**0.27 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**177 I**

TABLE 3
LABORATORY RESULTS FOR VOCS, PAHS AND TRPH
North Fuel Farm
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	VOLATILE ORGANIC COMPOUNDS (µg/L)												POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)						TRPH (C8 - C40) (µg/L)
		Benzene	Ethylbenzene	Toluene	Xylenes, total	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene (TCE)	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene chloride	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene by Method 8310	Chrysene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	
GCTL (µg/L)		1	30	40	20	70	3	3	0.8	NE	5	10	10	14	4.8	28	28	210	210	5000
NADSC (µg/L)		100	300	400	200	700	30	30	8	NE	50	100	100	140	48	280	280	2100	2100	50000
CEF-076-61I	11/17/2005	ND	36.9 J	ND	73.8	ND	ND	ND	9.41 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/15/2006	1.36	22.8	ND	24.2	ND	ND	ND	21.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/17/2006	1.58	10.9	ND	18	ND	ND	ND	18.9	ND	ND	ND	ND	ND	ND	24.2 J	ND	ND	ND	ND
	8/16/2006	ND	3.06 J	ND	5.2	ND	ND	ND	10.9 J	ND	3.02 JB	ND	ND	ND	ND	11 J	ND	ND	ND	ND
	5/22/2007	9.2	1.2	ND	4.8	ND	ND	ND	3.3	ND	ND	ND	ND	ND	ND	1.4	2.2	ND	ND	1100
	10/26/2007	8.8	1.2	ND	4.8 J	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	1.8 J	2.6 J	0.29 J	0.022 J	760
	10/10/2008	3.9	1.7	<0.35	6.4	<0.20	<0.34	<0.32	1.4	<0.32	<1.0	21.4	7	8.4	<0.49	1.3 I	1.8 I	<0.97	<0.49	445
	12/16/2008	3.8	1.5	<0.35	6.2	<0.20	<0.34	<0.32	1.3	<0.32	<1.0	15.6	5.3	6.3	<0.48	0.93 I	1.3 I	<0.96	<0.48	459
	3/3/2009	7.4	1.8	<0.35	7	<0.20	<0.34	<0.32	2	<0.32	<1.0	20.5	6.8	7.9	<0.48	1.1 I	1.9	<0.96	<0.48	529
	6/10/2009	6.9	1.3	<0.35	6.1	<0.20	<0.34	<0.32	1.4	<0.32	<1.0	14.6	5.4	4.2	<0.48	0.71 I	1.0 I	<0.96	<0.48	342
	9/15/2009	13.3	1.3	<0.35	5.8	<0.20	<0.34	<0.32	1.1	<0.32	<1.0	14.7	4.5	3	<0.48	<0.48	0.72 I	<0.96	<0.48	372
	12/3/2009	15.9	3.6	<0.35	11.8	<0.20	<0.34	<0.32	2.9	<0.32	<1.0	25.3	8.6	8.2	<0.48	1.0 I	1.7 I	<0.96	<0.48	621
CEF-076-70I	1/25/2005	834	50.3	11.1 J	3680	ND	ND	ND	63.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9210 JB
	11/21/2005	300	ND	ND	2340	ND	ND	ND	57.5 JB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	496 B
	2/14/2006	206	ND	ND	2630	ND	ND	ND	39.9 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3780 JB
	5/11/2006	231	ND	ND	2810	ND	ND	ND	72.6 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5170
	8/15/2006	70.8	ND	ND	1320	ND	ND	ND	70.1	ND	10.4 JB	ND	ND	ND	ND	ND	ND	ND	ND	1640 JB
	5/23/2007	1300	6.6 J	ND	280	ND	ND	ND	52	ND	ND	ND	ND	ND	ND	0.12 J	ND	ND	ND	1700 J
	10/25/2007	1800	7.1 J	ND	280 J	ND	ND	ND	41	ND	14 J	ND	ND	ND	ND	0.2	0.16	ND	ND	1600
	10/9/2008	566	9.8	<1.8	163.4	<1	<1.7	<1.6	25.2	<1.6	31.8 V	113	39	17.1	<0.48	<0.48	<0.48	<0.96	<0.48	659
	12/15/2008	400	10.1	<3.5	189.4	<2	<2.4	<3.2	20.1	<3.2	38.4 I	106	31.6	24.7	<0.49	<0.49	<0.49	<0.98	<0.49	655
	3/3/2009	178	7.4	<1.8	118	<1	<1.7	<1.6	12.2	<1.6	8.5 V	70.9	21.7	12.4	<0.49	<0.48	<0.48	<0.96	<0.48	592
	6/10/2009	179	9.7	<1.8	147.5	<1.0	<1.7	<1.6	15.6	<1.6	<5.0	90.6	30.7	12.1	<0.48	<0.48	<1.9	<0.96	<0.48	458
	9/15/2009	108	5.3	<0.7	98	<0.40	<0.68	<0.64	8	<0.64	<2.0	62.4	19.1	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	481
	12/3/2009	83.3	6.3	<0.35	80.9	<0.20	<0.34	<0.32	9.2	0.41 I	<1.0	49.1	16.9	9.8	<0.48	<0.48	<0.48	<0.96	<0.48	335

TABLE 3
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North Fuel Farm
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	VOLATILE ORGANIC COMPOUNDS (µg/L)												POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)						TRPH (C8 - C40) (µg/L)
		Benzene	Ethylbenzene	Toluene	Xylenes, total	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene (TCE)	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene chloride	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene by Method 8310	Chrysene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	
GCTL (µg/L)		1	30	40	20	70	3	3	0.8	NE	5	10	10	14	4.8	28	28	210	210	5000
NADSC (µg/L)		100	300	400	200	700	30	30	8	NE	50	100	100	140	48	280	280	2100	2100	50000
CEF-076-93S	1/24/2005	**1890**	**1300**	**7800**	**5610**	ND	ND	ND	**72.8 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**12100 JB**
	11/18/2005	**27.2**	**83.5**	**235**	**443**	ND	ND	ND	**9.22 J**	ND	**7.85 JB**	ND	ND	ND	ND	ND	ND	ND	ND	**1620 JB**
	2/13/2006	**11.8**	**75.4**	**193**	**502**	ND	ND	ND	**4.5 J**	ND	ND	ND	ND	ND	ND	**8.96 J**	**6.46 J**	ND	ND	**112 JB**
	5/10/2006	**37.9**	**259**	**607**	**1640**	ND	ND	ND	**27.7 J**	ND	ND	ND	ND	ND	ND	**18**	ND	ND	ND	**7790 J**
	8/14/2006	**23.1**	**318**	**515**	**2090**	ND	ND	ND	**27.6**	ND	**14 JB**	ND	ND	ND	ND	**31.9**	ND	ND	ND	**4520 JB**
	5/15/2007	**26**	**140**	**320 JB**	**860**	ND	ND	ND	**23**	ND	**2.3 JB**	ND	ND	ND	ND	**6.1**	**6.8**	ND	ND	**5300**
	10/24/2007	ND	**1.9**	**1.4 JB**	**9.8 J**	ND	ND	ND	**0.93**	ND	ND	ND	ND	ND	**0.023 J**	**0.17**	**0.23**	**0.05**	**0.04 J**	**160 J**
	10/10/2008	**0.44 I**	**2.0**	**1.7**	**7.3**	<0.21	<0.34	<0.32	**0.84 I**	<0.32	<1.0	**1.8 I**	**0.71 I**	<0.96	<0.48	**0.49 I**	**1.1 I**	<0.96	<0.48	**243**
	12/15/2008	<0.40	**0.83 I**	**0.80 I**	**3.7**	<0.21	<0.34	<0.32	**0.32 I**	<0.32	<1.0	**0.37 I**	**0.23 I**	**1.1 I**	<0.48	**0.65**	**1.6 I**	<0.96	<0.48	**244**
	3/3/2009	<0.40	**3.90**	**1.50**	**19.3**	<0.21	<0.34	<0.32	**1.2**	<0.32	<1.0	**1.8 I**	**0.52 I**	**1.1 I**	<0.48	<0.48	**0.75 I**	<0.96	<0.48	**173**
	6/10/2009	<0.40	**0.49 I**	<0.35	**2.7**	<0.21	<0.34	<0.32	**1.7**	**0.37 I**	<1.0	**1.1 I**	**0.80 I**	<0.96	<0.48	<0.48	**0.60 I**	<0.96	<0.48	<160
	9/15/2009	**1.1**	**6.0**	**3.8**	**47.5**	<0.20	<0.34	<0.32	**1.3**	<0.32	<1.0	**4.7**	**2.5**	**1.5 I**	<0.48	**0.71 I**	**1.4 I**	<0.96	<0.48	**299**
	12/3/2009	**0.50 I**	**9.5**	**4.9**	**58.7**	<0.20	<0.34	<0.32	**2.6**	**0.49 I**	<1.0	**8.9**	**4.2**	**2.0**	<0.48	**1.1 I**	**2.1**	<0.96	<0.48	**356**
CEF-076-94S	1/25/2005	**3040**	**1310**	**3800**	**4850**	ND	ND	ND	**86.5 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**15500 JB**
	11/18/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**404 JB**
	2/13/2006	**0.993 J**	ND	ND	ND	ND	ND	ND	ND	ND	**2.98 JB**	ND	ND	ND	ND	ND	ND	ND	ND	**200 JB**
	5/10/2006	**1.6**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**304**
	8/14/2006	ND	ND	ND	ND	**1.24 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**97 JB**
	5/15/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.5 JB**	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/24/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/10/2008	**0.46 I**	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**211 I**
	12/15/2008	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**215 I**
	3/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	**238**
	6/10/2009	**1.5**	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**182**
	9/15/2009	**1.9**	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.95	<0.48	**291**
	12/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**294**

TABLE 3
LABORATORY RESULTS FOR VOCS, PAHS AND TRPH
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NAS Cecil Field
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Well ID	Sample Date	VOLATILE ORGANIC COMPOUNDS (µg/L)												POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)						TRPH (C8 - C40) (µg/L)
		Benzene	Ethylbenzene	Toluene	Xylenes, total	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene (TCE)	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene chloride	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene by Method 8310	Chrysene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	
GCTL (µg/L)		1	30	40	20	70	3	3	0.8	NE	5	10	10	14	4.8	28	28	210	210	5000
NADSC (µg/L)		100	300	400	200	700	30	30	8	NE	50	100	100	140	48	280	280	2100	2100	50000
CEF-076-95S	11/16/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/14/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/16/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/16/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.54 JB**	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/25/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/25/2007	ND	ND	**0.61 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**180 J**
	10/9/2008	<0.40	<0.43	**33.8**	<0.78	<0.20	<0.34	<0.22	<0.20	**31.3**	<0.61	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**627**
	12/16/2008	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.22	<0.20	**31.3**	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	<170
	3/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.22	<0.20	**31.3**	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	6/10/2009	<0.40	<0.43	**4.4**	<0.78	<0.20	<0.34	<0.22	<0.20	**7.3**	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	9/15/2009	<0.40	<0.43	**0.37 I**	<0.78	<0.20	<0.34	<0.32	<0.20	**1.4**	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	12/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	**445**
CEF-076-98D	1/25/2005	**1090 J**	**8.33 J**	ND	**62.3**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**811 B**
	11/21/2005	**283**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**9340 B**
	2/14/2006	**1.54**	ND	ND	ND	ND	ND	ND	ND	ND	**2.41 JB**	ND	ND	ND	ND	ND	ND	ND	ND	**82.8 JB**
	5/11/2006	**4.62**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**312 J**
	8/15/2006	**22.3**	ND	ND	**6.82**	ND	ND	ND	ND	ND	**1.05 JB**	ND	ND	ND	ND	ND	ND	ND	ND	**137 JB**
	5/25/2007	**91**	**0.27 J**	ND	**7.2**	ND	ND	ND	**0.32 J**	ND	ND	ND	ND	ND	ND	**0.02 J**	**0.037 J**	ND	ND	**330 J**
	10/24/2007	**120**	**0.38 J**	**0.22 JB**	**8.8 J**	ND	ND	ND	**0.24 J**	ND	ND	ND	ND	ND	ND	ND	**0.046 J**	ND	ND	**160 J**
	10/9/2008	**85**	**0.67 I**	<0.35	**5.8 I**	<0.20	<0.34	<0.32	**0.25 I**	<0.32	<1.0	**2.4**	**0.75 I**	**1.7 I**	<0.48	<0.48	<0.48	<0.96	<0.48	**231 I**
	12/16/2008	**71.7**	**0.94 I**	<0.35	**8.7**	<0.20	<0.34	<0.32	**0.28 I**	<0.32	<1.0	**2.7**	**0.78 I**	**2.3**	<0.48	<0.48	<0.48	<0.96	<0.48	**239 I**
	3/3/2009	**36.2**	**0.58 I**	<0.35	**4.2**	<0.20	<0.34	<0.32	<0.2	<0.32	<1.0	**1.6 I**	**0.49 I**	**1.2 I**	<0.48	<0.48	<0.48	<0.96	<0.48	**364**
	6/10/2009	**28.4**	**0.49 I**	<0.35	**4.7**	<0.20	<0.34	<0.32	<0.2	<0.32	<1.0	**1.7 I**	**0.57 I**	**0.97 I**	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	9/15/2009	**33.7**	<0.43	<0.35	**3.54 I**	<0.20	<0.34	<0.32	<0.2	<0.32	<1.0	**0.66 I**	**0.22 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**265**
	12/3/2009	**26.8**	**0.44 I**	<0.35	**4.5 I**	<0.20	<0.34	<0.32	<0.2	<0.32	<1.0	**1.4 I**	**0.37 I**	**1.0 I**	<0.48	<0.48	<0.48	<0.96	<0.48	**333**

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Well ID	Sample Date	VOLATILE ORGANIC COMPOUNDS (µg/L)												POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)						TRPH (C8 - C40) (µg/L)
		Benzene	Ethylbenzene	Toluene	Xylenes, total	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene (TCE)	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene chloride	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene by Method 8310	Chrysene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	
GCTL (µg/L)		1	30	40	20	70	3	3	0.8	NE	5	10	10	14	4.8	28	28	210	210	5000
NADSC (µg/L)		100	300	400	200	700	30	30	8	NE	50	100	100	140	48	280	280	2100	2100	50000
CEF-076-99D	11/16/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/15/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/17/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/16/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	**2.62 JB**	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/22/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/24/2007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/9/2008	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**190 I**
	12/16/2008	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.95	<0.48	**182 I**
	3/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.95	<0.48	<160
	6/10/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.95	<0.48	**245**
	9/15/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.95	<0.48	**186 I**
	12/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**255**
CEF-076-100D	11/17/2005	**23.2**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/16/2006	**5**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/16/2006	**1.27**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/17/2006	**1.07**	ND	ND	ND	ND	ND	**2.06 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/29/2007	**0.12 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0.019 JB**	ND	ND	ND
	10/25/2007	**0.31 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/9/2008	<0.40	<0.43	<0.35	<0.78	<0.20	<0.24	<0.32	<0.20	<0.32	<0.61	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	12/16/2008	<0.40	<0.43	<0.35	<0.78	<0.20	<0.24	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	3/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.24	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	5/30/2007	ND	<0.43	<0.35	<0.78	ND	ND	ND	<0.20	<0.32	<1.0	<0.22	<0.20	<0.95	<0.48	<0.48	<0.48	ND	ND	<160
	6/10/2009	**0.47 I**	<0.43	<0.35	<0.78	<0.20	<0.24	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	9/15/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**249**
	12/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	**170**

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Well ID	Sample Date	VOLATILE ORGANIC COMPOUNDS (µg/L)												POLYCYCLIC AROMATIC HYDROCARBONS (µg/L)						TRPH (C8 - C40) (µg/L)
		Benzene	Ethylbenzene	Toluene	Xylenes, total	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene (TCE)	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene chloride	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene by Method 8310	Chrysene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	
GCTL (µg/L)		1	30	40	20	70	3	3	0.8	NE	5	10	10	14	4.8	28	28	210	210	5000
NADSC (µg/L)		100	300	400	200	700	30	30	8	NE	50	100	100	140	48	280	280	2100	2100	50000
CEF-076-110D	1/25/2005	1150	ND	ND	88.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	499 JB
	11/21/2005	597	ND	ND	38.2 J	ND	ND	ND	19.2 JB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2700 B
	2/14/2006	434	ND	ND	42.3 J	ND	ND	ND	ND	ND	28.6 JB	ND	ND	ND	ND	ND	ND	ND	ND	309 JB
	5/11/2006	559	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	370
	8/14/2006	497	ND	ND	17.1 J	ND	ND	ND	ND	ND	9.25 JB	ND	ND	ND	ND	ND	ND	ND	ND	430 JB
	5/30/2007	110	0.99 J	ND	21 JB	ND	ND	ND	0.51 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	350 J
	10/23/2007	120	0.55 J	ND	13 J	ND	ND	ND	0.35 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	190 J
	10/9/2008	185	1.9 I	<0.70	13.4 I	<0.40	<0.68	<0.64	1.0 I	NA	18.8 V	11.3	3.2 I	5.6	<0.48	<0.48	<0.48	<0.95	<0.48	347
	12/16/2008	175	<2.2	<1.8	10.4	<0.40	<0.68	<0.64	<1.0	NA	13.4 I,V	8.6 I	2.5 I	4.5	<0.50	<0.50	<0.50	<0.95	<0.48	287
	3/3/2009	165	2.0	<1.8	15.8	<0.40	<0.68	<0.64	0.72 I	NA	6.5 I,V	10.2	2.7 I	3.2	<0.50	<0.48	<0.48	<0.95	<0.48	257
	6/10/2009	130	1.4 I	<0.7	15.1	<0.40	<0.68	<0.64	0.76 I	<0.64	<2	10.6	3.4 I	4.0	<0.48	<0.48	<0.48	<0.96	<0.48	183
	9/15/2009	166	<0.86	<0.7	11 I	<0.40	<0.68	<0.64	<0.4	<0.64	<2	5	1.1 I	4.4	<0.48	<0.48	<0.48	<0.96	<0.48	268
	12/3/2009	175	1.0	<0.35	17.1	<0.20	<0.34	<0.22	0.53 I	<0.32	<1.0	8.8	2.3	5.7	<0.48	<0.48	<0.48	<0.96	<0.48	348
CEF-076-113S	1/25/2005	7730	1130	85.3 J	4740	ND	ND	ND	87.7 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12700 JB
	11/18/2005	7940	878 J	ND	4010	ND	ND	ND	400 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6090 JB
	2/13/2006	9680	953 J	ND	1790	ND	ND	ND	ND	ND	315 JB	ND	ND	ND	ND	38.6 J	26.2 J	ND	ND	3510 JB
	5/10/2006	13100	1060	ND	1880	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.1 J	ND	ND	ND	7290
	8/14/2006	10500	1300	ND	2500	ND	ND	ND	ND	ND	195 JB	ND	ND	ND	ND	27.1 J	ND	ND	ND	4060 JB
	5/24/2007	9900	1100	ND	1900	ND	ND	ND	91 J	ND	ND	ND	ND	ND	ND	4	5.8	ND	ND	5400
	10/25/2007	9000	800	ND	1600 J	ND	ND	ND	72	ND	37 J	ND	ND	ND	ND	2.7	3.6	ND	0.029 J	5600
	10/10/2008	11600	374	<70	1643	<40	<68	<64	49.9 I	<64	<200	206 I	77.7	53.8	<0.48	1.6 I	4.3	0.96U	<0.48	2120
	12/16/2008	10800	155 I	<70	1163	<40	<68	<64	<40	<64	509 I,V	138 I	47.2 I	37.1	<0.48	1.2 I	1.8 I	<0.96	<0.48	1970
	3/3/2009	12500	345	<70	1432	<40	<68	<64	59	<64	393 I,V	238 I	71.6 I	54.9	<0.48	2.0	3.9	<0.96	<0.48	2560
	6/10/2009	9120	459	<70	1135	<40	<68	<64	54	<64	<200	230	83.3	39.2	<0.48	2.0	9.5	<0.96	<0.48	1650
	9/15/2009	9460	319	<35	814	<20	<34	<32	28.6	<32	190 I	112 I	42.5 I	37.7	<0.48	1.5 I	<1.9	<0.96	<0.48	1550
	12/3/2009	8620	389	<35	920	<20	<34	<32	42.2 I	<32	113 I JB	181 I	56.4 I	38.4	<0.50	1.6 I	4.4	<1.0	<0.50	1520

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		Benzene	Ethylbenzene	Toluene	Xylenes, total	cis-1,2-Dichloroethene	1,2-Dichloroethane	Trichloroethene (TCE)	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene chloride	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene by Method 8310	Chrysene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	
GCTL (µg/L)		1	30	40	20	70	3	3	0.8	NE	5	10	10	14	4.8	28	28	210	210	5000
NADSC (µg/L)		100	300	400	200	700	30	30	8	NE	50	100	100	140	48	280	280	2100	2100	50000
CEF-076-116D	11/17/2005	**176**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/15/2006	**324**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/15/2006	**517**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/17/2006	**256**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/29/2007	**45**	**0.17 J**	ND	**1.8**	ND	ND	ND	**0.15 J**	ND	ND	ND	ND	ND	**0.045JB**	**0.029 JB**	**0.049JB**	**0.054JB**	**0.077JB**	**170 J**
	10/25/2007	**57 J**	ND	ND	**2.8 J**	ND	ND	ND	**0.3 J**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/10/2008	**80.1**	**1.2 I**	<0.70	**1.0 I**	<0.40	<0.68	<0.64	<0.40	<0.64	<2.0	**2.6 I**	<0.40	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	**185 I**
	12/16/2008	**68.9**	**0.49 I**	<0.35	**3.2 I**	<0.40	<0.68	<0.64	**0.36 I**	<0.32	<1.0	**3.7**	**0.39 I**	<0.95	<0.48	<0.48	<0.48	<0.96	<0.48	**231 I**
	3/3/2009	**45**	<0.43	<0.35	**1.3**	<0.40	<0.68	<0.64	**0.31 I**	<0.32	<1.0	**2.7**	**0.31 I**	<0.95	<0.48	<0.48	<0.48	<0.95	<0.48	**191 I**
	6/10/2009	**21.3**	<0.43	<0.35	<0.78	<0.40	<0.68	<0.64	**0.22 I**	<0.32	<1.0	**2.2**	**0.31 I**	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	9/15/2009	**22.7**	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**0.6 I**	<0.20	<0.95	<0.48	<0.48	<0.48	<0.95	<0.48	**162 I**
	12/3/2009	**19.1**	<0.43	<0.35	**0.59 I**	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	**1.2 I**	<0.20	<0.98	<0.49	<0.49	<0.49	<0.98	<0.49	**357**
CEF-076-117D	6/10/2009	<0.40	**0.80 I**	<0.35	<0.78	<0.40	<0.68	<0.64	**2.6**	<0.32	<1.0	**24.6**	**9.1**	**1.0 I**	<0.48	<0.48	<1.9	<0.95	<0.48	**316**
	9/15/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	<0.20	<0.32	<1.0	<0.22	<0.20	<0.96	<0.48	<0.48	<0.48	<0.96	<0.48	<160
	12/3/2009	<0.40	<0.43	<0.35	<0.78	<0.20	<0.34	<0.32	**1.1**	<0.32	<1.0	**13.7**	**4.5**	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50	**254**

NOTES:
µg/L - Micrograms per liter
GCTL - Groundwater Cleanup Target Level
NADSC - Natural Attenuation Default Source Concentrations
Bold indicates value exceeds the method detection limit.
Shading indicates: Exceeds the GCTL
Exceeds both the GCTL and NADSC
NE - Not Established
ND - No Data Available
J and I - Estimated Concentration
JB - Analyte was detected in the associated method and/or calibration blank
V - Analyte detected in associated method blank, suspected lab contaminant

APPENDIX A

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORMS

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

12/21/09

Technical Report for

Solutions-IES, Inc

Cecil Field North Fuel Farm; Jacksonville, FL

8030.08A2.NAVF

Accutest Job Number: F69924

Sampling Date: 12/03/09

Report to:

Solutions-IES, Inc

keenerj@solutions-ies.com

ATTN: Jessica Keener

Total number of pages in report: **124**

ACCREDITED IN ACCORDANCE WITH nelac

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

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

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

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

Solutions-IES, Inc

Job No: F69924

Cecil Field North Fuel Farm; Jacksonville, FL
Project No: 8030.08A2.NAVF

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F69924-1	12/03/09	09:37	KD	12/04/09	AQ	Ground Water	CEF-076-117D
F69924-2	12/03/09	09:55	KD	12/04/09	AQ	Ground Water	CEF-076-98D
F69924-3	12/03/09	11:25	KD	12/04/09	AQ	Ground Water	CEF-076-99D
F69924-4	12/03/09	09:26	KD	12/04/09	AQ	Ground Water	CEF-076-110D
F69924-5	12/03/09	15:03	KD	12/04/09	AQ	Ground Water	CEF-076-94S
F69924-6	12/03/09	11:27	KD	12/04/09	AQ	Ground Water	CEF-076-100D
F69924-7	12/03/09	13:57	KD	12/04/09	AQ	Ground Water	CEF-076-116D
F69924-8	12/03/09	13:33	KD	12/04/09	AQ	Ground Water	CEF-076-93S
F69924-9	12/03/09	11:51	KD	12/04/09	AQ	Ground Water	CEF-076-49S
F69924-10	12/03/09	12:56	KD	12/04/09	AQ	Ground Water	CEF-076-50I
F69924-11	12/03/09	14:40	KD	12/04/09	AQ	Ground Water	CEF-076-61I
F69924-12	12/03/09	15:28	KD	12/04/09	AQ	Ground Water	CEF-372-13R
F69924-13	12/03/09	00:00	KD	12/04/09	AQ	Trip Blank Water	CEF-076-TB1

Accutest Laboratories

Sample Summary
(continued)

Solutions-IES, Inc

Job No: F69924

Cecil Field North Fuel Farm; Jacksonville, FL
Project No: 8030.08A2.NAVF

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F69924-14	12/03/09	16:30	KD	12/04/09	AQ	Ground Water	CEF-076-57S
F69924-15	12/03/09	16:45	KD	12/04/09	AQ	Ground Water	CEF-076-70I
F69924-16	12/03/09	15:42	KD	12/04/09	AQ	Ground Water	CEF-076-95S
F69924-17	12/03/09	17:07	KD	12/04/09	AQ	Ground Water	CEF-076-113S

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Solutions-IES, Inc **Job No:** F69924

Site: Cecil Field North Fuel Farm; Jacksonville, FL **Report Date** 12/16/2009 9:59:10

16 Samples and 1 Trip Blank were collected on 12/03/2009 and received at Accutest on 12/04/2009 properly preserved, at 5 Deg. C and intact. These Samples received an Accutest job number of F69924. 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:** VC2708

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F69924-6MS, F69924-6MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 1,2,3-Trichloropropane, Acrolein are outside control limits. 1,2,3-Trichloropropane is in sporadic marginal exceedance. There is indication of decomposition of Acrolein in the spike mix. CCV is in control; therefore system remains in check.

MS/MSD Recoveries for 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Probable cause due to matrix interference. For method performance, refer to SB.

RPD(s) for MSD for 1,1,1-Trichloroethane, 1,1-Dichloroethylene, 1,1-Dichloropropene, Trichloroethylene, Trichlorofluoromethane are outside control limits for sample F69924-6MSD. Probable cause due to matrix interference.

F69924-17 for Methylene chloride: Suspected laboratory contaminant.

Extractables by GC By Method FLORIDA-PRO

Matrix: AQ **Batch ID:** OP31146

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F69924-4MS, F69924-4MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8310

Matrix: AQ **Batch ID:** OP31142

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F69924-1MS, F69924-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F69924-2, F69924-4, F69924-5, F69924-8, F69924-11, F69924-17: All hits confirmed by spectral match using a diode array detector.

Wet Chemistry By Method EPA 300/SW846 9056

Matrix: AQ **Batch ID:** GP14080

All samples were prepared within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F69924-16DUP, F69924-16MS were used as the QC samples for Sulfate.

Matrix Spike Recovery(s) for Sulfate are outside control limits. Spike recovery indicates possible matrix interference. For method performance in a clean matrix, refer to SB.

Wet Chemistry By Method SM19 5310B/SW 9060A

Matrix: AQ **Batch ID:** GP14044

All samples were prepared within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F69812-1DUP, F69812-1MS were used as the QC samples for Total Organic Carbon.

Matrix: AQ **Batch ID:** GP14045

All samples were prepared within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F69924-7DUP, F69924-7MS were used as the QC samples for Total Organic Carbon.

Matrix Spike Recovery(s) for Total Organic Carbon are outside control limits. Spike recovery indicates possible matrix interference. For method performance in a clean matrix, refer to SB.

F69924-11 for Total Organic Carbon: Estimated value, above calibration range.

Matrix: AQ **Batch ID:** GP14057

All samples were prepared within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F69924-1DUP, F69924-1MS were used as the QC samples for Total Carbon.

Matrix Spike Recovery(s) for Total Carbon are outside control limits. Spike recovery indicates possible matrix interference. For method performance in a clean matrix, refer to SB.

Wet Chemistry By Method SM20 4500S F

Matrix: AQ **Batch ID:** GN37738

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F69924-1DUP, F69924-1MS were used as the QC samples for Sulfide.

Wet Chemistry By Method SM20 5310B, 9060M

Matrix: AQ **Batch ID:** R22308

F69924-1, F69924-3, F69924-6, F69924-7, F69924-9, F69924-11, F69924-14, F69924-16 for Inorganic Carbon: Calculated as: Total Carbon - Total Organic Carbon

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: December 16, 2009

_____

Lovelie Metzgar, QA Assistant (signature on file)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	CEF-076-117D		
Lab Sample ID:	F69924-1	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067421.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-117D		
Lab Sample ID:	F69924-1	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	1.1	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.1	5.0	1.0	ug/l	I
103-65-1	n-Propylbenzene	0.61	1.0	0.25	ug/l	I
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	13.7	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	4.5	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	0.78 U	2.0	0.78	ug/l	
95-47-6	o-Xylene	0.37 U	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-117D		
Lab Sample ID:	F69924-1	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	95%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-117D		
Lab Sample ID:	F69924-1	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052591.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
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	2.0	1.0	ug/l	
208-96-8	Acenaphthylene	1.0 U	2.0	1.0	ug/l	
120-12-7	Anthracene	1.0 U	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	0.050 U	0.20	0.050	ug/l	
50-32-8	Benzo(a)pyrene	0.050 U	0.20	0.050	ug/l	
205-99-2	Benzo(b)fluoranthene	0.050 U	0.20	0.050	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	0.050 U	0.20	0.050	ug/l	
218-01-9	Chrysene	0.50 U	2.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.050 U	0.20	0.050	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	0.050 U	0.20	0.050	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	79%		43-121%
92-94-4	p-Terphenyl	54%		30-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-117D		
Lab Sample ID:	F69924-1	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61675.D	1	12/09/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.254	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-117D		
Lab Sample ID:	F69924-1	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
		Percent Solids:	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Inorganic Carbon [a]	10.5	2.0	1.0	mg/l	1	12/09/09 19:37	SD	SM20 5310B, 9060M
Sulfate	1.7 I	2.0	1.0	mg/l	1	12/12/09 13:43	CC	EPA 300/SW846 9056
Sulfide	2.0	1.0	0.60	mg/l	1	12/09/09	SD	SM20 4500S F
Total Carbon	16.0	1.0	0.50	mg/l	1	12/09/09 19:37	SD	SM19 5310B/SW 9060A
Total Organic Carbon	5.5	1.0	0.50	mg/l	1	12/08/09 14:45	SD	SM19 5310B/SW 9060A

(a) Calculated as: Total Carbon - Total Organic Carbon

RL = Reporting Limit = PQL
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	CEF-076-98D		
Lab Sample ID:	F69924-2	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067422.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	26.8	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-98D		
Lab Sample ID:	F69924-2	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.44	1.0	0.43	ug/l	I
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.4	5.0	1.0	ug/l	I
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1.4	2.0	0.22	ug/l	I
108-67-8	1,3,5-Trimethylbenzene	0.37	2.0	0.20	ug/l	I
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	1.2	2.0	0.78	ug/l	I
95-47-6	o-Xylene	3.3	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-98D		
Lab Sample ID:	F69924-2	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-98D		
Lab Sample ID:	F69924-2	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA052596.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	1.0	1.9	0.96	ug/l	I
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		43-121%
92-94-4	p-Terphenyl	72%		30-122%

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-98D		
Lab Sample ID:	F69924-2	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61676.D	1	12/09/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.333	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-99D		
Lab Sample ID:	F69924-3	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067423.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-99D		
Lab Sample ID:	F69924-3	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.22 U	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.20 U	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	0.78 U	2.0	0.78	ug/l	
95-47-6	o-Xylene	0.37 U	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-99D		
Lab Sample ID:	F69924-3	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		87-116%
17060-07-0	1,2-Dichloroethane-D4	93%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-99D		
Lab Sample ID:	F69924-3	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052597.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	0.96 U	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		43-121%
92-94-4	p-Terphenyl	64%		30-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-99D		
Lab Sample ID:	F69924-3	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61677.D	1	12/09/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.255	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-99D		
Lab Sample ID:	F69924-3	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
		Percent Solids:	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Inorganic Carbon [a]	111	2.0	1.0	mg/l	1	12/09/09 19:46	SD	SM20 5310B, 9060M
Sulfate	1570	50	25	mg/l	25	12/14/09 23:17	CC	EPA 300/SW846 9056
Sulfide	2.8	1.0	0.60	mg/l	1	12/09/09	SD	SM20 4500S F
Total Carbon	136	1.0	0.50	mg/l	1	12/09/09 19:46	SD	SM19 5310B/SW 9060A
Total Organic Carbon	25.2	1.0	0.50	mg/l	1	12/08/09 15:00	SD	SM19 5310B/SW 9060A

(a) Calculated as: Total Carbon - Total Organic Carbon

RL = Reporting Limit = PQL
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	CEF-076-110D		
Lab Sample ID:	F69924-4	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067441.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2	C067424.D	2	12/09/09	AJ	n/a	n/a	VC2708

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	175 [a]	2.0	0.80	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-110D		
Lab Sample ID:	F69924-4	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	1.0	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.53	1.0	0.20	ug/l	I
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	6.8	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.28	1.0	0.25	ug/l	I
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	8.8	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	2.3	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	2.9	2.0	0.78	ug/l	
95-47-6	o-Xylene	14.2	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-110D		
Lab Sample ID:	F69924-4	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	97%	87-116%
17060-07-0	1,2-Dichloroethane-D4	94%	94%	76-127%
2037-26-5	Toluene-D8	96%	97%	86-112%
460-00-4	4-Bromofluorobenzene	96%	99%	84-120%

(a) Result is from Run# 2

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

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

Report of Analysis

Client Sample ID:	CEF-076-110D		
Lab Sample ID:	F69924-4	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA052598.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	5.7	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		43-121%
92-94-4	p-Terphenyl	81%		30-122%

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-110D		
Lab Sample ID:	F69924-4	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61711.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2109
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.348	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-94S		
Lab Sample ID:	F69924-5	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067425.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-94S		
Lab Sample ID:	F69924-5	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.22 U	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.20 U	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	0.78 U	2.0	0.78	ug/l	
95-47-6	o-Xylene	0.37 U	1.0	0.37	ug/l	

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

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V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-94S		
Lab Sample ID:	F69924-5	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-94S		
Lab Sample ID:	F69924-5	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052599.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	0.96 U	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		43-121%
92-94-4	p-Terphenyl	74%		30-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-94S		
Lab Sample ID:	F69924-5	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61678.D	1	12/09/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.294	0.24	0.16	mg/l	

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

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
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I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-100D		
Lab Sample ID:	F69924-6	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067426.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-100D		
Lab Sample ID:	F69924-6	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.22 U	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.20 U	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	0.78 U	2.0	0.78	ug/l	
95-47-6	o-Xylene	0.37 U	1.0	0.37	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-100D		
Lab Sample ID:	F69924-6	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-100D		
Lab Sample ID:	F69924-6	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052600.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
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	2.0	1.0	ug/l	
208-96-8	Acenaphthylene	1.0 U	2.0	1.0	ug/l	
120-12-7	Anthracene	1.0 U	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	0.050 U	0.20	0.050	ug/l	
50-32-8	Benzo(a)pyrene	0.050 U	0.20	0.050	ug/l	
205-99-2	Benzo(b)fluoranthene	0.050 U	0.20	0.050	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	0.050 U	0.20	0.050	ug/l	
218-01-9	Chrysene	0.50 U	2.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.050 U	0.20	0.050	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	0.050 U	0.20	0.050	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	86%		43-121%
92-94-4	p-Terphenyl	89%		30-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-100D		
Lab Sample ID:	F69924-6	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61679.D	1	12/09/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.17 U	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-100D		
Lab Sample ID:	F69924-6	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
		Percent Solids:	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Inorganic Carbon [a]	46.0	2.0	1.0	mg/l	1	12/09/09 20:01	SD	SM20 5310B, 9060M
Sulfate	2100	100	50	mg/l	50	12/14/09 23:35	CC	EPA 300/SW846 9056
Sulfide	3.9	1.0	0.60	mg/l	1	12/09/09	SD	SM20 4500S F
Total Carbon	67.4	1.0	0.50	mg/l	1	12/09/09 20:01	SD	SM19 5310B/SW 9060A
Total Organic Carbon	21.4	1.0	0.50	mg/l	1	12/08/09 15:35	SD	SM19 5310B/SW 9060A

(a) Calculated as: Total Carbon - Total Organic Carbon

RL = Reporting Limit = PQL
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	CEF-076-116D		
Lab Sample ID:	F69924-7	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067427.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	19.1	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	15.0	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-116D		
Lab Sample ID:	F69924-7	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1.2	2.0	0.22	ug/l	I
108-67-8	1,3,5-Trimethylbenzene	0.20 U	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	0.78 U	2.0	0.78	ug/l	
95-47-6	o-Xylene	0.59	1.0	0.37	ug/l	I

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

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

Report of Analysis

Client Sample ID:	CEF-076-116D		
Lab Sample ID:	F69924-7	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	93%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	98%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-116D		
Lab Sample ID:	F69924-7	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052601.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.98 U	2.0	0.98	ug/l	
208-96-8	Acenaphthylene	0.98 U	2.0	0.98	ug/l	
120-12-7	Anthracene	0.98 U	2.0	0.98	ug/l	
56-55-3	Benzo(a)anthracene	0.049 U	0.20	0.049	ug/l	
50-32-8	Benzo(a)pyrene	0.049 U	0.20	0.049	ug/l	
205-99-2	Benzo(b)fluoranthene	0.049 U	0.20	0.049	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.098 U	0.20	0.098	ug/l	
207-08-9	Benzo(k)fluoranthene	0.049 U	0.20	0.049	ug/l	
218-01-9	Chrysene	0.49 U	2.0	0.49	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.049 U	0.20	0.049	ug/l	
206-44-0	Fluoranthene	0.49 U	2.0	0.49	ug/l	
86-73-7	Fluorene	0.98 U	2.0	0.98	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.049 U	0.20	0.049	ug/l	
91-20-3	Naphthalene	0.98 U	2.0	0.98	ug/l	
90-12-0	1-Methylnaphthalene	0.49 U	2.0	0.49	ug/l	
91-57-6	2-Methylnaphthalene	0.49 U	2.0	0.49	ug/l	
85-01-8	Phenanthrene	0.98 U	2.0	0.98	ug/l	
129-00-0	Pyrene	0.49 U	2.0	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		43-121%
92-94-4	p-Terphenyl	89%		30-122%

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

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V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-116D		
Lab Sample ID:	F69924-7	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61685.D	1	12/09/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.357	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		38-122%

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V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-116D		
Lab Sample ID:	F69924-7	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
		Percent Solids:	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Inorganic Carbon [a]	6.1	2.0	1.0	mg/l	1	12/09/09 20:12	SD	SM20 5310B, 9060M
Sulfate	14900	400	200	mg/l	200	12/14/09 23:53	CC	EPA 300/SW846 9056
Sulfide	1.4	1.0	0.60	mg/l	1	12/09/09	SD	SM20 4500S F
Total Carbon	55.8	1.0	0.50	mg/l	1	12/09/09 20:12	SD	SM19 5310B/SW 9060A
Total Organic Carbon	49.7	1.0	0.50	mg/l	1	12/08/09 18:00	SD	SM19 5310B/SW 9060A

(a) Calculated as: Total Carbon - Total Organic Carbon

RL = Reporting Limit = PQL
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	CEF-076-93S		
Lab Sample ID:	F69924-8	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067428.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.50	1.0	0.40	ug/l	I
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.51	1.0	0.25	ug/l	I
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-93S		
Lab Sample ID:	F69924-8	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	9.5	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	2.6	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.49	1.0	0.32	ug/l	I
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	3.0	5.0	1.0	ug/l	I
103-65-1	n-Propylbenzene	1.9	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	8.9	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	4.2	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	4.9	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	44.3	2.0	0.78	ug/l	
95-47-6	o-Xylene	14.4	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-93S		
Lab Sample ID:	F69924-8	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	95%		76-127%
2037-26-5	Toluene-D8	94%		86-112%
460-00-4	4-Bromofluorobenzene	100%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-93S		
Lab Sample ID:	F69924-8	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA052602.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	2.0	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	1.1	1.9	0.48	ug/l	I
91-57-6	2-Methylnaphthalene	2.1	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		43-121%
92-94-4	p-Terphenyl	66%		30-122%

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-93S		
Lab Sample ID:	F69924-8	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61714.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2109
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.356	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	65%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-49S		
Lab Sample ID:	F69924-9	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067429.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	1.3	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

U = Not detected MDL - Method Detection Limit
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V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-49S		
Lab Sample ID:	F69924-9	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.22 U	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.20 U	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	1.3	2.0	0.78	ug/l	I
95-47-6	o-Xylene	0.81	1.0	0.37	ug/l	I

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-49S		
Lab Sample ID:	F69924-9	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

U = Not detected MDL - Method Detection Limit
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I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-49S		
Lab Sample ID:	F69924-9	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052603.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	0.96 U	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		43-121%
92-94-4	p-Terphenyl	88%		30-122%

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

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V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-49S		
Lab Sample ID:	F69924-9	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61687.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.220	0.24	0.16	mg/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-49S		
Lab Sample ID:	F69924-9	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
		Percent Solids:	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Inorganic Carbon [a]	9.2	2.0	1.0	mg/l	1	12/09/09 20:53	SD	SM20 5310B, 9060M
Sulfate	3380	200	100	mg/l	100	12/15/09 00:11	CC	EPA 300/SW846 9056
Sulfide	3.9	1.0	0.60	mg/l	1	12/09/09	SD	SM20 4500S F
Total Carbon	28.7	1.0	0.50	mg/l	1	12/09/09 20:53	SD	SM19 5310B/SW 9060A
Total Organic Carbon	19.5	1.0	0.50	mg/l	1	12/08/09 18:17	SD	SM19 5310B/SW 9060A

(a) Calculated as: Total Carbon - Total Organic Carbon

RL = Reporting Limit = PQL
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	CEF-076-50I		
Lab Sample ID:	F69924-10	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067430.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	54.3	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-50I		
Lab Sample ID:	F69924-10	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.47	1.0	0.43	ug/l	I
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20	1.0	0.20	ug/l	I
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1.2	2.0	0.22	ug/l	I
108-67-8	1,3,5-Trimethylbenzene	0.39	2.0	0.20	ug/l	I
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	2.6	2.0	0.78	ug/l	
95-47-6	o-Xylene	6.3	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-50I		
Lab Sample ID:	F69924-10	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		87-116%
17060-07-0	1,2-Dichloroethane-D4	92%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-50I		
Lab Sample ID:	F69924-10	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052604.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	0.96 U	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		43-121%
92-94-4	p-Terphenyl	89%		30-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-50I		
Lab Sample ID:	F69924-10	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61688.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.365	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-61I		
Lab Sample ID:	F69924-11	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067434.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	15.9	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.47	1.0	0.25	ug/l	I
98-06-6	tert-Butylbenzene	0.40	1.0	0.32	ug/l	I
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-61I		
Lab Sample ID:	F69924-11	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	3.6	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	2.9	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	16.3	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	2.3	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	25.3	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	8.6	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	4.4	2.0	0.78	ug/l	
95-47-6	o-Xylene	7.4	1.0	0.37	ug/l	

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I = Result > = MDL but < RL J = Estimated value
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-61I		
Lab Sample ID:	F69924-11	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	93%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

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

I = Result > = MDL but < RL J = Estimated value
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-61I		
Lab Sample ID:	F69924-11	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA052605.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	8.2	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	1.0	1.9	0.48	ug/l	I
91-57-6	2-Methylnaphthalene	1.7	1.9	0.48	ug/l	I
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		43-121%
92-94-4	p-Terphenyl	78%		30-122%

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-61I		
Lab Sample ID:	F69924-11	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61689.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.621	0.24	0.16	mg/l	

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-61I		
Lab Sample ID:	F69924-11	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
		Percent Solids:	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Inorganic Carbon [a]	14.0	2.0	1.0	mg/l	1	12/09/09 21:01	SD	SM20 5310B, 9060M
Sulfate	6130	200	100	mg/l	100	12/15/09 00:29	CC	EPA 300/SW846 9056
Sulfide	1.5	1.0	0.60	mg/l	1	12/09/09	SD	SM20 4500S F
Total Carbon	49.9	1.0	0.50	mg/l	1	12/09/09 21:01	SD	SM19 5310B/SW 9060A
Total Organic Carbon [b]	35.9	1.0	0.50	mg/l	1	12/08/09 18:33	SD	SM19 5310B/SW 9060A

(a) Calculated as: Total Carbon - Total Organic Carbon
(b) Estimated value, above calibration range.

RL = Reporting Limit = PQL
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	CEF-372-13R		
Lab Sample ID:	F69924-12	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067435.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-372-13R		
Lab Sample ID:	F69924-12	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.22 U	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.20 U	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	0.78 U	2.0	0.78	ug/l	
95-47-6	o-Xylene	0.37 U	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-372-13R		
Lab Sample ID:	F69924-12	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	95%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-372-13R		
Lab Sample ID:	F69924-12	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052608.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	0.96 U	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		43-121%
92-94-4	p-Terphenyl	80%		30-122%

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

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

Report of Analysis

Client Sample ID:	CEF-372-13R		
Lab Sample ID:	F69924-12	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61690.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.195	0.24	0.16	mg/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		38-122%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-TB1		
Lab Sample ID:	F69924-13	**Date Sampled:**	12/03/09
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067436.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-TB1		
Lab Sample ID:	F69924-13	**Date Sampled:**	12/03/09
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.22 U	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.20 U	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	0.78 U	2.0	0.78	ug/l	
95-47-6	o-Xylene	0.37 U	1.0	0.37	ug/l	

U = Not detected MDL - Method Detection Limit
RL = Reporting Limit = PQL
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I = Result > = MDL but < RL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-TB1		
Lab Sample ID:	F69924-13	**Date Sampled:**	12/03/09
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

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

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V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	CEF-076-57S		
Lab Sample ID:	F69924-14	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067437.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.61	1.0	0.40	ug/l	I
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-57S		
Lab Sample ID:	F69924-14	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.49	1.0	0.43	ug/l	I
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.55	2.0	0.22	ug/l	I
108-67-8	1,3,5-Trimethylbenzene	0.27	2.0	0.20	ug/l	I
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	1.8	2.0	0.78	ug/l	I
95-47-6	o-Xylene	0.88	1.0	0.37	ug/l	I

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

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

Report of Analysis

Client Sample ID:	CEF-076-57S		
Lab Sample ID:	F69924-14	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	95%		86-112%
460-00-4	4-Bromofluorobenzene	96%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-57S		
Lab Sample ID:	F69924-14	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052609.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	0.96 U	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		43-121%
92-94-4	p-Terphenyl	91%		30-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-57S		
Lab Sample ID:	F69924-14	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61691.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.177	0.24	0.16	mg/l	I

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-57S		
Lab Sample ID:	F69924-14	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
		Percent Solids:	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Inorganic Carbon [a]	2.7	2.0	1.0	mg/l	1	12/09/09 21:10	SD	SM20 5310B, 9060M
Sulfate	1990	100	50	mg/l	50	12/15/09 00:47	CC	EPA 300/SW846 9056
Sulfide	3.3	1.0	0.60	mg/l	1	12/09/09	SD	SM20 4500S F
Total Carbon	15.2	1.0	0.50	mg/l	1	12/09/09 21:10	SD	SM19 5310B/SW 9060A
Total Organic Carbon	12.5	1.0	0.50	mg/l	1	12/08/09 18:49	SD	SM19 5310B/SW 9060A

(a) Calculated as: Total Carbon - Total Organic Carbon

RL = Reporting Limit = PQL
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	CEF-076-70I		
Lab Sample ID:	F69924-15	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067442.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	83.3	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.39	1.0	0.25	ug/l	I
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-70I		
Lab Sample ID:	F69924-15	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	6.3	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	9.2	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.41	1.0	0.32	ug/l	I
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	15.4	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	7.8	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	49.1	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	16.9	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	43.0	2.0	0.78	ug/l	
95-47-6	o-Xylene	37.9	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-70I		
Lab Sample ID:	F69924-15	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	95%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-70I		
Lab Sample ID:	F69924-15	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA052610.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.96 U	1.9	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	1.9	0.96	ug/l	
120-12-7	Anthracene	0.96 U	1.9	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.048 U	0.19	0.048	ug/l	
50-32-8	Benzo(a)pyrene	0.048 U	0.19	0.048	ug/l	
205-99-2	Benzo(b)fluoranthene	0.048 U	0.19	0.048	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.096 U	0.19	0.096	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.48 U	1.9	0.48	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.48 U	1.9	0.48	ug/l	
86-73-7	Fluorene	0.96 U	1.9	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
91-20-3	Naphthalene	9.8	1.9	0.96	ug/l	
90-12-0	1-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
91-57-6	2-Methylnaphthalene	0.48 U	1.9	0.48	ug/l	
85-01-8	Phenanthrene	0.96 U	1.9	0.96	ug/l	
129-00-0	Pyrene	0.48 U	1.9	0.48	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		43-121%
92-94-4	p-Terphenyl	77%		30-122%

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-70I		
Lab Sample ID:	F69924-15	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61694.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.335	0.24	0.16	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	52%		38-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-95S		
Lab Sample ID:	F69924-16	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067439.D	1	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10 U	25	10	ug/l	
107-02-8	Acrolein	5.0 U	20	5.0	ug/l	
107-13-1	Acrylonitrile	2.0 U	10	2.0	ug/l	
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-86-1	Bromobenzene	0.26 U	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	0.23 U	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	0.20 U	1.0	0.20	ug/l	
75-25-2	Bromoform	0.33 U	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	0.28 U	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	0.25 U	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	0.32 U	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	0.22 U	1.0	0.22	ug/l	
75-00-3	Chloroethane	0.48 U	2.0	0.48	ug/l	
67-66-3	Chloroform	0.28 U	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	0.25 U	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	0.21 U	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	1.0 U	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	0.40 U	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	0.22 U	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	0.24 U	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	0.54 U	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	0.23 U	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	0.32 U	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	0.28 U	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	0.34 U	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	0.21 U	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	0.26 U	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	0.28 U	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	0.20 U	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-95S		
Lab Sample ID:	F69924-16	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	0.23 U	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.22 U	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.45 U	1.0	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.21 U	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	0.69 U	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.32 U	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	2.0 U	5.0	2.0	ug/l	
74-83-9	Methyl bromide	0.78 U	2.0	0.78	ug/l	
74-87-3	Methyl chloride	0.61 U	2.0	0.61	ug/l	
74-95-3	Methylene bromide	0.30 U	2.0	0.30	ug/l	
75-09-2	Methylene chloride	1.0 U	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	2.0 U	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	
91-20-3	Naphthalene	1.0 U	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	0.25 U	1.0	0.25	ug/l	
100-42-5	Styrene	0.36 U	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.33 U	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.21 U	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	0.26 U	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	0.34 U	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.50 U	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.22 U	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.20 U	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.22 U	1.0	0.22	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	0.32 U	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	0.50 U	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	0.30 U	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	3.6 U	10	3.6	ug/l	
	m,p-Xylene	0.78 U	2.0	0.78	ug/l	
95-47-6	o-Xylene	0.37 U	1.0	0.37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-95S		
Lab Sample ID:	F69924-16	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		87-116%
17060-07-0	1,2-Dichloroethane-D4	94%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

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

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

Report of Analysis

Client Sample ID:	CEF-076-95S		
Lab Sample ID:	F69924-16	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA052611.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
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	2.0	1.0	ug/l	
208-96-8	Acenaphthylene	1.0 U	2.0	1.0	ug/l	
120-12-7	Anthracene	1.0 U	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	0.050 U	0.20	0.050	ug/l	
50-32-8	Benzo(a)pyrene	0.050 U	0.20	0.050	ug/l	
205-99-2	Benzo(b)fluoranthene	0.050 U	0.20	0.050	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	0.050 U	0.20	0.050	ug/l	
218-01-9	Chrysene	0.50 U	2.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.050 U	0.20	0.050	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	0.050 U	0.20	0.050	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	80%		43-121%
92-94-4	p-Terphenyl	79%		30-122%

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

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

Report of Analysis

Client Sample ID:	CEF-076-95S		
Lab Sample ID:	F69924-16	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61695.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2108
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.445	0.24	0.16	mg/l	

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-95S		
Lab Sample ID:	F69924-16	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
		Percent Solids:	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Inorganic Carbon [a]	12.1	2.0	1.0	mg/l	1	12/09/09 21:18	SD	SM20 5310B, 9060M
Sulfate	10.7	2.0	1.0	mg/l	1	12/12/09 16:26	CC	EPA 300/SW846 9056
Sulfide	1.4	1.0	0.60	mg/l	1	12/09/09	SD	SM20 4500S F
Total Carbon	22.1	1.0	0.50	mg/l	1	12/09/09 21:18	SD	SM19 5310B/SW 9060A
Total Organic Carbon	10.0	1.0	0.50	mg/l	1	12/08/09 19:04	SD	SM19 5310B/SW 9060A

(a) Calculated as: Total Carbon - Total Organic Carbon

RL = Reporting Limit = PQL
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	CEF-076-113S		
Lab Sample ID:	F69924-17	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C067440.D	100	12/09/09	AJ	n/a	n/a	VC2708
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	1000 U	2500	1000	ug/l	
107-02-8	Acrolein	500 U	2000	500	ug/l	
107-13-1	Acrylonitrile	200 U	1000	200	ug/l	
71-43-2	Benzene	8620	100	40	ug/l	
108-86-1	Bromobenzene	26 U	100	26	ug/l	
74-97-5	Bromochloromethane	23 U	100	23	ug/l	
75-27-4	Bromodichloromethane	20 U	100	20	ug/l	
75-25-2	Bromoform	33 U	100	33	ug/l	
104-51-8	n-Butylbenzene	28 U	100	28	ug/l	
135-98-8	sec-Butylbenzene	25 U	100	25	ug/l	
98-06-6	tert-Butylbenzene	32 U	100	32	ug/l	
108-90-7	Chlorobenzene	22 U	100	22	ug/l	
75-00-3	Chloroethane	48 U	200	48	ug/l	
67-66-3	Chloroform	28 U	100	28	ug/l	
95-49-8	o-Chlorotoluene	25 U	100	25	ug/l	
106-43-4	p-Chlorotoluene	21 U	100	21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	100 U	500	100	ug/l	
75-15-0	Carbon disulfide	40 U	200	40	ug/l	
56-23-5	Carbon tetrachloride	22 U	100	22	ug/l	
75-34-3	1,1-Dichloroethane	24 U	100	24	ug/l	
75-35-4	1,1-Dichloroethylene	54 U	100	54	ug/l	
563-58-6	1,1-Dichloropropene	23 U	100	23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	32 U	200	32	ug/l	
106-93-4	1,2-Dibromoethane	28 U	100	28	ug/l	
107-06-2	1,2-Dichloroethane	34 U	100	34	ug/l	
78-87-5	1,2-Dichloropropane	21 U	100	21	ug/l	
142-28-9	1,3-Dichloropropane	26 U	100	26	ug/l	
594-20-7	2,2-Dichloropropane	28 U	100	28	ug/l	
124-48-1	Dibromochloromethane	20 U	100	20	ug/l	
75-71-8	Dichlorodifluoromethane	100 U	200	100	ug/l	
156-59-2	cis-1,2-Dichloroethylene	20 U	100	20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	21 U	100	21	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-113S		
Lab Sample ID:	F69924-17	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
541-73-1	m-Dichlorobenzene	23 U	100	23	ug/l	
95-50-1	o-Dichlorobenzene	20 U	100	20	ug/l	
106-46-7	p-Dichlorobenzene	22 U	100	22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	45 U	100	45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	21 U	100	21	ug/l	
100-41-4	Ethylbenzene	389	100	43	ug/l	
591-78-6	2-Hexanone	500 U	1000	500	ug/l	
87-68-3	Hexachlorobutadiene	69 U	200	69	ug/l	
98-82-8	Isopropylbenzene	42.2	100	20	ug/l	I
99-87-6	p-Isopropyltoluene	32 U	100	32	ug/l	
108-10-1	4-Methyl-2-pentanone	200 U	500	200	ug/l	
74-83-9	Methyl bromide	78 U	200	78	ug/l	
74-87-3	Methyl chloride	61 U	200	61	ug/l	
74-95-3	Methylene bromide	30 U	200	30	ug/l	
75-09-2	Methylene chloride [a]	113	500	100	ug/l	I
78-93-3	Methyl ethyl ketone	200 U	500	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	26 U	100	26	ug/l	
91-20-3	Naphthalene	100 U	500	100	ug/l	
103-65-1	n-Propylbenzene	36.3	100	25	ug/l	I
100-42-5	Styrene	36 U	100	36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	20 U	100	20	ug/l	
71-55-6	1,1,1-Trichloroethane	33 U	100	33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	21 U	100	21	ug/l	
79-00-5	1,1,2-Trichloroethane	26 U	100	26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	50 U	100	50	ug/l	
96-18-4	1,2,3-Trichloropropane	34 U	200	34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	50 U	100	50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	181	200	22	ug/l	I
108-67-8	1,3,5-Trimethylbenzene	56.4	200	20	ug/l	I
127-18-4	Tetrachloroethylene	22 U	100	22	ug/l	
108-88-3	Toluene	35 U	100	35	ug/l	
79-01-6	Trichloroethylene	32 U	100	32	ug/l	
75-69-4	Trichlorofluoromethane	50 U	200	50	ug/l	
75-01-4	Vinyl chloride	30 U	100	30	ug/l	
108-05-4	Vinyl Acetate	360 U	1000	360	ug/l	
	m,p-Xylene	600	200	78	ug/l	
95-47-6	o-Xylene	320	100	37	ug/l	

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

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

Report of Analysis

Client Sample ID:	CEF-076-113S		
Lab Sample ID:	F69924-17	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		87-116%
17060-07-0	1,2-Dichloroethane-D4	95%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

(a) Suspected laboratory contaminant.

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

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

Report of Analysis

Client Sample ID:	CEF-076-113S		
Lab Sample ID:	F69924-17	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	SW846 8310 SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	AA052612.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
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	2.0	1.0	ug/l	
208-96-8	Acenaphthylene	1.0 U	2.0	1.0	ug/l	
120-12-7	Anthracene	1.0 U	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	0.050 U	0.20	0.050	ug/l	
50-32-8	Benzo(a)pyrene	0.050 U	0.20	0.050	ug/l	
205-99-2	Benzo(b)fluoranthene	0.050 U	0.20	0.050	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	0.050 U	0.20	0.050	ug/l	
218-01-9	Chrysene	0.50 U	2.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.050 U	0.20	0.050	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	0.050 U	0.20	0.050	ug/l	
91-20-3	Naphthalene	38.4	2.0	1.0	ug/l	
90-12-0	1-Methylnaphthalene	1.6	2.0	0.50	ug/l	I
91-57-6	2-Methylnaphthalene	4.4	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	83%		43-121%
92-94-4	p-Terphenyl	90%		30-122%

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

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

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

Report of Analysis

Client Sample ID:	CEF-076-113S		
Lab Sample ID:	F69924-17	**Date Sampled:**	12/03/09
Matrix:	AQ - Ground Water	**Date Received:**	12/04/09
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field North Fuel Farm; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ61715.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2109
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	1.52	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		38-122%

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

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # F69924 PAGE 1 OF 2

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: Solutions - IES
Address: 1101 Nowell Rd
City: Raleigh State: NC Zip: 27612
Project Contact: Jessica Keener E-mail: JKeener@solutions-ics.com
Phone#: (919) 873-1060
Sampler(s) Name(s) (Printed): JW KD/EG/TF/DM

Project Information

Project Name: Cecil Field - North Fuel Farm
Street:
City: Jacksonville State: FL
Project #: 8030-08AZ-NAVF
Fax #: (919) 873-1074
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	PAH 8310	TRPH FL PRO	VOCs 8260B	Sulfide 376.2	Sulfate 300.0	TOC 415.1	Inorganic Carbon 415.2
1	CEF-076-117D	12/3/09	0937	KD	GW	15		5	5			2	3			X	X	X	X	X	X	X
2	CEF-076-98D		0955	TF		7		2	3			2				X	X	X				
3	CEF-076-99D		1125	EG		15		5	5			2	3			X	X	X	X	X	X	X
4	CEF-076-110D		0926	EG		7		2	3			2				X	X	X				
5	CEF-076-94S		1503	EG		7		2	3			2				X	X	X				
6	CEF-076-100D		1127	KD		15		5	5			2	3			X	X	X	X	X	X	X
7	CEF-076-116D		1357	KD		15		5	5			2	3			X	X	X	X	X	X	X
8	CEF-076-93S		1333	EG		6		2	2			2				X	X	X				
9	CEF-076-49S		1151	TF		15		5	5			2	3			X	X	X	X	X	X	X
10	CEF-076-50I		1256	TF		7		2	3			2				X	X	X				
11	CEF-076-61I		1440	TF		15		5	5			2	3			X	X	X	X	X	X	X
12	CEF-372-13R		1528	DM		6		2	2			2				X	X	X				

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- ☐ 10 Days Standard
- ☐ 7 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Checked by KD 12-3-09 1755

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 Jan Marshall	12/3/09 1756	2 [illegible] 1756	3 [illegible]	12/3/09 2055	4 [illegible] Accutest 12/4/09 8:00
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 9 Cooler Temperature (s) Celsius: 3.0 4.6 4.8 5.0 3.7 6

F69924: Chain of Custody
Page 1 of 3

Accutest Laboratories Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # F69924 PAGE 2 OF 2

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: Solutions - IES
Address: 1101 Nowell Rd
City: Raleigh State: NC Zip: 27607
Project Contact: Jessica Kerner E-mail: jkerner@solutions-ies.com
Phone#: (919) 873-1000
Sampler(s) Name(s) (Printed): EG/TF/DM/KD

Project Information

Project Name: Cecil Field - North Fuel Farm
Street:
City: Jacksonville State: FL
Project #: 8030.08MZ. NAVF
Fax #: (919) 873-1074
Client Purchase Order #:

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Collection Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	PAH 8310	TRPH FL PRO	VOCs 8260B	Sulfide 376.2	Sulfate 300.0	TOC 415.1	Inorganic Carbon 415.2
13	CEF-076-TB1	–	–	–	–	2			2				2				X				
14	CEF-076-57S	12/3/09	1630	TF	GW	15		5	5		3	2	2		X	X	X	X	X	X	X
15	CEF-076-70I		1645	EG		7		2	3		2				X	X	X				
16	CEF-076-95S		1542	KD		15		5	5		3	2			X	X	X	X	X	X	X
17	CEF-076-113S		1707	KD		7		2	3		2				X	X	X				

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

LAB USE ONLY

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- ☐ 10 Days Standard
- ☐ 7 Day RUSH
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- ☐ COMMERCIAL "A" (RESULTS ONLY)
- ☐ COMMERCIAL "B" (RESULTS PLUS QC)
- ☐ REDT1 (EPA LEVEL 3)
- ☐ FULT1 (EPA LEVEL 4)
- ☐ EDD'S

Comments / Remarks

Checked by KD 12/3/09 1755

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
1 Dan Marshall	12/3/09 1754	2 [illegible] 1758	3 AISE	12/3/09 2038	4 [illegible] / Accutest 12/4/09 8:00
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: 5 Cooler Temperature (s) Celsius: 3.0 4.6 4.8 5.0 2.8 2.6 3.4

4.1 4

F69924: Chain of Custody
Page 2 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F69924 CLIENT: Solutions PROJECT: Cecil field

DATE/TIME RECEIVED: 12/4/09 9:00 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 9

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

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

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

NUMBER OR LAB FILTERED METALS ? Ø

TEMPERATURE INFORMATION

- [ ] IR THERM ID IR2 CORR. FACTOR +.4
- [ ] OBSERVED TEMPS: 2.6 4.2 4.4 4.6 2.4 2.2 3.0 2.8 1.6
- [ ] CORRECTED TEMPS: 3.0 4.6 4.8 5.0 2.8 2.6 3.4 3.2 2.0

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [x] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: Samples 8 & 12 only recieved 2 vials HCL per sample.

TECHNICIAN SIGNATURE/DATE [signature] 12/4/09 REVIEWER SIGNATURE/DATE [signature]

NF 10/09 RECEIPT CONFIRMATION 100609 (2).xls

4.1

4

F69924: Chain of Custody
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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC2708-MB	C067420.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
107-02-8	Acrolein	ND	20	5.0	ug/l	
107-13-1	Acrylonitrile	ND	10	2.0	ug/l	
71-43-2	Benzene	ND	1.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.26	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.23	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.33	ug/l	
104-51-8	n-Butylbenzene	ND	1.0	0.28	ug/l	
135-98-8	sec-Butylbenzene	ND	1.0	0.25	ug/l	
98-06-6	tert-Butylbenzene	ND	1.0	0.32	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.22	ug/l	
75-00-3	Chloroethane	ND	2.0	0.48	ug/l	
67-66-3	Chloroform	ND	1.0	0.28	ug/l	
95-49-8	o-Chlorotoluene	ND	1.0	0.25	ug/l	
106-43-4	p-Chlorotoluene	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.0	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.40	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.24	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.54	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.23	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.32	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.28	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.34	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.21	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.26	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.28	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.23	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.22	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.45	ug/l	

Method Blank Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC2708-MB	C067420.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.43	ug/l	
591-78-6	2-Hexanone	ND	10	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.69	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.32	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	5.0	2.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.78	ug/l	
74-87-3	Methyl chloride	ND	2.0	0.61	ug/l	
74-95-3	Methylene bromide	ND	2.0	0.30	ug/l	
75-09-2	Methylene chloride	ND	5.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	5.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.26	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	1.0	0.25	ug/l	
100-42-5	Styrene	ND	1.0	0.36	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.33	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.26	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.22	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.35	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.32	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.30	ug/l	
108-05-4	Vinyl Acetate	ND	10	3.6	ug/l	
	m,p-Xylene	ND	2.0	0.78	ug/l	
95-47-6	o-Xylene	ND	1.0	0.37	ug/l	

Method Blank Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC2708-MB	C067420.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	87-116%
17060-07-0	1,2-Dichloroethane-D4	94%	76-127%
2037-26-5	Toluene-D8	95%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Blank Spike Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC2708-BS	C067419.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	135	108	59-134
107-02-8	Acrolein	125	10.3	8*	33-157
107-13-1	Acrylonitrile	125	104	83	62-124
71-43-2	Benzene	25	24.3	97	83-124
108-86-1	Bromobenzene	25	22.7	91	83-115
74-97-5	Bromochloromethane	25	23.0	92	78-112
75-27-4	Bromodichloromethane	25	22.1	88	76-116
75-25-2	Bromoform	25	19.3	77	68-128
104-51-8	n-Butylbenzene	25	24.6	98	84-124
135-98-8	sec-Butylbenzene	25	25.0	100	86-127
98-06-6	tert-Butylbenzene	25	23.7	95	83-126
108-90-7	Chlorobenzene	25	23.9	96	87-115
75-00-3	Chloroethane	25	25.7	103	54-166
67-66-3	Chloroform	25	24.5	98	85-123
95-49-8	o-Chlorotoluene	25	24.8	99	84-121
106-43-4	p-Chlorotoluene	25	23.6	94	84-120
110-75-8	2-Chloroethyl vinyl ether	125	111	89	63-125
75-15-0	Carbon disulfide	25	28.2	113	67-147
56-23-5	Carbon tetrachloride	25	25.1	100	74-139
75-34-3	1,1-Dichloroethane	25	23.5	94	82-127
75-35-4	1,1-Dichloroethylene	25	26.7	107	75-133
563-58-6	1,1-Dichloropropene	25	25.7	103	87-127
96-12-8	1,2-Dibromo-3-chloropropane	25	18.3	73	61-118
106-93-4	1,2-Dibromoethane	25	21.5	86	80-115
107-06-2	1,2-Dichloroethane	25	22.3	89	76-122
78-87-5	1,2-Dichloropropane	25	23.0	92	81-120
142-28-9	1,3-Dichloropropane	25	22.1	88	81-113
594-20-7	2,2-Dichloropropane	25	27.4	110	77-138
124-48-1	Dibromochloromethane	25	21.0	84	74-116
75-71-8	Dichlorodifluoromethane	25	22.9	92	34-158
156-59-2	cis-1,2-Dichloroethylene	25	23.3	93	81-114
10061-01-5	cis-1,3-Dichloropropene	25	23.8	95	83-119
541-73-1	m-Dichlorobenzene	25	23.1	92	86-115
95-50-1	o-Dichlorobenzene	25	23.2	93	85-115
106-46-7	p-Dichlorobenzene	25	23.8	95	87-113
156-60-5	trans-1,2-Dichloroethylene	25	24.3	97	82-126

Blank Spike Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC2708-BS	C067419.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-02-6	trans-1,3-Dichloropropene	25	24.5	98	87-123
100-41-4	Ethylbenzene	25	24.2	97	87-118
591-78-6	2-Hexanone	125	102	82	58-125
87-68-3	Hexachlorobutadiene	25	22.3	89	71-133
98-82-8	Isopropylbenzene	25	26.9	108	87-131
99-87-6	p-Isopropyltoluene	25	24.0	96	83-125
108-10-1	4-Methyl-2-pentanone	125	103	82	62-125
74-83-9	Methyl bromide	25	25.2	101	55-151
74-87-3	Methyl chloride	25	24.4	98	55-173
74-95-3	Methylene bromide	25	22.1	88	81-116
75-09-2	Methylene chloride	25	23.8	95	69-125
78-93-3	Methyl ethyl ketone	125	110	88	61-127
1634-04-4	Methyl Tert Butyl Ether	25	23.0	92	75-116
91-20-3	Naphthalene	25	20.0	80	59-125
103-65-1	n-Propylbenzene	25	25.4	102	86-125
100-42-5	Styrene	25	22.7	91	78-118
630-20-6	1,1,1,2-Tetrachloroethane	25	22.4	90	81-119
71-55-6	1,1,1-Trichloroethane	25	25.0	100	79-133
79-34-5	1,1,2,2-Tetrachloroethane	25	21.9	88	71-120
79-00-5	1,1,2-Trichloroethane	25	22.3	89	80-114
87-61-6	1,2,3-Trichlorobenzene	25	18.8	75	64-126
96-18-4	1,2,3-Trichloropropane	25	18.5	74*	77-115
120-82-1	1,2,4-Trichlorobenzene	25	20.7	83	68-123
95-63-6	1,2,4-Trimethylbenzene	25	23.4	94	82-120
108-67-8	1,3,5-Trimethylbenzene	25	23.9	96	83-123
127-18-4	Tetrachloroethylene	25	24.4	98	80-131
108-88-3	Toluene	25	24.2	97	86-116
79-01-6	Trichloroethylene	25	24.1	96	85-124
75-69-4	Trichlorofluoromethane	25	26.2	105	66-156
75-01-4	Vinyl chloride	25	23.0	92	57-153
108-05-4	Vinyl Acetate	125	127	102	38-159
	m,p-Xylene	50	48.4	97	86-121
95-47-6	o-Xylene	25	23.5	94	83-121

Blank Spike Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC2708-BS	C067419.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	98%	76-127%
2037-26-5	Toluene-D8	98%	86-112%
460-00-4	4-Bromofluorobenzene	98%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F69924-6MS	C067432.D	1	12/09/09	AJ	n/a	n/a	VC2708
F69924-6MSD	C067433.D	1	12/09/09	AJ	n/a	n/a	VC2708
F69924-6	C067426.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	F69924-6 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	113	90	105	84	7	59-134/14
107-02-8	Acrolein	20 U		125	9.1	7*	8.7	7*	4	33-157/21
107-13-1	Acrylonitrile	10 U		125	116	93	111	89	4	62-124/13
71-43-2	Benzene	1.0 U		25	26.1	104	23.7	95	10	83-124/11
108-86-1	Bromobenzene	1.0 U		25	23.4	94	22.0	88	6	83-115/10
74-97-5	Bromochloromethane	1.0 U		25	24.1	96	22.4	90	7	78-112/10
75-27-4	Bromodichloromethane	1.0 U		25	23.0	92	21.6	86	6	76-116/10
75-25-2	Bromoform	1.0 U		25	19.9	80	19.4	78	3	68-128/11
104-51-8	n-Butylbenzene	1.0 U		25	24.3	97	22.0	88	10	84-124/10
135-98-8	sec-Butylbenzene	1.0 U		25	24.8	99	22.6	90	9	86-127/10
98-06-6	tert-Butylbenzene	1.0 U		25	23.5	94	21.6	86	8	83-126/10
108-90-7	Chlorobenzene	1.0 U		25	24.8	99	23.1	92	7	87-115/9
75-00-3	Chloroethane	2.0 U		25	25.5	102	23.9	96	6	54-166/20
67-66-3	Chloroform	1.0 U		25	25.8	103	23.4	94	10	85-123/10
95-49-8	o-Chlorotoluene	1.0 U		25	25.2	101	23.5	94	7	84-121/10
106-43-4	p-Chlorotoluene	1.0 U		25	23.5	94	22.4	90	5	84-120/10
110-75-8	2-Chloroethyl vinyl ether	5.0 U		125	ND	0*	ND	0*	nc	63-125/24
75-15-0	Carbon disulfide	2.0 U		25	28.0	112	25.3	101	10	67-147/12
56-23-5	Carbon tetrachloride	1.0 U		25	25.2	101	22.2	89	13	74-139/13
75-34-3	1,1-Dichloroethane	1.0 U		25	24.3	97	22.5	90	8	82-127/10
75-35-4	1,1-Dichloroethylene	1.0 U		25	28.4	114	24.7	99	14*	75-133/13
563-58-6	1,1-Dichloropropene	1.0 U		25	26.3	105	23.3	93	12*	87-127/10
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		25	19.6	78	19.1	76	3	61-118/15
106-93-4	1,2-Dibromoethane	1.0 U		25	22.0	88	20.6	82	7	80-115/10
107-06-2	1,2-Dichloroethane	1.0 U		25	23.5	94	22.1	88	6	76-122/11
78-87-5	1,2-Dichloropropane	1.0 U		25	24.4	98	22.3	89	9	81-120/11
142-28-9	1,3-Dichloropropane	1.0 U		25	22.4	90	21.3	85	5	81-113/11
594-20-7	2,2-Dichloropropane	1.0 U		25	26.7	107	23.9	96	11	77-138/12
124-48-1	Dibromochloromethane	1.0 U		25	21.2	85	19.8	79	7	74-116/11
75-71-8	Dichlorodifluoromethane	2.0 U		25	23.4	94	19.5	78	18	34-158/22
156-59-2	cis-1,2-Dichloroethylene	1.0 U		25	24.0	96	22.2	89	8	81-114/10
10061-01-5	cis-1,3-Dichloropropene	1.0 U		25	24.2	97	22.1	88	9	83-119/10
541-73-1	m-Dichlorobenzene	1.0 U		25	23.9	96	22.4	90	6	86-115/9
95-50-1	o-Dichlorobenzene	1.0 U		25	23.6	94	22.4	90	5	85-115/9
106-46-7	p-Dichlorobenzene	1.0 U		25	24.7	99	22.9	92	8	87-113/10
156-60-5	trans-1,2-Dichloroethylene	1.0 U		25	25.5	102	23.2	93	9	82-126/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F69924-6MS	C067432.D	1	12/09/09	AJ	n/a	n/a	VC2708
F69924-6MSD	C067433.D	1	12/09/09	AJ	n/a	n/a	VC2708
F69924-6	C067426.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	F69924-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	1.0	U	25	24.7	99	23.2	93	6	87-123/10
100-41-4	Ethylbenzene	1.0	U	25	24.9	100	22.8	91	9	87-118/10
591-78-6	2-Hexanone	10	U	125	111	89	105	84	6	58-125/14
87-68-3	Hexachlorobutadiene	2.0	U	25	18.4	74	18.2	73	1	71-133/12
98-82-8	Isopropylbenzene	1.0	U	25	26.7	107	24.5	98	9	87-131/10
99-87-6	p-Isopropyltoluene	1.0	U	25	23.3	93	21.5	86	8	83-125/9
108-10-1	4-Methyl-2-pentanone	5.0	U	125	120	96	113	90	6	62-125/13
74-83-9	Methyl bromide	2.0	U	25	26.2	105	25.3	101	3	55-151/21
74-87-3	Methyl chloride	2.0	U	25	26.4	106	24.6	98	7	55-173/22
74-95-3	Methylene bromide	2.0	U	25	23.9	96	22.6	90	6	81-116/10
75-09-2	Methylene chloride	5.0	U	25	24.1	96	22.3	89	8	69-125/11
78-93-3	Methyl ethyl ketone	5.0	U	125	115	92	108	86	6	61-127/13
1634-04-4	Methyl Tert Butyl Ether	1.0	U	25	24.2	97	22.8	91	6	75-116/10
91-20-3	Naphthalene	5.0	U	25	18.7	75	19.7	79	5	59-125/15
103-65-1	n-Propylbenzene	1.0	U	25	25.9	104	23.7	95	9	86-125/10
100-42-5	Styrene	1.0	U	25	23.2	93	21.3	85	9	78-118/11
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	25	22.7	91	21.5	86	5	81-119/10
71-55-6	1,1,1-Trichloroethane	1.0	U	25	25.6	102	22.7	91	12*	79-133/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	25	23.1	92	22.0	88	5	71-120/11
79-00-5	1,1,2-Trichloroethane	1.0	U	25	22.8	91	21.6	86	5	80-114/11
87-61-6	1,2,3-Trichlorobenzene	1.0	U	25	17.0	68	17.5	70	3	64-126/16
96-18-4	1,2,3-Trichloropropane	2.0	U	25	19.6	78	19.2	77	2	77-115/12
120-82-1	1,2,4-Trichlorobenzene	1.0	U	25	18.9	76	18.7	75	1	68-123/11
95-63-6	1,2,4-Trimethylbenzene	2.0	U	25	23.5	94	21.8	87	8	82-120/10
108-67-8	1,3,5-Trimethylbenzene	2.0	U	25	24.4	98	22.5	90	8	83-123/10
127-18-4	Tetrachloroethylene	1.0	U	25	24.2	97	22.0	88	10	80-131/12
108-88-3	Toluene	1.0	U	25	24.0	96	21.9	88	9	86-116/10
79-01-6	Trichloroethylene	1.0	U	25	26.8	107	24.1	96	11*	85-124/10
75-69-4	Trichlorofluoromethane	2.0	U	25	28.5	114	23.7	95	18*	66-156/15
75-01-4	Vinyl chloride	1.0	U	25	23.3	93	21.3	85	9	57-153/22
108-05-4	Vinyl Acetate	10	U	125	145	116	134	107	8	38-159/11
	m,p-Xylene	2.0	U	50	51.2	102	46.6	93	9	86-121/10
95-47-6	o-Xylene	1.0	U	25	23.5	94	22.1	88	6	83-121/10

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F69924-6MS	C067432.D	1	12/09/09	AJ	n/a	n/a	VC2708
F69924-6MSD	C067433.D	1	12/09/09	AJ	n/a	n/a	VC2708
F69924-6	C067426.D	1	12/09/09	AJ	n/a	n/a	VC2708

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

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-13, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Surrogate Recoveries	MS	MSD	F69924-6	Limits
1868-53-7	Dibromofluoromethane	100%	100%	98%	87-116%
17060-07-0	1,2-Dichloroethane-D4	98%	99%	94%	76-127%
2037-26-5	Toluene-D8	94%	95%	96%	86-112%
460-00-4	4-Bromofluorobenzene	96%	95%	99%	84-120%

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31142-MB	AA052587.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071

The QC reported here applies to the following samples: **Method:** SW846 8310

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	2.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	1.0	ug/l	
120-12-7	Anthracene	ND	2.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	0.050	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	0.050	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	0.050	ug/l	
218-01-9	Chrysene	ND	2.0	0.50	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	0.050	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	0.050	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	81%	43-121%
92-94-4	p-Terphenyl	89%	30-122%

Method Blank Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31146-MB	IJ61674.D	1	12/09/09	FEA	12/07/09	OP31146	GIJ2108

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-14, F69924-15, F69924-16, F69924-17

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	97%	38-122%

Method Blank Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31146-MB	IJ61710.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2109

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-14, F69924-15, F69924-16, F69924-17

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	97%	38-122%

Blank Spike Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31142-BS	AA052586.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071

The QC reported here applies to the following samples: **Method:** SW846 8310

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	20	15.9	80	60-102
208-96-8	Acenaphthylene	20	16.8	84	66-108
120-12-7	Anthracene	10	8.6	86	64-107
56-55-3	Benzo(a)anthracene	10	8.7	87	70-108
50-32-8	Benzo(a)pyrene	10	8.6	86	72-115
205-99-2	Benzo(b)fluoranthene	10	8.4	84	73-111
191-24-2	Benzo(g,h,i)perylene	10	7.9	79	69-113
207-08-9	Benzo(k)fluoranthene	10	8.0	80	70-111
218-01-9	Chrysene	10	8.6	86	71-111
53-70-3	Dibenzo(a,h)anthracene	10	8.0	80	71-114
206-44-0	Fluoranthene	20	16.9	85	68-110
86-73-7	Fluorene	20	15.7	79	63-102
193-39-5	Indeno(1,2,3-cd)pyrene	10	7.9	79	69-110
91-20-3	Naphthalene	20	13.8	69	55-94
90-12-0	1-Methylnaphthalene	20	14.3	72	55-97
91-57-6	2-Methylnaphthalene	20	13.8	69	51-97
85-01-8	Phenanthrene	20	17.1	86	67-108
129-00-0	Pyrene	20	17.2	86	71-107

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	80%	43-121%
92-94-4	p-Terphenyl	82%	30-122%

Blank Spike Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31146-BS	IJ61673.D	1	12/09/09	FEA	12/07/09	OP31146	GIJ2108

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (C8-C40)	0.85	0.792	93	54-110

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	105%	38-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31142-MS	AA052592.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
OP31142-MSD	AA052593.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071
F69924-1	AA052591.D	1	12/08/09	SL	12/05/09	OP31142	GAA2071

The QC reported here applies to the following samples: **Method:** SW846 8310

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	F69924-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	2.0	U	40	30.7	77	31.5	79	3	60-102/33
208-96-8	Acenaphthylene	2.0	U	40	30.7	77	31.7	79	3	66-108/32
120-12-7	Anthracene	2.0	U	20	16.7	84	17.0	85	2	64-107/28
56-55-3	Benzo(a)anthracene	0.20	U	20	17.6	88	17.3	87	2	70-108/19
50-32-8	Benzo(a)pyrene	0.20	U	20	18.1	91	17.5	88	3	72-115/20
205-99-2	Benzo(b)fluoranthene	0.20	U	20	17.4	87	16.9	85	3	73-111/20
191-24-2	Benzo(g,h,i)perylene	0.20	U	20	17.2	86	16.5	83	4	69-113/22
207-08-9	Benzo(k)fluoranthene	0.20	U	20	17.0	85	16.4	82	4	70-111/21
218-01-9	Chrysene	2.0	U	20	17.5	88	17.1	86	2	71-111/20
53-70-3	Dibenzo(a,h)anthracene	0.20	U	20	17.2	86	16.5	83	4	71-114/23
206-44-0	Fluoranthene	2.0	U	40	33.0	83	33.6	84	2	68-110/17
86-73-7	Fluorene	2.0	U	40	30.3	76	31.1	78	3	63-102/25
193-39-5	Indeno(1,2,3-cd)pyrene	0.20	U	20	17.1	86	16.5	83	4	69-110/22
91-20-3	Naphthalene	2.0	U	40	26.5	66	27.2	68	3	55-94/28
90-12-0	1-Methylnaphthalene	2.0	U	40	27.3	68	28.1	70	3	55-97/29
91-57-6	2-Methylnaphthalene	2.0	U	40	26.4	66	27.1	68	3	51-97/25
85-01-8	Phenanthrene	2.0	U	40	33.0	83	33.8	85	2	67-108/22
129-00-0	Pyrene	2.0	U	40	33.6	84	34.3	86	2	71-107/17

CAS No.	Surrogate Recoveries	MS	MSD	F69924-1	Limits
84-15-1	o-Terphenyl	80%	82%	79%	43-121%
92-94-4	p-Terphenyl	82%	79%	54%	30-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F69924
Account: SIESNCR Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31146-MS	IJ61712.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2109
OP31146-MSD	IJ61713.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2109
F69924-4	IJ61711.D	1	12/10/09	FEA	12/07/09	OP31146	GIJ2109

The QC reported here applies to the following samples: **Method:** FLORIDA-PRO

F69924-1, F69924-2, F69924-3, F69924-4, F69924-5, F69924-6, F69924-7, F69924-8, F69924-9, F69924-10, F69924-11, F69924-12, F69924-14, F69924-15, F69924-16, F69924-17

CAS No.	Compound	F69924-4 mg/l	Q	Spike mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (C8-C40)	0.348		1.63	1.68	81	1.64	79	2	54-110/28

CAS No.	Surrogate Recoveries	MS	MSD	F69924-4	Limits
84-15-1	o-Terphenyl	93%	87%	94%	38-122%

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F69924
Account: SIESNCR - Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP14080/GN37785	2.0	0.0	mg/l	50	50.9	101.8	90-110%
Nitrogen, Nitrate	GP14080/GN37785	0.10	0.0	mg/l	2.5	2.58	103.2	90-110%
Nitrogen, Nitrite	GP14080/GN37785	0.10	0.0	mg/l	2.5	2.59	103.6	90-110%
Sulfate	GP14080/GN37785	2.0	0.0	mg/l	50	48.4	96.8	90-110%
Sulfide	GN37738	1.0	0.0	mg/l	13.4	13.5	101.0	76-112%
Total Carbon	GP14057/GN37742	1.0	0.0	mg/l	15	15.3	102.0	90-110%
Total Organic Carbon	GP14044/GN37725	1.0	0.0	mg/l	15	15.5	103.3	90-110%
Total Organic Carbon	GP14045/GN37725	1.0	0.0	mg/l	15	15.8	105.3	90-110%

Associated Samples:
Batch GN37738: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
Batch GP14044: F69924-1, F69924-3, F69924-6
Batch GP14045: F69924-11, F69924-14, F69924-16, F69924-7, F69924-9
Batch GP14057: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
Batch GP14080: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F69924
Account: SIESNCR - Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP14080/GN37785	F69924-16	mg/l	10.2	10.2	0.0	0-20%
Nitrogen, Nitrate	GP14080/GN37785	F69924-16	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrite	GP14080/GN37785	F69924-16	mg/l	0.050 U	0.0	0.0	0-20%
Sulfate	GP14080/GN37785	F69924-16	mg/l	10.7	10.4	2.8	0-20%
Sulfide	GN37738	F69924-1	mg/l	2.0	2.0	0.0	0-34%
Total Carbon	GP14057/GN37742	F69924-1	mg/l	16.0	15.9	0.6	0-20%
Total Organic Carbon	GP14044/GN37725	F69812-1	mg/l	22.2	22.4	0.9	0-20%
Total Organic Carbon	GP14045/GN37725	F69924-7	mg/l	49.7	49.9	0.4	0-20%

Associated Samples:
Batch GN37738: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
Batch GP14044: F69924-1, F69924-3, F69924-6
Batch GP14045: F69924-11, F69924-14, F69924-16, F69924-7, F69924-9
Batch GP14057: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
Batch GP14080: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F69924
Account: SIESNCR - Solutions-IES, Inc
Project: Cecil Field North Fuel Farm; Jacksonville, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP14080/GN37785	F69924-16	mg/l	10.2	50	59.0	97.6	90-110%
Nitrogen, Nitrate	GP14080/GN37785	F69924-16	mg/l	0.050 U	2.5	3.1	124.0N(a)	90-110%
Nitrogen, Nitrite	GP14080/GN37785	F69924-16	mg/l	0.050 U	2.5	3.1	124.0N(a)	90-110%
Sulfate	GP14080/GN37785	F69924-16	mg/l	10.7	50	54.2	87.0N(a)	90-110%
Sulfide	GN37738	F69924-1	mg/l	2.0	9.59	11.4	97.1	76-112%
Total Carbon	GP14057/GN37742	F69924-1	mg/l	16.0	15	23.2	48.0N(a)	90-110%
Total Organic Carbon	GP14044/GN37725	F69812-1	mg/l	22.2	15	36.8	97.3	90-110%
Total Organic Carbon	GP14045/GN37725	F69924-7	mg/l	49.7	15	58.6	59.3N(a)	90-110%

Associated Samples:
Batch GN37738: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
Batch GP14044: F69924-1, F69924-3, F69924-6
Batch GP14045: F69924-11, F69924-14, F69924-16, F69924-7, F69924-9
Batch GP14057: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
Batch GP14080: F69924-1, F69924-11, F69924-14, F69924-16, F69924-3, F69924-6, F69924-7, F69924-9
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

APPENDIX B

GROUNDWATER SAMPLING LOGS

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-372-13R | **Sample ID:** CEF-372-13R | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	LDPE (Teflon)	8.18	Peristaltic Pump	1.5 to 11.5 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
8 ft	1505	1528	1.20	180

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1511	0.25	0.25	180	8.25	7.03	24.31	532	2.27	14	99.6	yellow	—
1516	0.25	0.50	180	8.26	7.03	24.47	528	2.14	13	100.2	yellow	—
1521	0.25	0.75	180	8.26	7.03	24.50	521	1.94	9.7	101.7	yellow	—
1526	0.25	1.00	180	8.26	7.03	24.52	516	1.92	8.4	103.1	yellow	—

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Dawn Marshall / Solutions-IES	Dawn Marshall	1528	1600

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y N	Y (N)	— µm	—	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
2	2	AG	1 L	None	PAHs 8310	PP
2	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
2	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks: Replaced tubing

Field Kits: DO: 1.0

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-49S | **Sample ID:** CEF-076-49S | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	LDPE (Teflon)	7.43	(Peristaltic Pump)	45 to 50 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from bottom	11:31	11:51	1.0	240

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
11:36	.05	.05	240	7.81	2.34	24.30	2764	.53	5.01	401.1	clear	none
11:41	.35	.4	240	7.81	2.37	24.27	2719	.31	4.07	401.8	"	"
11:46	.3	.7	240	7.81	2.37	24.36	2665	.20	3.42	401.0	"	"
11:51	.3	1.0	240	7.81	2.38	24.38	2629	.17	3.20	399.3	"	"

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Traci Fulkerson/Terraine	[signature]	11:51	12:27

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
(Y) N	Y (N)	——— µm	———	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
✓	2	AG	1 L	None	PAHs 8310	PP
✓	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
✓	3	PE	250 mL	NaOH ZnAC	Sulfide 376.2	PP
✓	1	PE	500 mL	None	Sulfate 300.0	PP
✓	2	AG	40 mL	HCL	TOC 415.1	PP
✓	2	AG	40mL	None	Inorganic Carbon 415.2	PP
✓	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 3

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-50I** | **Sample ID:** CEF-076-051I | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	LDPE ~~Teflon~~	7.25	(Peristaltic Pump)	75 to 80 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from bottom	12:36	12:56	.85	

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
12:41	.05	.05	220	7.52	2.50	24.98	3777	.41	4.50	356.7	clear	sulfur
12:46	.25	.3	220	7.51	2.57	25.10	3742	.25	3.43	280.7	"	"
12:51	.3	.6	220	7.52	2.58	25.25	3692	.15	3.43	241.0	"	"
12:56	.25	.85	220	7.52	2.58	25.30	3652	.15	5.67	223.3	"	"

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Traci Fulkerson/Terraine	[signature]	12:56	13:39

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
(Y) N	Y (N)	— µm	—	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 0.7

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

** Denotes hazardous well

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-57S | **Sample ID:** CEF-076-57S | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	LDPE (Teflon)	6.69	(Peristaltic Pump)	30 to 35 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from bottom	15:50	16:30	1.2	220

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1600	.05	.05	—	6.92	2.24	23.09	2418	6.62	6.35	418.7	clear	none
1615	.045	.5	240	7.49	2.35	23.64	2304	.67	4.17	391.3	"	"
1620	.2	.7	220	7.48	2.38	23.56	2247	.30	2.44	379.6	"	"
1625	.25	.95	220	7.49	2.39	23.60	2213	.30	3.26	376.2	"	"
16:30	.25	1.2	220	7.45	2.38	23.64	2188	.23	2.84	374.2	"	"

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Traci Fulkerson/Terraine	[signature]	16:30	

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
(Y) N	Y (N)	— µm	—	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	PE	250 mL	NaOH ZnAC	Sulfide 376.2	PP
	1	PE	500 mL	None	Sulfate 300.0	PP
	2	AG	40 mL	HCL	TOC 415.1	PP
	2	AG	40mL	None	Inorganic Carbon 415.2	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks: Delay b/t Readings 1 & 2 b/c of pump issues

Field Kits: DO: 0.8

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%

Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)

Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-61I | **Sample ID:** CEF-076-61I | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	LDPE (Teflon)	10.69	(Peristaltic Pump)	65 to 70 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from bottom	1420	14:40	.65	140

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1425	.05	.05	185	11.55	2.20	23.01	5311	2.24	20.1	384.4	Very light tea	Sulfur
14:30	.25	.3	185	12.08	2.34	23.21	5443	1.69	12.2	294.2	"	"
14:35	.2	.5	140	11.97	2.35	23.12	5370	1.58	10.7	265.8	"	"
14:40	.15	.65	140	11.91	2.37	23.05	5247	1.59	11.3	239.1	"	"

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Traci Fulkerson/Terraine	[signature]	14:40	15:34

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
(Y) N	Y (N)	— µm		Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	PE	250 mL	NaOH ZnAC	Sulfide 376.2	PP
	1	PE	500 mL	None	Sulfate 300.0	PP
	2	AG	40 mL	HCL	TOC 415.1	PP
	2	AG	40mL	None	Inorganic Carbon 415.2	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 1.0

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation, optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU, optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-70I** | **Sample ID:** CEF-076-70I | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	~~LDPE~~ Teflon	7.75	Peristaltic Pump	65 to 70 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2ft from bottom	1615	1645	0.6	130

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1620	0.1	0.1	130	7.87	2.27	24.40	[redacted]	0.57	17.7	290.9	[redacted]	Petroleum
1625	0.1	0.2	130	7.87	2.22	24.35	9623	0.40	13.5	281.6	Clear	"
1630	0.1	0.3	130	7.87	2.20	24.46	9691	0.31	12.2	259.7	Clear	"
1635	0.1	0.4	130	7.87	2.20	24.51	9680	0.25	11.7	255.1	Clear	"
1640	0.1	0.5	130	7.87	2.20	24.52	9677	0.22	10.8	247.6	Clear	"
1645	0.1	0.6	130	7.87	2.20	24.50	9675	0.21	10.0	244.9	"	"

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Elizabeth Geisinger/Terrano	Elizabeth Geisinger	1645	1727

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y (N)	Y (N)	N/A µm	N/A	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
1	2	AG	1 L	None	PAHs 8310	PP
2	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
3	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 0.8

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

** Denotes hazardous well

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-93S | **Sample ID:** CEF-076-93S | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	(LDPE) Teflon	9.34	Peristaltic Pump	25 to 30 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from Bottom	1258	1333	1.1	120

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1303	0.1	0.1	160	9.83	6.01	25.42	336	0.96	60.1	3.9	Silty	Gas
1308	0.2	0.3	130	9.84	5.96	25.00	293	0.46	60.0	-11.7	Silty	—
1313	0.1	0.4	130	9.84	5.94	25.20	280	0.32	59.9	-27.8	"	—
1318	0.1	0.5	130	9.89	5.92	24.78	275	0.24	59.6	-50.9	"	—
1323	0.2	0.7	120	9.89	5.90	24.37	273	0.21	59.3	-62.1	"	—
1328	0.2	0.9	120	9.89	5.89	24.31	272	0.20	59.2	-64.4	"	—
1333	0.2	1.1	120	9.89	5.88	24.37	272	0.19	59.5	-67.9	"	—

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Elizabeth Geigel Terrane	Elizabeth Geigel	1333	1421

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y (N)	Y (N)	N/A µm	N/A	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
2	2	AG	1 L	None	PAHs 8310	PP
2	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
2	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks: Not enough water in tubing to fill all 3 VOCs

Field Kits: DO: 1

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field	**Site Location:** Jacksonville, Florida
Well Number: CEF-076-94S	**Sample ID:** CEF-076-94S **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	(LDPE) Teflon	10.58	Peristaltic Pump	5 to 15 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from bottom	1438	1503	0.7	150

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1443	0.1	0.1	150	10.67	5.94	25.31	356	1.12	71.7	35.1	Silty	—
1448	0.1	0.2	150	10.67	5.95	25.58	366	0.71	70.4	29.6	Slightly cloudy	—
1453	0.2	0.4	150	10.67	5.94	25.63	371	0.55	67.1	23.0	Clear	—
1458	0.1	0.5	150	10.67	5.94	25.62	373	0.53	63.2	23.3	Clear	—
1503	0.2	0.7	150	10.67	5.93	25.57	372	0.44	65.0	20.4	Clear	—

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Elizabeth Geiger Ferraino	[signature]	1503	1550

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y (N)	Y (N)	N/A µm	N/A	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
2	2	AG	1 L	None	PAHs 8310	PP
2	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
3	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 1

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field		**Site Location:** Jacksonville, Florida
Well Number: CEF-076-95S	**Sample ID:** CEF-076-95S	**Date:** 12-3-09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	1/4 (3/8) 1/2	(LDPE) Teflon	8.00	Peristaltic Pump	5 to 15 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
	1505	1541		140

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1515	0.1	0.1	140	8.44	4.53	22.64	0.232	1.60	47.1	179.4	cloudy	none
1520	0.15	0.25	140	8.53	4.76	22.96	0.151	0.93	50.0	145.9	cloudy	none
1525	0.15	0.40	140	8.59	5.01	22.39	0.094	0.62	50.4	102.8	cloudy	none
1530	0.15	0.55	140	8.65	5.07	22.04	0.080	0.48	51.4	44.1	cloudy	none
1535	0.15	0.70	140	8.74	5.06	22.14	0.078	0.35	52.4	27.4	cloudy	none
1540	0.15	0.85	140	8.78	5.06	22.19	0.076	0.31	50.9	16.3	cloudy	none

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Kathryn Doll / Solutions-IES	Kathryn Doll	1542	1630

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y N	Y (N)	µm		Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	PE	250 mL	NaOH ZnAC	Sulfide 376.2	PP
	1	PE	500 mL	None	Sulfate 300.0	PP
	2	AG	40 mL	HCL	TOC 415.1	PP
	2	AG	40mL	None	Inorganic Carbon 415.2	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks: * Peristaltic on lowest setting; drawdown dropping slightly

Field Kits: DO: 1.0 mg/L

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-98D | **Sample ID:** CEF-076-98D | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	~~Tubing~~ Teflon	13.01	(Peristaltic Pump)	105 to 110 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 feet from bottom	8:50	9:55	.85	60

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
9:00	.05	.05	60	14.32	2.69	22.71	8019	.93	—	244.2	cloudy, light orange	—
9:05	.05	.1	60	14.90	2.90	22.57	8093	.51	+1000+	151.5	"	—
9:10	.05	.15	60	15.03	2.91	22.56	8108	.48	+1000+	139.8	"	—
9:20	.15	.3	60	15.70	2.92	22.78	8167	.56	104	103.8	"	sulfur
9:25	.1	.4	60	16.00	2.92	22.70	8166	.50	48.6	96.1	cloudy	"
9:30	.05	.45	60	16.22	2.93	22.61	8172	.44	31.3	89.8	slightly	"
9:35	.1	.55	60	16.56	2.94	22.89	8182	.39	19.3	85.3	"	"
9:40	.05	.6	60	16.86	2.97	22.92	8246	.36	12.8	79.6	"	"
9:45	.1	.7	60	17.12	2.97	23.20	8303	.34	9.63	75.1	clear	strong ~~sulfur~~
9:50	.1	.8	60	17.35	2.97	23.24	8303	.34	12.4	73.8	"	"
9:55	.05	.85	60	17.54	2.99	23.46	8299	.30	10.4	72.4	"	"

very silt

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Traci Fulkerson/Terraine	[signature]	9:55	11:00

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
(Y) N	Y (N)	— µm	—	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks: 1st reading delayed b/c of slow pump rate/half full flow cell, also 3rd Flow rate as low as possible w/o pump turning off

+1000+ indicates blinking code

Field Kits: DO: 0.3

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-99D | **Sample ID:** CEF-076-99D | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	1/4 3/8 1/2	LDPE Teflon	11.05	Peristaltic Pump	95 to 100 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
24 from Bottom	1100	1125	0.6	90

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1105	0.1	0.1	130	12.11	6.36	26.21	3052	1.00	36.4	-16.4	clear	—
1109	0.1	0.2	115	12.33	6.43	26.70	3014	0.54	9.69	-20.2	—	—
1113	0.1	0.3	100	12.39	6.44	26.80	3015	0.38	5.27	-23.9	—	—
1117	0.1	0.4	90	12.36	6.44	26.79	3010	0.30	4.40	-24.9	—	—
1121	0.1	0.5	90	12.36	6.44	26.78	3009	0.26	3.71	-25.1	—	—
1125	0.1	0.6	90	12.36	6.44	26.81	3005	0.24	3.07	-26.2	—	—

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Elizabeth Geiger / Terraine	[signature]	1125	1240

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y (N)	Y (N)	N/A µm	NA	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
2	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
3	3	PE	250 mL	NaOH ZnAC	Sulfide 376.2	PP
1	1	PE	500 mL	None	Sulfate 300.0	PP
2	2	AG	40 mL	HCL	TOC 415.1	PP
2	2	AG	40mL	None	Inorganic Carbon 415.2	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 0.20

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-100D | **Sample ID:** CEF-076-100D | **Date:** 12-3-09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	1/4 (3/8) 1/2	(LDPE) Teflon	7.27	Peristaltic Pump	110 to 115 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from bottom	1050	1126	0.65	100

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1055	0.05	0.05	100	8.45	5.83	23.19	3.552	1.47	54.3	25.5	lt brown	none
1100	0.10	0.15	100	9.09	5.90	23.02	3.616	0.80	8.29	0.4	lt brown	none
1105	0.10	0.25	100	9.34	5.91	22.98	3.620	0.29	4.20	-8.0	lt brown	none
1110	0.10	0.35	100	9.66	5.92	22.99	3.619	0.19	4.00	-12.7	clear	none
1115	0.10	0.45	100	9.69	5.92	23.12	3.631	0.17	8.26	-12.5	clear	none
1120	0.10	0.55	100	9.82	5.94	23.15	3.636	0.15	5.94	-14.2	clear	none
1125	0.10	0.65	100	10.08	5.94	23.19	3.645	0.12	6.41	-18.2	clear	none

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Kathryn Doll / Solutions-IES	Kathryn Doll	1127	1218

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y N	Y (N)	µm		Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	PE	250 mL	NaOH ZnAC	Sulfide 376.2	PP
	1	PE	500 mL	None	Sulfate 300.0	PP
	2	AG	40 mL	HCL	TOC 415.1	PP
	2	AG	40mL	None	Inorganic Carbon 415.2	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks: * Peristaltic on lowest setting - depth to water is dropping slightly

Field Kits: DO: 0 mg/L

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-110D** | **Sample ID:** CEF-076-110D | **Date:** 12/3/09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	(LDPE) Teflon	13.28	Peristaltic Pump	105 to 110 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from bottom	851	926	0.7	140

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
856	0.1	0.1	140	14.44	2.45	22.33	6591	0.71	33.8	370.2	Clear	petroleum
901	0.1	0.2	140	14.44	2.45	22.19	6630	0.63	27.5	369.7	Clear	—
906	0.1	0.3	140	14.40	2.46	22.00	6670	0.64	20.0	365.1	Clear	—
911	0.1	0.4	140	14.40	2.47	21.99	6679	0.50	15.9	359.2	Clear	—
916	0.1	0.5	140	14.40	2.48	22.04	6664	0.33	13.5	354.9	Clear	—
921	0.1	0.6	140	14.40	2.50	22.06	6668	0.26	12.9	351.0	Clear	—
926	0.1	0.7	140	14.40	2.50	22.09	6664	0.20	13.4	347.1	Clear	—

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Elizabeth Geiger Menaire	Elizabeth C. M[illegible]	926	1020

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y (N)	Y (N)	N/A µm	N/A	Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
2	2	AG	1 L	None	PAHs 8310	PP
2	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
3	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 1

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

** Denotes hazardous well

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-113S** | **Sample ID:** CEF-076-113S | **Date:** 12-3-09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	(1/4) 3/8 1/2	(LDPE) Teflon	10.19	Peristaltic Pump	35 to 40 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2ft from bottom	1635	1706	0.6	150

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1645	0.2	0.2	150	10.25	3.03	23.61	2.565	1.13	7.89	219.1	yellow	strong
1650	0.1	0.3	150	10.25	3.08	23.63	2.573	0.58	7.35	161.9	yellow	strong
1655	0.1	0.4	150	10.25	3.10	23.71	2.575	0.34	6.43	137.9	yellow	strong
1700	0.1	0.5	150	10.25	3.11	23.66	2.579	0.27	6.75	127.8	yellow	strong
1705	0.1	0.6	150	10.25	3.12	23.75	2.579	0.24	7.45	117.2	yellow	strong

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Kathryn Doll / Solutions-IES	Kathryn Doll	1707	1710

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y N	Y (N)	µm		Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 0.8 mg/L

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

** Denotes hazardous well

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field | **Site Location:** Jacksonville, Florida

Well Number: CEF-076-116D | **Sample ID:** CEF-076-116D | **Date:** 12 3-09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	1/4 (3/8) 1/2	(LDPE) Teflon	14.03	Peristaltic Pump	105 to 110 feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2 ft from bottom	1325	1356	0.85	120

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
1330	0.1	0.1	120	14.03	2.94	23.04	7.522	1.90	4.71	215.2	cloudy	mild
1335	0.15	0.25	120	14.03	2.91	22.90	8.358	1.33	1.82	202.9	yellow	sulfuric
1340	0.15	0.40	120	14.05	2.91	23.26	8.490	0.62	1.41	192.6	yellow	sulfuric
1345	0.15	0.55	120	14.06	2.91	23.63	8.585	0.35	1.14	189.9	yellow	sulfuric
1350	0.15	0.70	120	14.06	2.91	23.71	8.591	0.22	1.16	182.4	yellow	sulfuric
1355	0.15	0.85	120	14.04	2.91	23.81	8.605	0.16	1.12	178.3	yellow	sulfuric

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Kathryn Dall/Solutions-IES	Kathryn Dall	1357	1450

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y N	Y (N)	µm		Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	PE	250 mL	NaOH ZnAC	Sulfide 376.2	PP
	1	PE	500 mL	None	Sulfate 300.0	PP
	2	AG	40 mL	HCL	TOC 415.1	PP
	2	AG	40mL	None	Inorganic Carbon 415.2	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 0.8 mg/L

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

SOLUTIONS-IES
GROUNDWATER SAMPLING LOG

Site Name: North Fuel Farm - Cecil Field	**Site Location:** Jacksonville, Florida
Well Number: CEF-076-117D** **Sample ID:** CEF-076-117D	**Date:** 12-3-09

PURGING DATA

Well Diameter (inches):	Tubing Diameter (inches):	Tubing:	Static Depth to water (feet):	Purge pump type or bailer:	Well Screen Interval Depth:
1 (2) 3 4	1/4 (3/8) 1/2	(LDPE) Teflon	12.21	Peristaltic Pump	feet to feet

Initial Pump or Tubing Depth in well:	Purging Initiated:	Purging Ended:	Total Volume Purged (Gallons):	Sample Pump Flow Rate (mL/min):
2ft from bottom	0905	0936	0.5	125

Time	Volume Purged (gallons)	Cumulative Volume Purged (gallons)	Purge Rate: (mL/min)	Depth to Water (feet)	pH (SU)	Temp (°C)	Cond (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU's)	ORP (m/v)	Color (describe)	Odor (describe)
0915	0.1	0.1	125	12.25	5.24	22.00	0.027	2.01	28.5	-1.7	clear	mild
0920	0.1	0.2	125	12.25	5.13	22.16	0.026	1.27	28.6	-14.3	clear	mild
0925	0.1	0.3	125	12.25	5.09	22.27	0.025	0.72	19.69	-24.2	clear	mild
0930	0.1	0.4	125	12.25	5.07	22.29	0.025	0.68	20.4	-30.5	clear	mild
0935	0.1	0.5	125	12.25	5.02	22.29	0.024	0.53	20.6	-30.3	clear	mild

Well Capacity (Gallons/Foot): **0.75"** = 0.02 **1"** = 0.04 **1.25"** = 0.06 **2"** = 0.16 **3"** = 0.37 **4"** = 0.65 **5"** = 1.02 **6"** = 1.47 **12"** = 5.88

Tubing Inside Diameter Capacity (Gallons/Foot): **1/8"** = 0.0006 **3/16"** = 0.0014 **1/4"** = 0.0026 **5/16"** = 0.004 **3/8"** = 0.006 **1/2"** = 0.010 **5/8"** = 0.016

SAMPLING DATA

Sampled By/Affiliation:	Sampler(s) Signature:	Sampling Initiated:	Sampling Ended:
Kathryn Doll / Solutions-IES	Kathryn Doll	0937	1035

Field Decontamination:	Field-Filtered:	Filter Size:	Filtration Equipment Type:	Duplicate:
Y N	Y N	µm		Y (N)

SAMPLE CONTAINER INFORMATION

Sample ID Code	# Containers	Material Code	Volume	Preservative Used	Intended Analysis	Sampling Equipment Code
	2	AG	1 L	None	PAHs 8310	PP
	2	AG	1 L	H_2SO_4	TRPH FL-PRO	PP
	3	PE	250 mL	NaOH ZnAC	Sulfide 376.2	PP
	1	PE	500 mL	None	Sulfate 300.0	PP
	2	AG	40 mL	HCL	TOC 415.1	PP
	2	AG	40mL	None	Inorganic Carbon 415.2	PP
	3	CG	40 mL	HCl	VOCs 8260B	RFPP

Remarks:

Field Kits: DO: 1.0 mg/L

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

Sampling/Purging: **APP** = After Peristaltic Pump **B** = Bailer **BP** = Bladder Pump **ESP** = Electric Submersible Pump **PP** = Peristaltic Pump

Equipment Codes: **RFPP** = Reverse Flow Peristaltic Pump **SM** = Straw Method (Tubing Gravity Drain) **VT** = Vacuum Trap **O** = Other (Specify)

Stabilization criteria for range of variation of last three consecutive readings: **pH:** + 0.2 units **Temperature:** + 0.2°C **Specific Conductance:** + 5%
Dissolved Oxygen: all readings < 20% saturation; optionally, + 0.2 mg/L or + 10% (whichever is greater)
Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

** Denotes Hazardous Well

APPENDIX C

WEEKLY AS SYSTEM O&M LOGS

NORTH FUI ARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 1:30pm
Date: JUNE 16, 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	86	PSI
Air Compressor Temperature	191	°F	Air Compressor Run Hours	022921	Hours
Air Compressor Load Hours	022137	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge MAX	(Green)	Red	Air Tank Post-filter Gauge 3/4 up	(Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
AD-12	On (Off)	0	80	AD-13	(On) Off	20	70
AD-16	On (Off)	0	70	AD-17	(On) Off	20	60
AD-31	On (Off)	20	80	AD-34	(On) Off	20	70
AD-33	On (Off)	0	80	AS-30	(On) Off	7	80
AS-31	On (Off)	6	45	AS-37	(On) Off	0	40
AS-36	On (Off)	0	80	AS-40	(On) Off	0	90
AS-38	On (Off)	0	55	AS-42	(On) Off	20	50
AS-41	On (Off)	0	35	AD-11	(On) Off	20+	80
AD-08	On (Off)	0	90	AD-14	(On) Off	20	70
AD-09	On (Off)	0	70	AS-23	(On) Off	0	0
AD-10	On (Off)	0	65	AS-24	(On) Off	0	80
AS-17	On (Off)	0	80	AS-25	(On) Off	15	30
AS-18	On (Off)	2	70	BD-101	(On) Off	0	75
AS-44	On (Off)	0	55	BD-105	(On) Off	0	20
AS-45	On (Off)	0	80	BD-11	(On) Off	6	100
BD-05	On (Off)	1	40	BD-12	(On) Off	0	90
BD-06	On (Off)	1	80	BD-13	(On) Off	2	80
BD-102	On (Off)	0	35	BD-83	(On) Off	20+	85
BD-106	On (Off)	0	80	BD-90	(On) Off	12	75
BD-91	On (Off)	0	90	BD-96	(On) Off	0	80
BD-97	On (Off)	0	80	AD-19	(On) Off	20	80
AD-15	On (Off)	0	70	AD-20	(On) Off	20+	65
AD-18	On (Off)	0	70	AD-30	On (Off)	0	80
AS-29	On (Off)	0	80	AD-32	(On) Off	0	70
AS-32	On (Off)	2	70	AS-35	(On) Off	17	60
BD-100	On (Off)	0	80	AS-39	(On) Off	0	35
BD-19	On (Off)	0	70	AS-43	(On) Off	7	45
BD-20	On (Off)	20	75	BD-26	(On) Off	0	80
BD-21	On (Off)	0	100	BD-27	(On) Off	11	50
BD-82	On (Off)	0	70	BD-32	(On) Off	0	70
BD-89	On (Off)	0	80	BD-52	(On) Off	20	70
BD-94	On (Off)	0	80	BD-81	(On) Off	20	45
BD-95	On (Off)	1	80	BD-88	(On) Off	17	70

Comments:

TO: MR BRIAN REAR
FIELD SERVICE MANAGER
SOLUTIONS-IES INC.
919 873-1060
FAX: 919 873-1074

NORTH FUI ARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVES FROM TRAILER 8:55am
Date: JUNE 24, 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	98	PSI
Air Compressor Temperature	183	°F	Air Compressor Run Hours	023109	Hours
Air Compressor Load Hours	022,324	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge MAX	(Green)	Red	Air Tank Post-filter Gauge 1/2 up	(Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)
AD-12	(On)	Off	0	75	AD-13	On	(Off)	0	90
AD-16	On	(Off)	20+	60	AD-17	On	(Off)	0	60
AD-31	(On)	Off	10	80	AD-34	On	(Off)	0	90
AD-33	(On)	Off	0	90	AS-30	On	(Off)	0	80
AS-31	(On)	Off	8	50	AS-37	On	(Off)	0	60
AS-36	(On)	Off	5	70	AS-40	On	(Off)	0	105
AS-38	(On)	Off	7	40	AS-42	On	(Off)	0	70
AS-41	(On)	Off	8	35	AD-11	On	(Off)	20+	90
AD-08	(On)	Off	0	95	AD-14	On	(Off)	0	90
AD-09	(On)	Off	2	60	AS-23	On	(Off)	0	0
AD-10	(On)	Off	20+	55	AS-24	On	(Off)	0	90
AS-17	(On)	Off	20+	90	AS-25	On	(Off)	0	58
AS-18	(On)	Off	7	60	BD-101	On	(Off)	0	80
AS-44	(On)	Off	0	40	BD-105	On	(Off)	0	20
AS-45	(On)	Off	0	90	BD-11	On	(Off)	7	115
BD-05	(On)	Off	20+	40	BD-12	On	(Off)	0	90
BD-06	(On)	Off	2	80	BD-13	On	(Off)	0	100
BD-102	(On)	Off	6	35	BD-83	On	(Off)	0	100
BD-106	(On)	Off	5	80	BD-90	On	(Off)	0	75
BD-91	(On)	Off	7	100	BD-96	On	(Off)	0	90
BD-97	(On)	Off	9	80	AD-19	On	(Off)	0	80
AD-15	(On)	Off	5	55	AD-20	On	(Off)	0	85
AD-18	(On)	Off	20+	60	AD-30	On	(Off)	0	90
AS-29	(On)	Off	0	90	AD-32	On	(Off)	0	20
AS-32	(On)	Off	0	85	AS-35	On	(Off)	0	90
BD-100	(On)	Off	12	90	AS-39	On	(Off)	0	50
BD-19	(On)	Off	0	65	AS-43	On	(Off)	0	60
BD-20	(On)	Off	20	65	BD-26	On	(Off)	0	95
BD-21	(On)	Off	12	115	BD-27	On	(Off)	0	80
BD-82	(On)	Off	0	90	BD-32	On	(Off)	0	70
BD-89	On	(Off)	8	80	BD-52	On	(Off)	0	90
BD-94	(On)	Off	11	85	BD-81	On	(Off)	0	50
BD-95	(On)	Off	0	80	BD-88	On	(Off)	0	60

Comments: SYSTEM OPERATING ON ARRIVAL. EMPTIED 5 GAL CONDENSATE JERRICAN.

TO: MR. BRIAN REBAR
FIELD SERVICES MANAGER
SOLUTIONS-IES, INC
919 873-1060
FAX: 919 873-1074

NORTH FUI ARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHALO Time In: ARRIVED FROM TRAILER 10/25
Date: JUNE 29 2009 Time Out: _____

MAT RED!

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	80	PSI
Air Compressor Temperature	177	°F	Air Compressor Run Hours	023114	Hours
Air Compressor Load Hours	022330	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge MAX	(Green)	Red	Air Tank Post-filter Gauge	Green	(Red)

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
AD-12	On (Off)	0	65	AD-13	(On) Off	20	70
AD-16	On (Off)	0	70	AD-17	(On) Off	20+	60
AD-31	On (Off)	0	70	AD-34	(On) Off	5	65
AD-33	On (Off)	0	70	AS-30	(On) Off	0	80
AS-31	On (Off)	0	50	AS-37	(On) Off	0	55
AS-36	On (Off)	0	70	AS-40	(On) Off	0	60
AS-38	On (Off)	0	50	AS-42	(On) Off	20	60
AS-41	On (Off)	0	35	AD-11	(On) Off	20+	70
AD-08	On (Off)	0	70	AD-14	(On) Off	20+	70
AD-09	On (Off)	0	70	AS-23	(On) Off	0	0
AD-10	On (Off)	0	70	AS-24	(On) Off	0	70
AS-17	On (Off)	0	70	AS-25	(On) Off	20+	50
AS-18	On (Off)	0	70	BD-101	(On) Off	0	65
AS-44	On (Off)	0	55	BD-105	(On) Off	20+	20
AS-45	On (Off)	0	70	BD-11	(On) Off	5	90
BD-05	On (Off)	0	40	BD-12	(On) Off	0	70
BD-06	On (Off)	0	55	BD-13	(On) Off	1	70
BD-102	On (Off)	0	35	BD-83	(On) Off	13	80
BD-106	On (Off)	0	70	BD-90	(On) Off	0	55
BD-91	On (Off)	0	80	BD-96	(On) Off	0	65
BD-97	On (Off)	0	65	AD-19	(On) Off	20+	50
AD-15	On (Off)	0	60	AD-20	(On) Off	0	65
AD-18	On (Off)	0	70	AD-30	(On) Off	5	70
AS-29	On (Off)	0	70	AD-32	(On) Off	0	60
AS-32	On (Off)	0	70	AS-35	(On) Off	20+	65
BD-100	On (Off)	0	65	AS-39	(On) Off	0	45
BD-19	On (Off)	0	70	AS-43	(On) Off	8	60
BD-20	On (Off)	20	65	BD-26	(On) Off	0	70
BD-21	On (Off)	0	90	BD-27	(On) Off	7	50
BD-82	On (Off)	0	70	BD-32	(On) Off	0	65
BD-89	On (Off)	0	70	BD-52	(On) Off	17	65
BD-94	On (Off)	0	80	BD-81	(On) Off	20+	50
BD-95	On (Off)	0	70	BD-88	(On) Off	11	70

NEEDED ABOUT 10 MINUTES TO OPEN THE SOLUTIONS LOCK AND ENTER THRU MAIN GATE BECAUSE PREVIOUS TENANTS LOCKS POSITIONED TO HAVE VIRTUALLY NO SLACK IN CHAIN. NEEDED HAMMER TO TAP SOLUTIONS LOCK PAST OTHER LOCKS. IF SOLUTIONS LOCK HASP WERE LONGER WOULD HELP, OTHER LOCKS SOMETIMES JUST PUT ON AND...

Comments: SYSTEM NOT OPERATING ON ARRIVAL. AFTER SOME SUBJECTIVE BUTTON PUSHING ON CONTROL PANEL, GOT SYSTEM ACTIVATED AND ON LOAD. OPENED 6 MANIFOLD ISOLATION VALVES. WAITED 20 MINUTES FOR SYSTEM PRESSURE TO BUILD AND STABILIZE BEFORE GAGE READING.

TO: MR BRIAN REBAR
FIELD SERVICE MANAGER
SOLUTIONS-IES
919 873-1060
FAX: 919 873-1074

NORTH FUL ARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 11:40 AM
Date: JULY 7, 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	91	PSI
Air Compressor Temperature	174	°F	Air Compressor Run Hours	023307	Hours
Air Compressor Load Hours	022522	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge	(Green)	Red	Air Tank Post-filter Gauge	Green	(Red)

1/2 INTO RED ZONE

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)
AD-12	(On)	Off	20+	80	AD-13	On	(Off)	0	80
AD-16	(On)	Off	20+	70	AD-17	On	(Off)	0	60
AD-31	(On)	Off	7	45	AD-34	On	(Off)	0	80
AD-33	(On)	Off	0	70	AS-30	On	(Off)	0	80
AS-31	(On)	Off	0	60	AS-37	On	(Off)	0	60
AS-36	(On)	Off	3	80	AS-40	On	(Off)	0	90
AS-38	(On)	Off	6	40	AS-42	On	(Off)	0	70
AS-41	(On)	Off	7	35	AD-11	On	(Off)	20+	80
AD-08	(On)	Off	0	75	AD-14	On	(Off)	0	80
AD-09	(On)	Off	8	80	AS-23	On	(Off)	0	0
AD-10	(On)	Off	20+	70	AS-24	On	(Off)	0	80
AS-17	(On)	Off	20+	80	AS-25	On	(Off)	0	55
AS-18	(On)	Off	7	80	BD-101	On	(Off)	0	80
AS-44	(On)	Off	0	40	BD-105	On	(Off)	0	20
AS-45	(On)	Off	0	80	BD-11	On	(Off)	8	110
BD-05	(On)	Off	20+	40	BD-12	On	(Off)	0	75
BD-06	(On)	Off	5	65	BD-13	On	(Off)	2	80
BD-102	(On)	Off	5	35	BD-83	On	(Off)	0	90
BD-106	(On)	Off	0	80	BD-90	On	(Off)	0	60
BD-91	(On)	Off	6	90	BD-96	On	(Off)	0	75
BD-97	(On)	Off	6	80	AD-19	On	(Off)	0	50
AD-15	(On)	Off	2	70	AD-20	On	(Off)	0	80
AD-18	(On)	Off	0	75	AD-30	On	(Off)	0	85
AS-29	(On)	Off	0	80	AD-32	On	(Off)	0	0
AS-32	(On)	Off	0	75	AS-35	On	(Off)	0	80
BD-100	(On)	Off	11	75	AS-39	On	(Off)	0	50
BD-19	(On)	Off	0	90	AS-43	On	(Off)	0	70
BD-20	(On)	Off	20	70	BD-26	On	(Off)	0	85
BD-21	(On)	Off	12	105	BD-27	On	(Off)	0	50
BD-82	(On)	Off	0	70	BD-32	On	(Off)	0	70
BD-89	(On)	Off	7	80	BD-52	On	(Off)	0	80
BD-94	(On)	Off	5	85	BD-81	On	(Off)	0	50
BD-95	(On)	Off	0	80	BD-88	On	(Off)	0	65

Comments:

TO: MR BRIAN REBAR
FIELD SERVICE MANAGER
SOLUTION-IES
919 873-1060
FAX: 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD SHARP Time In: 8:00 am
Date: JULY 15, 2009 Time Out: 9:30 am

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	80	PSI
Air Compressor Temperature	175	°F	Air Compressor Run Hours	023475	Hours
Air Compressor Load Hours	022711	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge MAY	(Green)	Red	Air Tank Post-filter Gauge	Green	(Red) — ½ INTO RED ZONE

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)
AD-12	On	(Off)	0	70	AD-13	(On)	Off	7*	65
AD-16	On	(Off)	0	70	AD-17	(On)	Off	8*	60
AD-31	On	(Off)	0	80	AD-34	(On)	Off	8	80
AD-33	On	(Off)	0	70	AS-30	(On)	Off	6	70
AS-31	On	(Off)	0	55	AS-37	(On)	Off	7*	50
AS-36	On	(Off)	0	70	AS-40	(On)	Off	2**	80
AS-38	On	(Off)	0	55	AS-42	(On)	Off	7*	55
AS-41	On	(Off)	0	35	AD-11	(On)	Off	20**	70
AD-08	On	(Off)	0	70	AD-14	(On)	Off	7*	70
AD-09	On	(Off)	0	70	AS-23	(On)	Off	2**	0
AD-10	On	(Off)	0	65	AS-24	(On)	Off	0**	70
AS-17	On	(Off)	2	70	AS-25	(On)	Off	7*	35
AS-18	On	(Off)	2	70	BD-101	(On)	Off	8*	80
AS-44	On	(Off)	0	55	BD-105	(On)	Off	8*	20
AS-45	On	(Off)	0	70	BD-11	(On)	Off	7*	70
BD-05	On	(Off)	11	40	BD-12	(On)	Off	3**	75
BD-06	On	(Off)	2	65	BD-13	(On)	Off	5*	75
BD-102	On	(Off)	0	35	BD-83	(On)	Off	20***	90
BD-106	On	(Off)	0	75	BD-90	(On)	Off	10	60
BD-91	On	(Off)	0	90	BD-96	(On)	Off	8*	80
BD-97	On	(Off)	0	80	AD-19	(On)	Off	7*	50
AD-15	On	(Off)	0	65	AD-20	(On)	Off	8*	65
AD-18	On	(Off)	0	80	AD-30	(Off)	(On)	0	80
AS-29	On	(Off)	1	70	AD-32	(On)	Off	2**	0
AS-32	On	(Off)	0	60	AS-35	(On)	Off	7*	60
BD-100	On	(Off)	0	75	AS-39	(On)	Off	7*	40
BD-19	On	(Off)	0	65	AS-43	(On)	Off	11	50
BD-20	On	(Off)	20	65	BD-26	(On)	Off	0**	70
BD-21	On	(Off)	0	90	BD-27	(On)	Off	7	50
BD-82	On	(Off)	0	80	BD-32	(On)	Off	0**	70
BD-89	On	(Off)	0	80	BD-52	(On)	Off	7*	70
BD-94	On	(Off)	0	80	BD-81	(On)	Off	0**	50
BD-95	On	(Off)	0	80	BD-88	(On)	Off	8	80

Comments: Adjust flow rates for Bold wells to 5-10 scfm. *= ADJUSTED FLOW

The shaded wells may have flow meters that are stuck; tap meter with hammer to see if the needle moves. ** WILL NOT ADJUST

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: 9:00 am ARRIVED FROM TRAILER
Date: JULY 21, 2009 Time Out:

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	92	PSI
Air Compressor Temperature	179	°F	Air Compressor Run Hours	023641	Hours
Air Compressor Load Hours	022856	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge	(Green) MAY	Red	Air Tank Post-filter Gauge	Green	(Red) 1/3 INTO RED ZONE

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)
AD-12	(On)	Off	8*	85	AD-13	On	(Off)	0	85
AD-16	(On)	Off	8*	65	AD-17	On	(Off)	9	60
AD-31	(On)	Off	9	85	AD-34	On	(Off)	0	85
AD-33	(On)	Off	0**	75	AS-30	On	(Off)	0	90
AS-31	(On)	Off	8*	40	AS-37	On	(Off)	0	60
AS-36	(On)	Off	8*	85	AS-40	On	(Off)	0	100
AS-38	(On)	Off	8+	40	AS-42	On	(Off)	0	70
AS-41	(On)	Off	8*	35	AD-11	On	(Off)	20+	85
AD-08	(On)	Off	0**	90	AD-14	On	(Off)	0	90
AD-09	(On)	Off	8	85	AS-23	On	(Off)	0	0
AD-10	(On)	Off	8*	60	AS-24	On	(Off)	0	85
AS-17	(On)	Off	20+**	80	AS-25	On	(Off)	0	55
AS-18	(On)	Off	8*	85	BD-101	On	(Off)	0	85
AS-44	(On)	Off	8*	40	BD-105	On	(Off)	0	20
AS-45	(On)	Off	8*	90	BD-11	On	(Off)	6	110
BD-05	(On)	Off	15**	40	BD-12	On	(Off)	9	75
BD-06	(On)	Off	8*	70	BD-13	On	(Off)	2	90
BD-102	(On)	Off	25+**	35	BD-83	On	(Off)	20+	95
BD-106	(On)	Off	9	75	BD-90	On	(Off)	0	60
BD-91	(On)	Off	9	95	BD-96	On	(Off)	0	80
BD-97	(On)	Off	9	80	AD-19	On	(Off)	0	50
AD-15	(On)	Off	8*	60	AD-20	On	(Off)	0	90
AD-18	(On)	Off	9*	80	AD-30	(On)	Off	0**	90 *
AS-29	(On)	Off	0**	80	AD-32	On	(Off)	0	0
AS-32	(On)	Off	8*	80	AS-35	On	(Off)	12	80
BD-100	(On)	Off	9	75	AS-39	On	(Off)	0	50
BD-19	(On)	Off	0**	70	AS-43	On	(Off)	0	70
BD-20	(On)	Off	20+**	70	BD-26	On	(Off)	0	90
BD-21	(On)	Off	8*	110	BD-27	On	(Off)	0	50
BD-82	(On)	Off	0**	80	BD-32	On	(Off)	0	70
BD-89	(On)	Off	9	90	BD-52	On	(Off)	0	85
BD-94	(On)	Off	8	85	BD-81	On	(Off)	0	50
BD-95	(On)	Off	0**	90	BD-88	On	(Off)	0	80

Comments Adjust flow rates for Bold wells to 5-10 scfm. *=ADJUSTED **=WILL NOT ADJUST

The shaded wells may have flow meters that are stuck; tap meter with hammer to see if the needle moves.

A COPPER TUBE FITTING ON THE TOP OF THE TAN VALVE BOX BELOW THE KFS FILTERED SEPARATOR IN THE CONDENSATE LINE HAS A SUBSTANTIAL WATER LEAK. SEVERAL VALVES IN THE SYSTEM MANIFOLD LINES ADJACENT TO THE PRESSURE GAGES ARE LEAKING WATER. CONDENSATE PAIL EMPTIED INTO 55 GAL DRUM.

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS - IES
919 873-1060
FAX: 919 873-1074

JUL-21-09 02:42P P.02

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SAAR Time In: ARRIVED FROM TRAILER 9:35am
Date: JULY 29, 2007 Time Out:

Air Compressor

Air Compressor Status	On	Off	Air Compressor Pressure	85	PSI
Air Compressor Temperature	181	°F	Air Compressor Run Hours	023833	Hours
Air Compressor Load Hours	023048	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge	Green	Red	Air Tank Post-filter Gauge	Green	Red

1/2 INTO RED

MAX

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
AD-12	On Off	0	75	AD-13	On Off	8*	75
AD-16	On Off	0	70	AD-17	On Off	8*	60
AD-31	On Off	0	75	AD-34	On Off	8*	75
AD-33	On Off	13	75	AS-30	On Off	20+**	75
AS-31	On Off	0	55	AS-37	On Off	8*	45
AS-36	On Off	0	75	AS-40	On Off	0**	90
AS-38	On Off	0	55	AS-42	On Off	8*	55
AS-41	On Off	0	35	AD-11	On Off	20**	70
AD-08	On Off	0	80	AD-14	On Off	8*	75
AD-09	On Off	0	80	AS-23	On Off	0**	0
AD-10	On Off	0	70	AS-24	On Off	20**	75
AS-17	On Off	0	80	AS-25	On Off	8*	40
AS-18	On Off	0	75	BD-101	On Off	8*	75
AS-44	On Off	0	55	BD-105	On Off	8*	20
AS-45	On Off	0	80	BD-11	On Off	9*	100
BD-05	On Off	20+	40	BD-12	On Off	15**	75
BD-06	On Off	0	65	BD-13	On Off	2**	80
BD-102	On Off	0	35	BD-83	On Off	20+**	85
BD-106	On Off	0	70	BD-90	On Off	8*	60
BD-91	On Off	0	90	BD-96	On Off	8*	80
BD-97	On Off	0	80	AD-19	On Off	8*	50
AD-15	On Off	20+	70	AD-20	On Off	8*	70
AD-18	On Off	0	75	AD-30	On Off	20+**	80
AS-29	On Off	0	80	AD-32	On Off	0**	40
AS-32	On Off	0	70	AS-35	On Off	8*	75
BD-100	On Off	0	80	AS-39	On Off	8*	35
BD-19	On Off	0	70	AS-43	On Off	8*	50
BD-10	On Off	20+	75	BD-26	On Off	0*	80
BD-21	On Off	0	100	BD-27	On Off	8*	50
BD-82	On Off	0	80	BD-32	On Off	0*	70
BD-89	On Off	0	80	BD-52	On Off	8*	75
BD-94	On Off	0	85	BD-81	On Off	20+**	50
BD-95	On Off	0	80	BD-88	On Off	8*	80

Comments: Adjust flow rates for Bold wells to 5-10 scfm. * ADJUSTED ** WILL NOT ADJUST

The shaded wells may have flow meters that are stuck; tap meter with hammer to see if the needle moves.

TIGHTENED FITTING TO CORRECT LEAK REPORTED PREVIOUS WEEK INSPECTION. EMPTIED CONDENSATE JERRI-CAN, 2 55 GAL DRUMS WASTE WATER FILLED.

TO: MR BRIAN REGAR
SENIOR PROJECT MANAGER
SOLUTIONS - IES
919 873-1060
FAX: 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: BnR Time In:
Date: 8/6/09 Time Out:

Starting at manifold 2, this is the order of the wells R to L

Air Compressor

Air Compressor Status	On	Off	Air Compressor Pressure	110/111	PSI
Air Compressor Temperature		°F	Air Compressor Run Hours		Hours
Air Compressor Load Hours	23159	Hours	Condensate Container Level	empty	Percent Full
Air Tank Pre-filter Gauge	Green	Red	Air Tank Post-filter Gauge	Green	Red

Sparge Well Manifolds

	Cycle 1 Wells (1800)	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)		Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	
18	AD-12	On Off	5	76		AD-13	On Off	5	78	18
20	AD-16	On Off	5	60		AD-17	On Off	5	70	20
23	AD-31	On Off	5	102		AD-34	On Off	5	80	25
24	AD-33	On Off	5	110		AS-30	On Off	5	105	8
8	AS-31	On Off	5	70		AS-37	On Off	5	70	10
6	AS-36	On Off	5	80		AS-40	On Off	2	118	9 will not increase
14	AS-38	On Off	5	70		AS-42	On Off	5	70	12
10	AS-41	On Off	5	70		AD-11	On Off	5	80	17
17	AD-08	On Off	0	108	will not adjust	AD-14	On Off	5	105	21
19	AD-09	On Off	5	60		AS-23	On Off	5	103	6
21	AD-10	On Off	5	60		AS-24	On Off	5	105	3
3	AS-17	On Off	5	105		AS-25	On Off	5	80	2
1	AS-18	On Off	5	70		BD-101	On Off	5	82	29
9	AS-44	On Off	5	58		BD-105	On Off	5	87	28
13	AS-45	On Off	5	106		BD-11	On Off	5	100	5
4	BD-05	On Off	Stuck on 12	103		BD-12	On Off	5	104	4
2	BD-06	On Off	5	105		BD-13	On Off	5	110	1
31	BD-102	On Off	5	96		BD-83	On Off	5	70	32
30	BD-106	On Off	5	70		BD-90	On Off	5	90	31
33	BD-91	On Off	5	120		BD-96	On Off	2	86	30 will not increase
32	BD-97	On Off	5	80		AD-19	On Off	5	102	19
16	AD-15	On Off	5	60		AD-20	On Off	5	75	22
22	AD-18	On Off	5	65		AD-30	On Off	5	107	23
5	AS-29	On Off	0	108	will not increase	AD-32	On Off	5	108	24
12	AS-32	On Off	5	100		AS-35	On Off	0-2	105	7 will not increase
29	BD-100	On Off	5	92		AS-39	On Off	5	70	18
7	BD-19	On Off	0	100	will not increase	AS-43	On Off	5	70	15
11	BD-20	On Off	5	100		BD-26	On Off	0	108	11 will not increase
15	BD-21	On Off	5	100		BD-27	On Off	5	84	14
25	BD-82	On Off	0	100	will not increase	BD-32	On Off	0	88	13 will not adjust
26	BD-89	On Off	5	82		BD-52	On Off	5	80	16
27	BD-94	On Off	5	103		BD-81	On Off	5	86	26
28	BD-95	On Off	5	80		BD-88	On Off	5	90	27

want adjusted 13

Comments: Cycle 2 is 110 psi 165°F
Cycle 1 is 111 psi 165° F

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 9:45 am
Date: AUGUST 12, 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	106	PSI
Air Compressor Temperature	173	°F	Air Compressor Run Hours	024080	Hours
Air Compressor Load Hours	023295	Hours	Condensate Container Level	EMPTY / MID LEVEL 0	Percent Full
Air Tank Pre-filter Gauge	MAX (Green)	Red	Air Tank Post-filter Gauge	(Green)	Red

HUH! THAT'S [redacted] DIFFERENT

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
AD-12	On (Off)	0	85	AD-13	(On) Off	5	70
AD-16	On (Off)	0	75	AD-17	(On) Off	5*	65
AD-31	On (Off)	0	100	AD-34	(On) Off	5*	75
AD-33	On (Off)	2	105	AS-30	(On) Off	5*	105
AS-31	On (Off)	2	70	AS-37	(On) Off	5*	70
AS-36	On (Off)	0	85	AS-40	(On) Off	2**	115
AS-38	On (Off)	2	85	AS-42	(On) Off	5	60
AS-41	On (Off)	0	80	AD-11	(On) Off	5*	75
AD-08	On (Off)	0	105	AD-14	(On) Off	5*	70
AD-09	On (Off)	0	80	AS-23	(On) Off	5*	100
AD-10	On (Off)	0	75	AS-24	(On) Off	5*	105
AS-17	On (Off)	0	105	AS-25	(On) Off	5*	70
AS-18	On (Off)	2	75	BD-101	(On) Off	5*	70
AS-44	On (Off)	2	60	BD-105	(On) Off	5*	80
AS-45	On (Off)	2	105	BD-11	(On) Off	5*	95
BD-05	On (Off)	2	105	BD-12	(On) Off	5*	105
BD-06	On (Off)	2	100	BD-13	(On) Off	5	110
BD-102	On (Off)	2	95	BD-83	(On) Off	5*	65
BD-106	On (Off)	2	75	BD-90	(On) Off	5*	90
BD-91	On (Off)	0	115	BD-96	(On) Off	2**	80
BD-97	On (Off)	0	90	AD-19	(On) Off	5	100
AD-15	On (Off)	0	80	AD-20	(On) Off	5*	70
AD-18	On (Off)	0	80	AD-30	(On) Off	5*	105
AS-29	On (Off)	0	100	AD-32	(On) Off	2**	50
AS-32	On (Off)	0	95	AS-35	(On) Off	5*	100
BD-100	On (Off)	0	90	AS-39	(On) Off	5	60
BD-19	On (Off)	0	100	AS-43	(On) Off	5*	65
BD-20	On (Off)	0	100	BD-26	(On) Off	0**	100
BD-21	On (Off)	0	100	BD-27	(On) Off	5*	80
BD-82	On (Off)	0	105	BD-32	(On) Off	0**	90
BD-89	On (Off)	0	95	BD-52	(On) Off	5*	70
BD-94	On (Off)	0	100	BD-81	(On) Off	5*	80
BD-95	On (Off)	2	85	BD-88	(On) Off	5*	90

SIGNIFICANT AIR FLOW ESCAPING FROM VALVE VENT NEXT TO PRESSURE GAGE. ALSO AD-05

MODERATE AIR VENTING FROM VALVE VENT NEXT TO PRESSURE GAGE.

Comments: Adjust flow rates for Bold wells to 5-10 scfm * ADJUSTED ** WILL NOT ADJUST

The shaded wells may have flow meters that are stuck; tap meter with hammer to see if the needle moves.

[redacted]

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX 919 873-1074

PAGE 2 OF 2

Aug-12-09 11:35A P.02

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP
Date: AUGUST 18, 2009

Time In: ARRIVED FROM TRAILER 9:30am
Time Out:

Air Compressor

Air Compressor Status	On	Off	Air Compressor Pressure	105	PSI
Air Compressor Temperature	166	°F	Air Compressor Run Hours	024224	Hours
Air Compressor Load Hours	023439	Hours	Condensate Container Level	0	Percent Full
Air Tank Pre-filter Gauge MAX	Green	Red	Air Tank Post-filter Gauge ½ UP	Green	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
AD-12	On Off	0	85	AD-13	On Off	5	75
AD-16	On Off	0	75	AD-17	On Off	5	65
AD-31	On Off	0	100	AD-34	On Off	6	75
AD-33	On Off	2	105	AS-30	On Off	5	105
AS-31	On Off	2	70	AS-37	On Off	5	70
AS-36	On Off	0	85	AS-40	On Off	2**	115
AS-38	On Off	0	90	AS-42	On Off	5*	65
AS-41	On Off	0	80	AD-11	On Off	5*	75
AD-08	On Off	0	105	AD-14	On Off	5*	70
AD-09	On Off	0	80	AS-23	On Off	5	100
AD-10	On Off	0	75	AS-24	On Off	5	100
AS-17	On Off	0	100	AS-25	On Off	5*	75
AS-18	On Off	2	70	BD-101	On Off	6	75
AS-44	On Off	0	70	BD-105	On Off	5*	80
AS-45	On Off	1	105	BD-11	On Off	5*	95
BD-05	On Off	10	100	BD-12	On Off	5*	100
BD-06	On Off	2	100	BD-13	On Off	2**	110
BD-102	On Off	2	95	BD-83	On Off	5*	70
BD-106	On Off	2	100	BD-90	On Off	5*	90
BD-91	On Off	2	110	BD-96	On Off	2**	80
BD-97	On Off	2	90	AD-19	On Off	5	100
AD-15	On Off	0	75	AD-20	On Off	5*	70
AD-18	On Off	0	80	AD-30	On Off	5*	105
AS-29	On Off	0	100	AD-32	On Off	2**	45
AS-32	On Off	1	95	AS-35	On Off	5	100
BD-100	On Off	2	90	AS-39	On Off	6	65
BD-19	On Off	0	100	AS-43	On Off	5	65
BD-20	On Off	2	95	BD-26	On Off	0**	100
BD-21	On Off	1	100	BD-27	On Off	5	80
BD-82	On Off	0	100	BD-32	On Off	0**	90
BD-89	On Off	2	95	BD-52	On Off	5	75
BD-94	On Off	0	95	BD-81	On Off	0**	80
BD-95	On Off	2	80	BD-88	On Off	5	90

HIGH VOLUME AIR FROM VENT HOLE

HIGH VOLUME AIR FROM VENT HOLE

SMALL VOLUME AIR FROM VENT HOLE

HIGH VOLUME AIR FROM ESCAPING FROM VENT HOLE ON GAGE FITTING

SMALL AIR VOLUME ESCAPING FROM VENT HOLE

Comments: Adjust flow rates for Bold wells to 5-10 scfm. * ADJUSTED ** WILL NOT ADJUST

The shaded wells may have flow meters that are stuck; tap meter with hammer to see if the needle moves.

HIGH VOLUME AIR FROM VENT HOLE BS-13, BD-22

PAGE 2 OF 2

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS - IES
919 873-1060
FAX 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 10:10 am
Date: AUGUST 26, 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	106	PSI
Air Compressor Temperature	174°F	°F	Air Compressor Run Hours	024416	Hours
Air Compressor Load Hours	023631	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge MAX	(Green)	Red	Air Tank Post-filter Gauge ½ up	(Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	On (Off)	2	70	▲ BD-13	(On) Off	3**	110
▲ BD-06	On (Off)	2	100	AS-25	(On) Off	5*	70
▲ AS-17	On (Off)	0	100	▲ AS-24	(On) Off	5*	100
▲ BD-05	On (Off)	10	100	BD-12	(On) Off	5*	100
AS-29	On (Off)	2	100	BD-11	(On) Off	5*	90
AS-36	On (Off)	0	85	▲ AS-23	(On) Off	5	100
BD-19	On (Off)	0	100	▲ AS-35	(On) Off	5*	95
AS-31	On (Off)	3	70	AS-30	(On) Off	5*	100
AS-44	On (Off)	5	60	▲ AS-40	(On) Off	2**	110
AS-41	On (Off)	2	65	AS-37	(On) Off	5*	70
BD-20	On (Off)	2	100	BD-26	(On) Off	2**	100
AS-32	On (Off)	0	95	AS-42	(On) Off	5*	60
AS-45	On (Off)	1	100	BD-32	(On) Off	0**	90
AS-38	On (Off)	0	85	BD-27	(On) Off	5*	80
BD-21	On (Off)	0	100	AS-43	(On) Off	5	65
AD-15	On (Off)	0	70	AS-39	(On) Off	5	60
AD-08	On (Off)	0	105	BD-52	(On) Off	5	70
AD-12	On (Off)	0	80	AD-11	(On) Off	5*	75
AD-09	On (Off)	0	80	AD-13	(On) Off	5*	70
AD-16	On (Off)	0	70	▲ AD-19	(On) Off	5*	100
AD-10	On (Off)	0	75	AD-17	(On) Off	5	65
AD-18	On (Off)	0	80	AD-14	(On) Off	5*	55
AD-31	On (Off)	0	100	AD-20	(On) Off	5	70
AD-33	On (Off)	2	105	▲ AD-30	(On) Off	5*	100
BD-82	On (Off)	0	100	▲ AD-32	(On) Off	1**	50
BD-89	On (Off)	0	95	AD-34	(On) Off	5	70
BD-94	On (Off)	0	95	BD-81	(On) Off	0**	70
BD-95	On (Off)	5	75	BD-88	(On) Off	5*	90
▲ BD-100	On (Off)	2	90	BD-105	(On) Off	5	80
BD-106	On (Off)	1	80	BD-101	(On) Off	5*	70
BD-102	On (Off)	2	95	BD-96	(On) Off	2	75
BD-97	On (Off)	1	90	▲ BD-90	(On) Off	5	90
BD-91	On (Off)	2	110	BD-83	(On) Off	5	70

A2-16 ▲
B5-11 ▲
B5-13 ▲
BD-22 ▲

Comments: * ADJUSTED ** WILL NOT ADJUST
▲ = HP AIR ESCAPING FROM VENT HOLE ON GAGE SHUT-OFF VALVE.
SMALL LEAK AT FITTING - CONDENSATE LINE BETWEEN
AQUAMATE AND PIPE INSTALLED ON PAD.

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX: 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP
Date: AUGUST 31, 2009

Time In: 8:15AM DEPART OFFICE
Time Out: RETURNED OFFICE 11:45AM

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	105	PSI
Air Compressor Temperature	174	°F	Air Compressor Run Hours	024535	Hours
Air Compressor Load Hours	023751	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge MAX	(Green)	Red	Air Tank Post-filter Gauge	1/8 up	(Green) Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	On (Off)	2	70	▲ BD-13	(On) Off	2**	110
▲ BD-06	On (Off)	2	100	AS-25	(On) Off	5*	70
▲ AS-17	On (Off)	0	100	▲ AS-24	(On) Off	5*	100
▲ BD-05	On (Off)	2	100	▲ BD-12	(On) Off	5*	100
AS-29	On (Off)	0	90	BD-11	(On) Off	5*	90
AS-36	On (Off)	0	85	▲ AS-23	(On) Off	5	100
BD-19	On (Off)	0	100	▲ AS-35	(On) Off	5*	95
AS-31	On (Off)	2	70	AS-30	(On) Off	5	100
AS-44	On (Off)	5	60	▲ AS-40	(On) Off	2**	110
AS-41	On (Off)	1	70	AS-37	(On) Off	5*	65
BD-20	On (Off)	2	100	BD-26	(On) Off	0**	100
AS-32	On (Off)	2	90	AS-42	(On) Off	5	60
AS-45	On (Off)	0	100	BD-32	(On) Off	0**	90
AS-38	On (Off)	0	90	BD-27	(On) Off	6*	80
BD-21	On (Off)	2	70	AS-43	(On) Off	5*	65
AD-15	On (Off)	0	100	AS-39	(On) Off	5*	65
AD-08	On (Off)	0	100	BD-52	(On) Off	5	70
AD-12	On (Off)	0	85	AD-11	(On) Off	5	75
AD-09	On (Off)	0	80	AD-13	(On) Off	5*	75
AD-16	On (Off)	0	70	▲ AD-19	(On) Off	5	100
AD-10	On (Off)	0	80	AD-17	(On) Off	5	65
AD-18	On (Off)	2	80	AD-14	(On) Off	5	60
AD-31	On (Off)	0	100	AD-20	(On) Off	5*	75
AD-33	On (Off)	2	105	▲ AD-30	(On) Off	5	100
BD-82	On (Off)	0	100	▲ AD-32	(On) Off	2**	45
BD-89	On (Off)	0	95	AD-34	(On) Off	5*	70
BD-94	On (Off)	0	100	BD-81	(On) Off	0**	70
BD-95	On (Off)	5	80	BD-88	(On) Off	5*	70
▲ BD-100	On (Off)	1	90	BD-105	(On) Off	5	80
BD-106	On (Off)	2	80	BD-101	(On) Off	5*	75
BD-102	On (Off)	2	95	BD-96	(On) Off	2**	80
BD-97	On (Off)	2	85	▲ BD-90	(On) Off	5	90
BD-91	On (Off)	1	110	BD-83	(On) Off	5*	70

▲ AS-16
BS-11
BS-13
BS-18
BD-22

Comments: ▲ AIR ESCAPING FROM VENT HOLE ON GAGE SHUT OFF VALVE
* ADJUSTED ** WOULD NOT ADJUST. EMPTIED CONDENSATE JERRICAN. SHUT DOWN SYSTEM AFTER INSPECTION PER DIRECTION.

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: Sean Jarvel Time In: 1700
Date: 9-15-09 Time Out: 1850

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	111	PSI
Air Compressor Temperature	179	°F	Air Compressor Run Hours	024537	Hours
Air Compressor Load Hours	023752	Hours	Condensate Container Level	Empty - 0	Percent Full
Air Tank Pre-filter Gauge	(Green)	Red	Air Tank Post-filter Gauge	(Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)
AS-18	On	(Off)	2	104	▲ BD-13	(On)	Off	5	114
BD-06	On	(Off)	2	108	AS-25	↑ (On)	Off	5 *	110
AS-17	On	(Off)	0	110	▲ AS-24	↑ (On)	Off	5 *	110
BD-05	On	(Off)	2	110	▲ BD-12	↑ (On)	Off	5 *	110
AS-29	On	(Off)	0	110	BD-11	↓ (On)	Off	~~10~~ * 5	82
AS-36	On	(Off)	0	86	▲ AS-23	(On)	Off	5	108
BD-19	On	(Off)	0	110	▲ AS-35	↑ (On)	Off	5 *	106
AS-31	On	(Off)	0	100	AS-30	↑ (On)	Off	5 *	110
AS-44	On	(Off)	0	74	▲ AS-40	(On)	Off	2 **	120
AS-41	On	(Off)	0	80	AS-37	(On)	Off	5	76
BD-20	On	(Off)	2	96	BD-26	(On)	Off	1 **	110
AS-32	On	(Off)	0	102	AS-42	↓ (On)	Off	5 *	68
AS-45	On	(Off)	0	110	BD-32	(On)	Off	0 **	90
AS-38	On	(Off)	0	84	BD-27	(On)	Off	5	88
BD-21	On	(Off)	2	74	AS-43	(On)	Off	5	70
AD-15	On	(Off)	0	72	AS-39	(On)	Off	5	70
AD-08	On	(Off)	0	110	BD-52	(On)	Off	5	80
AD-12	On	(Off)	0	84	AD-11	(On)	Off	5	80
AD-09	On	(Off)	0	70	AD-13	↑ (On)	Off	5 *	76
AD-16	On	(Off)	0	70	▲ AD-19	↑ (On)	Off	5 *	64
AD-10	On	(Off)	2	68	AD-17	↓ (On)	Off	5 *	68
AD-18	On	(Off)	0	74	AD-14	(On)	Off	5	60
AD-31	On	(Off)	0	108	AD-20	↑ (On)	Off	5 *	74
AD-33	On	(Off)	2	102	▲ AD-30	↑ (On)	Off	5 *	110
BD-82	On	(Off)	0	106	▲ AD-32	(On)	Off	~~12~~ * 5	114
BD-89	On	(Off)	2	90	AD-34	↑ (On)	Off	5 *	100
BD-94	On	(Off)	0	108	BD-81	↑ (On)	Off	0 **	70
BD-95	On	(Off)	3	80	BD-88	↑ (On)	Off	5 *	84
BD-100	On	(Off)	2	74	BD-105	↓ (On)	Off	5 *	80
BD-106	On	(Off)	2	76	BD-101	(On)	Off	5	76
BD-102	On	(Off)	2	100	BD-96	(On)	Off	2 **	76
BD-97	On	(Off)	2	86	▲ BD-90	(On)	Off	5	90
BD-91	On	(Off)	2	120	BD-83	↑ (On)	Off	5 *	70

Comments: * - Adjusted ** - Will not adjust
Pre & Post filters replaced 9-15-09 by Keiden.
Adjusted BD-11 & AD-32. AD-32 not able to adjust last event.
2 Full drums, 1 drum ½ Full, 1 drum ≈ ⅓ full
↑ = Adjusted up, ↓ = Adjusted down
▲ = Air escaping from vent hole on gauge shut off valve
Pulled weeds & sprayed poison

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 10:00 am
Date: SEPT 21, 2009 Time Out: _____

Air Compressor

Air Compressor Status	On	Off	Air Compressor Pressure	107	PSI
Air Compressor Temperature	173	°F	Air Compressor Run Hours	024673	Hours
Air Compressor Load Hours	023888	Hours	Condensate Container Level	EMPTY	Percent Full
Air Tank Pre-filter Gauge	MAX GREEN / Green	Red	Air Tank Post-filter Gauge	MAX GREEN / Green	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	On Off	5*	80	▲ BD-13	On Off	2	110
▲ BD-06	On Off	5*	100	▲ AS-25	On Off	2	105
▲ AS-17	On Off	5*	105	▲ AS-24	On Off	1	105
BD-05	On Off	15**	105	BD-12	On Off	2	110
AS-29	On Off	2**	110	BD-11	On Off	1	95
AS-36	On Off	5*	80	▲ AS-23	On Off	2	100
BD-19	On Off	20**	105	▲ AS-35	On Off	0	100
AS-31	On Off	5*	80	AS-30	On Off	1	105
AS-44	On Off	5*	70	AS-40	On Off	3	120
AS-41	On Off	5*	65	AS-37	On Off	0	80
BD-20	On Off	5*	85	BD-26	On Off	0	105
AS-32	On Off	5*	100	AS-42	On Off	2	75
AS-45	On Off	5*	105	BD-32	On Off	2	90
AS-38	On Off	5	70	BD-27	On Off	5	90
BD-21	On Off	6*	95	AS-43	On Off	0	75
AD-15	On Off	20**	55	AS-39	On Off	0	75
AD-08	On Off	0**	110	BD-52	On Off	2	90
AD-12	On Off	5*	70	AD-11	On Off	0	85
AD-09	On Off	5*	60	AD-13	On Off	0	90
AD-16	On Off	5*	60	AD-19	On Off	0	80
AD-10	On Off	5*	60	AD-17	On Off	2	80
AD-18	On Off	5*	65	AD-14	On Off	0	80
AD-31	On Off	5*	100	AD-20	On Off	0	85
AD-33	On Off	5*	100	▲ AD-30	On Off	0	110
BD-82	On Off	1**	95	▲ AD-32	On Off	2	110
BD-89	On Off	7*	80	AD-34	On Off	0	90
BD-94	On Off	5*	100	BD-81	On Off	2	90
BD-95	On Off	5*	75	BD-88	On Off	0	100
▲ BD-100	On Off	5*	75	BD-105	On Off	0	90
BD-106	On Off	5*	70	BD-101	On Off	0	90
BD-102	On Off	5*	100	BD-96	On Off	1	90
BD-97	On Off	5*	80	▲ BD-90	On Off	1	90
BD-91	On Off	5*	115	BD-83	On Off	0	80

▲ AS16
BS11
BS13
BD 22

Comments: ▲ AIR ESCAPING FROM VENT * ADJUSTED
** WILL NOT ADJUST
GATE LOCK FRONT GATE
RELOCKED EXACTLY AS FOUND
ON ENTER

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: RETURNED OFFICE 12:00pm
Date: OCTOBER 2 2009 Time Out: [redacted] 9:00am

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	113	PSI
Air Compressor Temperature	17[redacted]	°F	Air Compressor Run Hours	024762	Hours
Air Compressor Load Hours	023 9[redacted]	Hours	Condensate Container Level	0	Percent Full
Air Tank Pre-filter Gauge MAX GREEN	(Green)	Red	Air Tank Post-filter Gauge MAX GREEN	(Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	On (Off)	2	110	▲ BD-13	(On) Off	2**	110
▲ BD-06	On (Off)	2	110	▲ AS-25	(On) Off	5*	110
▲ AS-17	On (Off)	1	110	AS-24	(On) Off	5*	110
BD-05	On (Off)	15	110	▲ BD-12	(On) Off	5*	110
AS-29	On (Off)	2	110	BD-11	(On) Off	5*	105
AS-36	On (Off)	0	85	▲ AS-23	(On) Off	6	105
BD-19	On (Off)	20	105	AS-35	(On) Off	5	105
AS-31	On (Off)	2	80	AS-30	(On) Off	5*	110
AS-44	On (Off)	0	80	▲ AS-40	(On) Off	2**	120
AS-41	On (Off)	0	80	AS-37	(On) Off	5*	80
BD-20	On (Off)	2	95	BD-26	(On) Off	2**	110
AS-42	On (Off)	0	100	AS-42	(On) Off	5*	70
AS-45	On (Off)	2	110	BD-32	(On) Off	2**	90
AS-38	On (Off)	2	80	BD-27	(On) Off	5*	85
BD-21	On (Off)	1	110	AS-43	(On) Off	5*	70
AD-15	On (Off)	0	70	AS-39	(On) Off	5*	70
AD-08	On (Off)	0	110	BD-52	(On) Off	5*	80
AD-12	On (Off)	2	85	AD-11	(On) Off	5*	80
AD-09	On (Off)	0	80	AD-13	(On) Off	5*	80
AD-16	On (Off)	0	90	AD-19	(On) Off	5*	110
AD-10	On (Off)	0	70	AD-17	(On) Off	5	70
AD-18	On (Off)	0	75	AD-14	(On) Off	5*	65
AD-31	On (Off)	1	105	AD-20	(On) Off	6	80
AD-33	On (Off)	7	105	AD-30	(On) Off	5*	110
BD-82	On (Off)	2	110	▲ AD-32	(On) Off	5*	115
BD-89	On (Off)	2	90	▲ AD-34	(On) Off	5*	105
BD-94	On (Off)	0	105	BD-81	(On) Off	0**	80
BD-95	On (Off)	2	105	BD-88	(On) Off	6	90
▲ BD-100	On (Off)	2	70	BD-105	(On) Off	5*	85
BD-106	On (Off)	0	80	BD-101	(On) Off	5	80
BD-102	On (Off)	6	100	BD-96	(On) Off	2**	80
BD-97	On (Off)	2	90	▲ BD-90	(On) Off	5*	90
BD-91	On (Off)	1	120	BD-83	(On) Off	5	70

▲ BS-11
BS-13
BD-22

Comments: SYSTEM NOT OPERATING ON ARRIVAL, RESET MAIN CIRCUIT BREAKER IN BLDG POWER PANEL. STARTED SYSTEM AND PLACED ON LOAD. WAITED 15 MINUTES FOR PRESSURE TO BUILD AND STABILIZE. 2 OF 4 55 GAL DRUMS FILLED WITH CONDENSATE WATER. ▲ AIR ESCAPING FROM VENT * ADJUSTED ** WILL NOT ADJUST

LEFT OLD LOCK IN HOUSE.
RELOCKED GATE LOCK
EXACTLY AS FOUND.

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX: 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

839
262
77 HRS
RUN IN
ONE WEEK

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 11:05am
Date: OCTOBER 9 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	115	PSI
Air Compressor Temperature	179°F	°F	Air Compressor Run Hours	024839	Hours
Air Compressor Load Hours	024054	Hours	Condensate Container Level	EMPTY	Percent Full
Air Tank Pre-filter Gauge MAX	(Green)	Red	Air Tank Post-filter Gauge MAX	(Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	(On) Off	5*	115	▲ BD-13	On (Off)	2	115
▲ BD-06	(On) Off	5*	100	▲ AS-25	On (Off)	2	110
AS-17	(On) Off	5*	115	▲ AS-24	On (Off)	2	115
▲ BD-05	(On) Off	10**	115	▲ BD-12	On (Off)	2	115
AS-29	(On) Off	2**	110	▲ BD-11	On (Off)	0	105
AS 36	(On) Off	5*	80	▲ AS-23	On (Off)	5	110
BD-19	(On) Off	20+ **	110	▲ AS-35	On (Off)	2	110
AS-31	(On) Off	5*	90	AS-30	On (Off)	2	110
AS-44	(On) Off	5*	75	▲ AS-40	On (Off)	2	120
AS-41	(On) Off	5*	70	AS-37	On (Off)	1	80
BD-20	(On) Off	2**	90	BD-26	On (Off)	1	110
AS-32	(On) Off	5*	100	AS-42	On (Off)	1	75
AS-45	(On) Off	5*	110	BD-32	On (Off)	0	90
AS-38	(On) Off	5*	70	BD-27	On (Off)	1	90
BD-21	(On) Off	5*	105	AS-43	On (Off)	0	70
AD-15	(On) Off	20+ **	65	AS-39	On (Off)	0	70
AD-08	(On) Off	0**	115	BD-52	On (Off)	1	80
AD-12	(On) Off	5*	75	AD-11	On (Off)	0	85
AD-09	(On) Off	5*	65	AD-13	On (Off)	0	80
AD-16	(On) Off	5*	65	▲ AD-19	On (Off)	0	110
AD-10	(On) Off	5*	60	AD-17	On (Off)	2	80
AD-18	(On) Off	5*	65	▲ AD-14	On Off	0	110
AD-31	(On) Off	5*	105	AD-20	On (Off)	0	80
AD-33	(On) Off	5*	105	AD-30	On (Off)	0	110
BD-82	(On) Off	2**	100	▲ AD-32	On (Off)	2	115
BD-89	(On) Off	5*	85	▲ AD-34	On (Off)	1	110
BD-94	(On) Off	5*	105	BD-81	On (Off)	1	80
BD-95	(On) Off	2**	65	BD-88	On (Off)	0	95
▲ BD-100	(On) Off	5*	60	BD-105	On (Off)	0	90
BD-106	(On) Off	5*	75	BD-101	On (Off)	0	90
BD-102	(On) Off	5*	100	BD-96	On (Off)	2	80
BD-97	(On) Off	5*	80	▲ BD-90	On (Off)	0	90
BD-91	(On) Off	0**	120	▲ BD-83	On Off	1	120

* SYSTEM ONLY RAN 3 DAYS DURING PAST WEEK WHICH MEANS SYSTEM SHUT DOWN EARLY MONDAY AM. WONDER WHAT WAS GOING ON AT CECIL? ~5:00PM 3:00PM TO SYSTEM STOP

▲ AS16
BS13
AS-39

Comments: SYSTEM NOT OPERATING ON ARRIVAL; AGAIN. 2nd WEEK IN A ROW. AREA HAS NOT HAD ELECTRICAL STORMS DURING PRECEEDING WEEK. RESET CIRCUIT BREAKER IN BLDG. ENERGIZED SYSTEM AND PLACED ON LOAD. WAITED 15 MINUTES FOR PRESSURE STABILIZATION BEFORE GAGE RECORDINGS. ENTRYGATE RELOCKED EXACTLY AS FOUND.

▲ AIR ESCAPING FROM VALVE VENT.

* ADJUSTED
** WOULD NOT ADJUST

Solutions-IES
(919) 873-1060

OandMform.xls

TO: MR BRIAN REBAK
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 10:10 am
Date: OCTOBER 13, 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	112	PSI
Air Compressor Temperature	170	°F	Air Compressor Run Hours	024734	Hours
Air Compressor Load Hours	024149	Hours	Condensate Container Level	EMPTY	Percent Full
Air Tank Pre-filter Gauge	MAX (Green)	Red	Air Tank Post-filter Gauge	MAX (Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	(On) Off	5*	110	▲ BD-13	On (Off)	2	110
▲ BD-06	(On) Off	5*	110	▲ AS-25	On (Off)	2	110
▲ AS-17	(On) Off	6	110	▲ AS-24	On (Off)	1	110
▲ BD-05	(On) Off	11**	110	▲ BD-12	On (Off)	0	110
AS-29	(On) Off	2**	110	BD-11	On (Off)	0	105
AS-36	(On) Off	5*	70	▲ AS-23	On (Off)	6	105
▲ BD-19	(On) Off	20+**	110	▲ AS-35	On (Off)	0	105
AS-31	(On) Off	5*	80	▲ AS-30	On (Off)	0	110
AS-44	(On) Off	5	70	▲ AS-40	On (Off)	2	120
AS 41	(On) Off	5*	70	AS-37	On (Off)	1	80
BD-20	(On) Off	5	70	BD-26	On (Off)	0	105
AS-32	(On) Off	5*	100	AS-42	On (Off)	1	80
AS-45	(On) Off	5*	105	BD-32	On (Off)	0	90
AS-38	(On) Off	5*	75	BD-27	On (Off)	1	90
BD-21	(On) Off	5*	100	AS-43	On (Off)	0	75
AD-15	(On) Off	20+**	60	AS-39	On (Off)	0	70
AD-08	(On) Off	0**	110	BD-52	On (Off)	2	80
AD-12	(On) Off	5*	80	AD-11	On (Off)	0	85
AD-09	(On) Off	5*	70	AD-13	On (Off)	0	90
AD-16	(On) Off	5*	65	▲ AD-19	On (Off)	0	105
AD-10	(On) Off	5*	60	AD-17	On (Off)	1	80
AD-18	(On) Off	5*	70	▲ AD-14	On (Off)	0	110
AD-31	(On) Off	5*	100	AD-20	On (Off)	0	85
AD-33	(On) Off	5	105	▲ AD-30	On Off	0	110
BD-82	(On) Off	2**	110	▲ AD-32	On (Off)	2	120
BD-89	(On) Off	5*	85	AD-34	On (Off)	0	105
BD-94	(On) Off	5*	105	BD-81	On (Off)	2	90
BD-95	(On) Off	5	80	BD-88	On (Off)	0	100
▲ BD-100	(On) Off	5*	70	BD-105	On (Off)	0	90
BD-106	(On) Off	5	80	BD-101	On (Off)	0	30
BD-102	(On) Off	5*	100	BD-96	On (Off)	0	90
BD-97	(On) Off	5*	80	▲ BD-90	On (Off)	0	95
BD-91	(On) Off	0**	120	BD-83	On (Off)	0	80

SYSTEM IS LOSING A LOT OF AIR THIS BANK

▲ AS16
BS11
BS-13
BD 22

Comments: ▲ AIR ESCAPING FROM VALVE VENT * ADJUSTED
** WILL NOT ADJUST SYSTEM OPERATING ON ARRIVAL
RELOCKED MAIN GATE EXACTLY AS FOUND.

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX 919 873-1074

024986
- 024934
52

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

SYSTEM ONLY RAN 52 HOURS AFTER OCT 13 INSPECTION, MEANING SYSTEM SHUTDOWN ≈ 12:00PM OCT 15.

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 9:10am
Date: OCTOBER 21, 2009 Time Out:

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	109	PSI
Air Compressor Temperature	175	°F	Air Compressor Run Hours	024986	Hours
Air Compressor Load Hours	024201	Hours	Condensate Container Level	CHRTY	Percent Full
Air Tank Pre-filter Gauge MAY	(Green)	Red	Air Tank Post-filter Gauge ½ UP	(Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	On	(Off)	2	110	▲ BD-13	(On)	Off	0**	110
▲ BD-06	On	(Off)	0	105	▲ AS-25	(On)	Off	5	110
▲ AS-17	On	(Off)	0	120	▲ AS-24	(On)	Off	5*	110
▲ BD-05	On	(Off)	10	110	BD-12	(On)	Off	5*	110
AS-29	On	(Off)	2	120	▲ BD-11	(On)	Off	5*	110
▲ AS-36	On	(Off)	0	100	▲ AS-23	(On)	Off	5	120
BD-19	On	(Off)	20+	110	▲ AS-35	(On)	Off	5	120
AS-31	On	(Off)	0	80	▲ AS-30	(On)	Off	5*	115
AS-44	On	(Off)	0	75	▲ AS-40	(On)	Off	5	120
AS-41	On	(Off)	0	80	AS-37	(On)	Off	5*	80
▲ BD-20	On	(Off)	2	105	▲ BD-26	(On)	Off	2**	110
AS-32	On	(Off)	2	105	AS-42	(On)	Off	5*	70
AS-45	On	(Off)	0	110	BD-32	(On)	Off	2**	90
AS-38	On	(Off)	2	70	BD-27	(On)	Off	5*	90
BD-21	On	(Off)	0	110	AS-43	(On)	Off	5*	75
AD-15	On	(Off)	0	70	AS-39	(On)	Off	5*	75
AD-08	On	(Off)	0	110	BD-52	(On)	Off	5*	80
AD-12	On	(Off)	0	80	AD-11	(On)	Off	5*	80
AD-09	On	(Off)	0	70	AD-13	(On)	Off	5*	80
AD-16	On	(Off)	0	70	▲ AD-19	(On)	Off	5*	110
AD-10	On	(Off)	0	70	AD-17	(On)	Off	5*	70
AD-18	On	(Off)	0	80	AD-14	(On)	Off	5*	70
AD-31	On	(Off)	0	110	AD-20	(On)	Off	5*	80
▲ AD-33	On	(Off)	2	100	▲ AD-30	(On)	Off	5	110
BD-82	On	(Off)	6	80	▲ AD-32	(On)	Off	5*	110
BD-89	On	(Off)	1	90	▲ AD-34	(On)	Off	5*	95
BD-94	On	(Off)	0	100	BD-81	(On)	Off	20+ **	80
BD-95	On	(Off)	2	70	BD-88	(On)	Off	6	90
▲ BD-100	On	(Off)	0	70	BD-105	(On)	Off	5	85
BD-106	On	(Off)	0	80	BD-101	(On)	Off	5*	85
BD-102	On	(Off)	6	100	BD-96	(On)	Off	2**	80
BD-97	On	(Off)	0	90	BD-90	(On)	Off	5*	110
BD-91	On	(Off)	0	120	BD-83	(On)	Off	2**	75

Comments: SYSTEM NOT OPERATING ON ARRIVAL. THIS IS THE 3RD TIME IN 4 WEEKS. AREA HAS NOT HAD ELECTRICAL STORMS, RECOMMEND SOMEONE LOOK INTO SITUATION TO VERIFY SYSTEM SHUTDOWN IS NOT INTENTIONAL. RESET CIRCUIT BREAKER, ENERGIZED SYSTEM AND PLACED ON LOAD. WAITED 20 MINUTES FOR SYSTEM PRESSURE TO STABILIZE BEFORE GAGE READINGS. WATER IS ACTUALLY CASCADING FROM

• VERY LARGE QUANTITY OF WATER BLOWING FROM VENT HOLES OF SEVERAL VALVES AFTER SYSTEM START UP.

• RELOCKED MAIN GATE EXACTLY AS FOUND

▲ BD22
BD13
AS16

▲ AIR ESCAPING FROM VENT HOLES
* ADJUSTED
** WILL NOT ADJUST

• SYSTEM SHUTDOWNS SEEMED TO START ABOUT THE TIME OF GATE LOCK ISSUE.

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX: 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 9130RA
Date: OCTOBER 27, 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	113	PSI
Air Compressor Temperature	179	°F	Air Compressor Run Hours	025116	Hours
Air Compressor Load Hours	024331	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge MAX	(Green)	Red	Air Tank Post-filter Gauge	1/2 UP (Green)	Red

025116
024986
130

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	On	(Off)	2	110	BD-13	(On)	Off	5	110
▲ BD-06	On	(Off)	1	110	▲ AS-25	(On)	Off	5*	110
▲ AS-17	On	(Off)	0	110	▲ AS-24	(On)	Off	5*	110
BD-05	On	(Off)	11	110	▲ BD-12	(On)	Off	5*	110
AS-29	On	(Off)	0	105	▲ BD-11	(On)	Off	5*	110
▲ AS-36	On	(Off)	0	100	▲ AS-23	(On)	Off	5	105
BD-19	On	(Off)	20	105	▲ AS-35	(On)	Off	20**	105
AS-31	On	(Off)	2	90	▲ AS-30	(On)	Off	5	110
▲ AS-44	On	(Off)	0	90	AS-40	(On)	Off	2**	120
AS-41	On	(Off)	1	90	AS-37	(On)	Off	5*	100
BD-20	On	(Off)	2	110	BD-26	(On)	Off	1**	110
▲ AS-32	On	(Off)	2	100	AS-42	(On)	Off	5*	70
AS-45	On	(Off)	1	110	BD-32	(On)	Off	0*	90
AS-38	On	(Off)	0	80	BD-27	(On)	Off	6	90
BD-21	On	(Off)	0	110	AS-43	(On)	Off	5*	70
AD-15	On	(Off)	0	80	AS-39	(On)	Off	5*	70
AD-08	On	(Off)	0	110	BD-52	(On)	Off	5*	80
AD-12	On	(Off)	0	80	AD-11	(On)	Off	5	80
AD-09	On	(Off)	0	80	AD-13	(On)	Off	5	80
AD-16	On	(Off)	0	70	▲ AD-19	(On)	Off	5*	105
AD-10	On	(Off)	0	70	AD-17	(On)	Off	5	70
AD-18	On	(Off)	0	80	AD-14	(On)	Off	5	60
AD-31	On	(Off)	0	110	AD-20	(On)	Off	5*	80
AD-33	On	(Off)	0	100	AD-30	(On)	Off	6	110
▲ BD-82	On	(Off)	0	110	▲ AD-32	(On)	Off	5*	90
BD-89	On	(Off)	1	90	▲ AD-34	(On)	Off	5*	105
BD-94	On	(Off)	0	110	BD-81	(On)	Off	20**	70
BD-95	On	(Off)	2	100	BD-88	(On)	Off	5	90
▲ BD-100	On	(Off)	2	70	BD-105	(On)	Off	6	80
BD-106	On	(Off)	0	80	BD-101	(On)	Off	5*	80
BD-102	On	(Off)	6	100	▲ BD-96	(On)	Off	2**	100
BD-97	On	(Off)	1	105	▲ BD-90	(On)	Off	5*	100
BD-91	On	(Off)	0	120	▲ BD-83	(On)	Off	20**	120

SYSTEM RAN 130 HOURS AFTER OCT21 INSPECTION

▲ AS16
BS11
BS13
BD69
BD85

THIS SYSTEM HAS THE MOST INCONSISTENT GAGE READINGS I HAVE EVER EXPERIENCED.
* ADJUSTED
** WILL NOT ADJUST
▲ AIR ESCAPING FROM VENT HOLE

EMPTIED CONDENSATE VERRICAN, 2 OF 4 DRUMS FILLED WITH WASTE WATER.

TURNED OFF NEARLY EVERY WEEK. AREA HAS NOT HAD ELECTRICAL STORMS.
RELOCKED MAIN GATE IN MUCH BETTER ARRANGEMENT THAN FOUND.

Comments: SYSTEM NOT OPERATING ON ARRIVAL. AGAIN. 4TH TIME IN 5 WEEKS. MAIN GATE LOCKS SUCH A CLUTTER TOOK OVER 5 MINUTES TO WEDGE AND PRY OURS CLEAR. ENERGIZED SYSTEM AND PLACED ON LOAD. WAITED 15 MINUTES FOR SYSTEM PRESSURE TO BUILD AND STABILIZE BEFORE GAGE RECORDING. LARGE QUANTITY OF WATER CASCADING FROM NUMEROUS MANIFOLD VENT HOLES. PROGRAMMER CONTACTED INVESTIGATE WHY SYSTEM IS

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX: 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: B. Rebar Time In: _____
Date: 11/3/09 Time Out: _____

Air Compressor

Air Compressor Status	On	Off	Air Compressor Pressure	111	PSI
Air Compressor Temperature	165	°F	Air Compressor Run Hours	25120	Hours
Air Compressor Load Hours	24335	Hours	Condensate Container Level	0	Percent Full
Air Tank Pre-filter Gauge	Green	Red	Air Tank Post-filter Gauge	Green	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	
AS-18	On	Off			BD-13	On	Off	5	110	
BD-06	On	Off			AS-25	On	Off	7 5	110	
AS-17	On	Off			AS-24	On	Off	0 5	108	
BD-05	On	Off			BD-12	On	Off	2 5	110	
AS-29	On	Off			BD-11	On	Off	5	104	
AS-36	On	Off	99	70/100	AS-23	On	Off	9 6	108	
BD-19	On	Off			AS-35	On	Off	0 5	105	
AS-31	On	Off			AS-30	On	Off	6 9	110	
AS-44	On	Off			AS-40	On	Off	0 0	120	- no air
AS-41	On	Off	49	70 100	AS-37	On	Off	9	104	
BD-20	On	Off			BD-26	On	Off	0	110	- no air
AS-32	On	Off			AS-42	On	Off	13 9	62 100	
AS-45	On	Off			BD-32	On	Off	0	90	- no air
AS-38	On	Off			BD-27	On	Off	8	80	
BD-21	On	Off			AS-43	On	Off	7 5	70 100	
AD-15	On	Off			AS-39 2#16	On	Off	5	70 90	
AD-08	On	Off			BD-52	On	Off	6 5	75 100	
AD-12	On	Off			AD-11	On	Off	10 5	75 100	
AD-09	On	Off			AD-13	On	Off	10 5	75 100	
AD-16	On	Off			AD-19	On	Off	8 5	108	
AD-10	On	Off			AD-17	On	Off	7 5	70 10[illegible]	
AD-18	On	Off			AD-14	On	Off	7 5	64 100	
AD-31	On	Off			AD-20	On	Off	7 5	75 100	
AD-33	On	Off			AD-30	On	Off	5	110	
BD-82	On	Off			AD-32	On	Off	8 5	112	
BD-89	On	Off			AD-34	On	Off	8 5	100	
BD-94	On	Off			BD-81	On	Off	3	90	- no air
BD-95	On	Off			BD-88	On	Off	7 5	92	
BD-100	On	Off			BD-105	On	Off	8 5	80 100	
BD-106	On	Off			BD-101	On	Off	6 5	78 100	
BD-102	On	Off			BD-96	On	Off	0 0	80 99	- no air
BD-97	On	Off			BD-90	On	Off	7 5	95	
BD-91	On	Off			BD-83	On	Off	7 5	80 100	

Comments: 2 full 2½ full drums
Repaired broken sparge line

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHAW Time In: ARRIVED FROM TRAILER 9:25AM
Date: NOVEMBER 9, 2009 Time Out:

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	110	PSI
Air Compressor Temperature	175	°F	Air Compressor Run Hours	025255	Hours
Air Compressor Load Hours	024470	Hours	Condensate Container Level	EMPTY	Percent Full
Air Tank Pre-filter Gauge	MAX (Green)	Red	Air Tank Post-filter Gauge	MAX (Green)	Red

Sparge Well Manifolds

Cycle 1 Wells		Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
▲AS-18		On (Off)	2	110	▲BD-13	(On) Off	2**	110
▲BD-06		On (Off)	2	110	▲AS-25	(On) Off	5*	110
▲AS-17		On (Off)	0	110	▲AS-24	(On) Off	5*	105
▲BD-05		On (Off)	12	110	▲BD-12	(On) Off	5*	110
AS-29		On (Off)	0	100	BD-11	(On) Off	5*	105
AS-36	*	(On) Off	5*	105	▲AS-23	(On) Off	5*	110
BD-19		On (Off)	20+	105	▲AS-35	(On) Off	5*	100
AS-31		On (Off)	0	90	AS-30	(On) Off	5*	95
AS-44		On (Off)	0	75	▲AS-40	(On) Off	2**	120
AS-41	*	(On) Off	5*	80	AS-37	(On) Off	5*	100
BD-20		On (Off)	2	100	BD-26	(On) Off	0**	110
AS-32		On (Off)	2	100	AS-42	(On) Off	5*	100
AS-45		On (Off)	0	110	BD-32	(On) Off	0**	90
AS-38		On (Off)	0	85	BD-27	(On) Off	5	80
BD-21		On (Off)	1	110	AS-43	(On) Off	5*	100
AD-15		On (Off)	0	80	AS-39	(On) Off	5*	90
AD-08		On (Off)	0	110	BD-52	(On) Off	5*	100
AD-12		On (Off)	0	85	AD-11	(On) Off	5*	105
AD-09		On (Off)	0	80	AD-13	(On) Off	5*	100
AD-16		On (Off)	0	70	AD-19	(On) Off	5*	65
AD-10		On (Off)	0	70	AD-17	(On) Off	5*	100
AD-18		On (Off)	0	80	AD-14	(On) Off	5	105
AD-31		On (Off)	0	105	AD-20	(On) Off	5*	100
AD-33		On (Off)	1	100	AD-30	(On) Off	5*	110
BD-82		On (Off)	0	100	▲AD-32	(On) Off	5*	105
BD-89		On (Off)	1	90	AD-34	(On) Off	5*	75
BD-94		On (Off)	0	105	BD-81	(On) Off	2**	90
BD-95		On (Off)	2	80	BD-88	(On) Off	5*	90
▲BD-100		On (Off)	2	70	BD-105	(On) Off	5*	110
BD-106		On (Off)	0	80	BD-101	(On) Off	5*	105
BD-102		On (Off)	2	95	BD-96	(On) Off	0**	100
BD-97		On (Off)	2	90	BD-90	(On) Off	5*	95
BD-91		On (Off)	0	120	BD-83	(On) Off	5*	100

▲ A516
B311
B513

Comments: * ADJUSTED ** WILL NOT ADJUST ▲ AIR ESCAPING FROM VALVE VENT
RELOCKED MAIN GATE EXACTLY AS FOUND

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
SOLUTIONS-IES
919 873-1060
FAX 919 873-1074

NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD A. SHARP Time In: 10:20 am ARRIVED FROM TRAILER
Date: NOVEMBER 16 2009 Time Out: _____

Air Compressor

Air Compressor Status	On	Off	Air Compressor Pressure	108	PSI
Air Compressor Temperature	176	°F	Air Compressor Run Hours	025424	Hours
Air Compressor Load Hours	024639	Hours	Condensate Container Level	EMPTY	Percent Full
Air Tank Pre-filter Gauge MAY	Green	Red	Air Tank Post-filter Gauge 3/4 up	Green	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light	Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	On Off	5*	100	▲ BD-13	On Off	2	110
BD-06	On Off	2**	40	▲ AS-25	On Off	2	105
▲ AS-17	On Off	5*	105	▲ AS-24	On Off	2	100
▲ BD-05	On Off	15**	105	▲ BD-12	On Off	0	105
AS-29	On Off	2**	100	BD-11	On Off	1	85
AS-36	On Off	5*	105	AS-23	On Off	6	110
BD-19	On Off	20**	90	▲ AS-35	On Off	1	100
AS-31	On Off	5*	80	AS-30	On Off	5*	105
AS-44	On Off	5*	60	▲ AS-40	On Off	2**	120
AS-41	On Off	5*	80	AS-37	On Off	5*	90
BD-20	On Off	20**	80	BD-26	On Off	0	105
AS-32	On Off	5*	100	AS-42	On Off	5	100
AS-45	On Off	5*	105	BD-32	On Off	0	90
AS-38	On Off	5	65	BD-27	On Off	0	90
BD-21	On Off	5	100	AS-43	On Off	1	100
AD-15	On Off	20**	50	AS-39	On Off	0	85
AD-08	On Off	0**	110	BD-52	On Off	1	105
AD-12	On Off	5*	75	AD-11	On Off	0	105
AD-09	On Off	5*	60	AD-13	On Off	0	100
AD-16	On Off	5	50	AD-19	On Off	0	80
AD-10	On Off	5	60	AD-17	On Off	3	110
AD-18	On Off	5*	60	AD-14	On Off	0	105
AD-31	On Off	5	100	AD-20	On Off	1	100
AD-33	On Off	7**	100	AD-30	On Off	11	110
BD-82	On Off	0**	90	▲ AD-32	On Off	2	100
BD-89	On Off	5	80	AD-34	On Off	0	80
BD-94	On Off	5	100	BD-81	On Off	0	90
BD-95	On Off	2**	80	BD-88	On Off	2	90
▲ BD-100	On Off	5	70	BD-105	On Off	0	105
BD-106	On Off	5*	70	BD-101	On Off	0	105
BD-102	On Off	5	75	BD-96	On Off	1	100
BD-97	On Off	5*	75	BD-90	On Off	0	95
BD-91	On Off	0**	120	BD-83	On Off	1	120

NOT KIDDING - LAMP IS ON AND LAMP HOLDER WARM

▲ AS16
BJH
BS13
BD22

Comments: FOUND IT! WELLHEAD CEF-076-1135 NOT MARKED AS OTHERS - HAS "1135" PAINTED IN YELLOW. OPENED VALVE, NO AIR RELEASE AT ALL. IS THIS WELL SERVICED? RECLOSED VALVE. SYSTEM OPERATING ON ARRIVAL. RELOCKED MAIN GATE EXACTLY AS FOUND.

EXPECT TO VISIT SITES FOR WEEKLY CHECKS EARLY MONDAY NOV 23 UNLESS ITS RAINING. WILL SHUT DOWN SYSTEMS AND CLOSE-OFF NFF MANIFOLD VALVES.

▲ AIR ESCAPING FROM MANIFOLD PORT
* ADJUSTED
** WOULD NOT ADJUST

Solutions-IES
(919) 873-1060

TO: MR BRIAN REBAR
SENIOR PROJECT MANAGER
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NORTH FUEL FARM AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD
JACKSONVILLE, FL
8030.08A2.NAVF

Technician: MILLARD H. SHARP Time In: ARRIVED FROM TRAILER 9:40am
Date: NOVEMBER 23 2009 Time Out: _____

Air Compressor

Air Compressor Status	(On)	Off	Air Compressor Pressure	111	PSI
Air Compressor Temperature	170	°F	Air Compressor Run Hours	025591	Hours
Air Compressor Load Hours	024806	Hours	Condensate Container Level	100	Percent Full
Air Tank Pre-filter Gauge MAX	(Green)	Red	Air Tank Post-filter Gauge 3/4 UP	(Green)	Red

Sparge Well Manifolds

Cycle 1 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)	Cycle 2 Wells	Red Indicator Light		Flow Rate (SCFM)	Pressure (PSI)
▲ AS-18	On	(Off)	2	105	▲ BD-13	(On)	Off	5	115
BD-06	On	(Off)	1	50	▲ AS-25	(On)	Off	5	115
▲ AS-17	On	(Off)	0	110	▲ AS-24	(On)	Off	5*	110
BD-05	On	(Off)	15	110	▲ BD-12	(On)	Off	5	110
AS-29	On	(Off)	1	105	BD-11	(On)	Off	5*	95
AS-36	(On)	Off	5*	105	▲ AS-23	(On)	Off	10**	100
BD-19	On	(Off)	20	105	▲ AS-35	(On)	Off	5*	100
AS-31	On	(Off)	1	80	AS-30	(On)	Off	5*	110
AS-44	On	(Off)	0	75	▲ AS-40	(On)	Off	2**	120
AS-41	(On)	Off	5*	100	AS-37	(On)	Off	5*	100
BD-20	On	(Off)	20	100	BD-26	(On)	Off	0**	110
AS-32	On	(Off)	2	105	AS-42	(On)	Off	5	100
AS-45	On	(Off)	1	110	BD-32	(On)	Off	1**	90
AS-38	On	(Off)	5	65	BD-27	(On)	Off	5*	80
BD-21	On	(Off)	0	110	AS-43	(On)	Off	5	105
AD-15	On	(Off)	0	75	AS-39	(On)	Off	5*	90
AD-08	On	(Off)	0	110	BD-52	(On)	Off	5	100
AD-12	On	(Off)	0	85	AD-11	(On)	Off	5	100
AD-09	On	(Off)	0	80	AD-13	(On)	Off	5*	100
AD-16	On	(Off)	0	70	AD-19	(On)	Off	5*	60
AD-10	On	(Off)	0	75	AD-17	(On)	Off	5*	95
AD-18	On	(Off)	0	80	AD-14	(On)	Off	5*	100
AD-31	On	(Off)	0	105	AD-20	(On)	Off	5*	100
AD-33	On	(Off)	5	100	AD-30	(On)	Off	5*	115
BD-82	On	(Off)	0	100	▲ AD-32	(On)	Off	5*	105
BD-89	On	(Off)	1	85	AD-34	(On)	Off	5*	75
BD-94	On	(Off)	0	105	BD-81	(On)	Off	2**	90
BD-95	On	(Off)	2	80	BD-88	(On)	Off	5*	90
▲ BD-100	On	(Off)	0	60	BD-105	(On)	Off	5*	100
BD-106	On	(Off)	2	80	BD-101	(On)	Off	5*	100
BD-102	On	(Off)	2	100	BD-96	(On)	Off	1**	100
BD-97	On	(Off)	2	85	BD-90	(On)	Off	5*	90
BD-91	On	(Off)	0	120	BD-83	(On)	Off	5*	100

NOT KIDDING. LAMPS WERE DIM AND LAMP HOLDERS WARM TO TOUCH

▲ AS16
BS11
BS13
BD22

RELOCKED ENTRY GATE EXACTLY AS FOUND.

Comments SYSTEM OPERATING ON ARRIVAL. OPENED WELL HEAD VALVE CEF-076-1135 AND RECLOSED - NO AIR PRESSURE PRESENT. EMPTIED CONDENSATE PAIL. SHUT DOWN SYSTEM PER DIRECTION AND CLOSED MANIFOLD ISOLATION VALVES. TURNED OFF MAIN CIRCUIT BREAKER. OBSERVED CONDENSATE LEAK FLEXIBLE HOSE FITTINGS BOTTOM NEXT TO AQUAMAT G.

▲ AIR ESCAPING FROM MANIFOLD VENT
* ADJUSTED
** WILL NOT ADJUST

Solutions-IES
(919) 873-1060

OandMform.xls

TO: MR BRIAN ROBAR
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