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NAS CECIL FIELD, FL
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2008 ANNUAL LONG TERM MONITORING AND OPERATION AND MAINTENANCE STATUS REPORT FOR BUILDING 46 NAS CECIL FIELD FL

4/15/2009

SOLUTIONS-IES INC

2008 ANNUAL
LONG-TERM MONITORING AND
OPERATION & MAINTENANCE
STATUS REPORT

BUILDING 46
FORMER NAS CECIL FIELD
JACKSONVILLE, FL

CONTRACT NO. N62467-05-G-0193
CONTRACT TASK ORDER NO. 0001

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APRIL 15, 2009

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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.

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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) services at Building 46 (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 0001. Under this contract, Solutions-IES performs quarterly groundwater monitoring in March, June, September and December, and O&M of the air sparge (AS) system. This Annual Monitoring Report summarizes the activities performed at the site from March through December 2008. Data for the fourth quarter 2008 sampling event, conducted in December 2008, are presented in detail. Additional information from the previous 2008 sampling events has been provided in previously submitted quarterly monitoring reports.

1.1 SITE LOCATION AND DESCRIPTION

The Building 46 site formerly served as a gasoline station at the former NAS Cecil Field. Underground storage tanks (USTs) were housed at the site, some of which were in operation prior to 1970. Past release(s) from the USTs resulted in fuel-related impacts to unsaturated soil and groundwater. A site location map is included as **Figure 1**.

1.2 SITE HISTORY

In an attempt to reduce concentrations of petroleum related contaminants in the groundwater at the site to below the Florida Department of Environmental Protection (FDEP) groundwater clean-up target levels (GCTLs), two Phoster® Nutrient Injection Systems (east and west) were installed and operated on the site from 2001 to 2004. During this time, nitrogen and phosphorus were injected into the subsurface to promote biodegradation of contaminants of concern. Nutrient injection was discontinued in April 2004 when the aquifers anaerobic state was no longer conducive to biodegradation. However, the compressors were still used to inject oxygen into the aquifer and enhance the biodegradation of benzene, toluene, ethylbenzene and xylenes (BTEX); naphthalene; methyl-*tert*-butyl-ether (MTBE); and total recoverable petroleum hydrocarbons (TRPH).

In January 2008, the FDEP approved discontinuing use of the west system. Both systems were removed from the site on January 31, 2008. An AS trailer with a Sullivan-Palatek 30D7 compressor was installed on the east side of the site on September 17, 2008. The system was connected to the six sparge wells

illustrated in **Figure 2** (CEF-046-BD-1, -2, -3, -4, -6 and -7), surrounding the two hot spots (monitoring wells CEF-046-1S and CEF-046-7I), as instructed by the RAC contractor (CH2M Hill).

Solutions-IES was unable to inject air into wells BD-3 and BD-7. Several attempts were made to try to clear debris from the wells. However, the wells are clogged due to corrosion of the iron well casings. On September 24, 2008, Solutions-IES re-mobilized to the site to attempt to clean out the wells, to increase flow and decrease pressure to the intended levels (original design parameters). The activities performed were unsuccessful in clearing wells BD-3 and BD-7.

2.0 GROUNDWATER MONITORING SUMMARY

At this time, there are 14 active monitoring wells on the site (**Figure 2**). They are screened at depths ranging between approximately 13 and 90 feet below ground surface (ft bgs). Each monitoring well is sampled on a quarterly basis in March, June, September and December.

During each quarterly monitoring event, water levels were recorded and samples were collected from the wells listed below for laboratory analysis of BTEX, MTBE, polycyclic aromatic hydrocarbons (PAHs), TRPH and sulfate.

2.1 MONITORING WELL OBSERVATIONS

The integrity of the monitoring wells included in the long-term monitoring plan was evaluated during each sampling event. The field team noted no extensive damage (i.e., the need for well replacement or repair) to the wells during the 2008 events. Several of the wells have minor issues including missing bolts from the well covers and missing locks.

Monitoring Well	Screened Interval
CEF-46-1S	Shallow
CEF-46-2S	Shallow
CEF-46-5I	Intermediate
CEF-46-6D	Deep
CEF-46-7I	Intermediate
CEF-46-9I	Intermediate
CEF-46-12I	Intermediate

CEF-46-13I	Intermediate
CEF-46-14D	Deep
CEF-46-15I	Intermediate
CEF-46-21I	Intermediate
CEF-46-24D	Deep
CEF-46-25I	Intermediate
CEF-46-26I	Intermediate

2.2 WATER LEVEL MEASUREMENTS

Water level measurements were recorded quarterly at the Building 46 site. The top of casing elevations, depth to groundwater and calculated groundwater elevations are provided in **Table 1**.

A groundwater contour map, generated using the groundwater elevations in the intermediate wells, as measured during the December 2008 event is included as **Figure 3**. According to water level measurements obtained on December 17, 2008, groundwater flows south-southwest in the intermediate zone at the site. This groundwater flow direction is consistent with those determined from the previous 2008 sampling events. There are insufficient data points to contour shallow and deep wells.

A groundwater flow gradient and velocity were calculated for the intermediate aquifer using December 2008 data using the following formula:

$$v = \frac{K * i}{n}$$

where: K = hydraulic conductivity (ft/day)
i = hydraulic gradient (ft/ft)
n = effective porosity (unitless)

The hydraulic conductivity for this aquifer was defined in the Site Assessment Report (HLA, 1998) as 58 ft/day and the hydraulic gradient was calculated to be 0.003. Assuming an effective porosity of 0.25 (estimated value for silty sand), the groundwater velocity is calculated to be 0.70 ft/day.

2.3 GROUNDWATER SAMPLING

2.3.1 Methodology

Groundwater sampling was conducted at the Building 46 site on a quarterly basis in March, June, September and December 2008. Fourteen monitoring wells (CEF-046-01S, -02S, -05I, -06D, -07I, -09I, -12I, -13I, -

14D, -15I, -21I, -24D, -25I, and -26I) were purged and sampled using low-flow methodology.

The wells were purged immediately before sampling using a low flow peristaltic pump, at an approximate rate equal to or less than the groundwater recharge rate until field parameters (temperature, pH, conductivity, turbidity, and dissolved oxygen [DO]) stabilized. Samples were collected for field analysis of carbon dioxide, alkalinity, ferrous iron, hydrogen sulfide and DO using CHEMetrics® field test kits. Additional, low-level DO readings were obtained with the field meter. Oxidation-reduction potential (ORP) readings were also recorded during purging.

Groundwater sampling was conducted in general accordance with applicable state and local guidelines, and the Solutions-IES Work Plan (February 2008; Revision 01 dated September 24, 2008). All samples collected were stored on ice and delivered to Accutest Laboratory, a Florida-certified and National Environmental Laboratory Accreditation Program (NELAP) certified laboratory, located in Orlando, Florida, via courier, under chain-of-custody procedures.

Results of the field measurements are summarized in **Table 2**. Copies of the groundwater sampling logs including all field parameter measurements are provided in **Appendix A**.

2.3.2 Laboratory Analyses

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

- BTEX and MTBE by EPA Method 8260B
- PAHs by EPA Method 8270C
- TRPH by FL PRO
- Sulfate by EPA Method 300.0

A Level II data report was provided by the laboratory and can be found in **Appendix B**.

2.4 INVESTIGATION DERIVED WASTE (IDW)

Purge, wash and rinse water was collected in 5-gallon containers and transferred to a labeled 55-gallon drum (Drum ID SIES1208-003). The drum was staged in the IDW Storage Building (Building 536). The NAS Jacksonville Public Works Department (PWD-JAX) was notified after each sampling event that the drum was being kept in the building. The non-hazardous data package for disposal of the December 2008 IDW was forwarded to PWD-JAX on January 22, 2009.

3.0 AIR SPARGE SYSTEM O&M SUMMARY

The AS system became operational on September 17, 2008. Since that time, weekly O&M system checks have been performed by Solutions-IES' subcontractor Enviro-Resources, Inc. Weekly O&M forms can be found in **Appendix C**.

Routine maintenance has been performed during weekly visits. No major operational problems were encountered with the system since the system was started in September 2008. From September to December 2008, air was injected into wells BD-1, BD-2, BD-4, and BD-6. Wells BD-3 and BD-7 are blocked and unusable at this time.

The system was turned off for approximately one week before each of the sampling events. The system was also off for a few days prior to the October 9, 2008 site visit and the November 5, 2008 visit due to power outages.

4.0 SAMPLING AND ANALYTICAL RESULTS

4.1 DATA VALIDATION

Accutest data analysts validated all data according to laboratory standard operating procedures (SOPs). The laboratory case narrative indicated a number of other QC notes for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and sulfate during December 2008. Most QC irregularities were recognized as matrix interference and sample nonhomogeneity (sulfate). The validation process also resulted in several data qualifiers. These are shown with the analyte concentrations in **Table 3**.

A limited data validation was also performed by Solutions-IES. This limited data validation evaluated data completeness, holding time compliance, laboratory blank contamination and detection limits. According to laboratory results (**Appendix B**), naphthalene was detected in the field blank at a concentration of 0.25 µg/L in December 2008. No other issues were identified.

4.2 NATURAL ATTENUATION PARAMETERS

As part of each 2008 quarterly sampling event, groundwater samples were analyzed in the field for the natural attenuation parameters, DO, alkalinity, carbon dioxide, hydrogen sulfide, and ferrous iron. In

addition, field parameters including temperature, pH, conductivity, turbidity, and ORP were measured and recorded during well purging. The results of the field measurements are summarized in **Table 2** and the December 2008 results are discussed in the following paragraphs.

Field measurements indicate that DO concentrations at the Building 46 site are relatively low with a range from 0.0 to 2 mg/L. DO measurements were collected with a DO meter and a flow through cell while purging and confirmed with a CHEMetrics® field kit at the time of sample collection. Several anomalous readings (CEF-046-12I, CEF-046-14D and CEF-046-26I) from the field meter were not confirmed with the field kits. The higher DO readings identified in wells CEF-046-5I and CEF-046-6D are believed to be related to the operation of the AS system. Prior to the system installation in September 2008, these reading were below 1 mg/L.

ORP is a measure of electron activity of the groundwater. Positive ORP values indicate that an oxidative environment exists in the aquifer and negative ORP values indicate a reducing environment. The ORP measurements collected at the site range from -210 to 432. The ORP values in the source area show an increase in the December 2008 values as compared to the September 2008 values which were recorded before the system was started. Wells hot spot wells, CEF-046-01S, CEF-046-02S, and CEF-046-07I, showed a change from a negative ORP to a positive ORP in December 2008.

The pH at the site generally ranges from 2.19 to 6.39 which is consistent with previous pH measurements at this site. Minor fluctuations in pH values were noted but no substantial change was identified since the restart of the AS system. Conductivity, temperature and turbidity measurements were recorded to ensure that representative samples were collected.

Carbon dioxide readings that are elevated above background values are an indication that biodegradation of BTEX contaminants may be occurring. This in turn may increase the alkalinity as carbon dioxide can dissolve carbonate minerals that may be present in the aquifer material. Alkalinity and carbon dioxide values measured in 2008 were generally consistent with historical values. No major changes were identified since the restart of the system in September 2008. A few extraordinarily high values (1000+ mg/L) were noted in December 2008 but are believed to be associated with test interference rather than a change in aquifer geochemistry.

Under anaerobic conditions, ferric iron may be used as an electron acceptor during the process of biological degradation of petroleum compounds. The ferric iron, which is not directly measurable in

groundwater due to its low solubility, is reduced to ferrous iron during this process which is a much more soluble form of iron. Elevated levels of ferrous iron coupled with decreased levels of BTEX can be used as an indicator that anaerobic biodegradation of the BTEX compounds may be occurring. Similarly, sulfate can be reduced to sulfide under anaerobic conditions. Elevated concentrations of hydrogen sulfide are an indirect measure of the total sulfide concentrations in groundwater. If hydrogen sulfide concentrations increase along with a decrease in sulfate and BTEX compounds, anaerobic biodegradation of the contaminants may be occurring under sulfate reducing conditions.

In general, readings of ferrous iron and hydrogen sulfide recorded in 2008 are consistent with historical data for the site. No substantial change was identified since the restart of the system in September 2008. Sulfate concentrations remain elevated with 6 of the 14 wells sampled exhibiting concentrations in excess of the GCTL (250 mg/L).

4.3 LABORATORY ANALYTICAL RESULTS

Results from the 2008 quarterly sampling events, along with historical sampling results can be found in **Table 3**. Locations and constituent concentrations in excess of the regulatory limits during the last four quarters of sampling are shown on **Figure 4**. Trends in sulfate concentrations over time in historically impacted monitoring wells are shown in **Figure 5**. In general, contaminant concentrations decreased during the December 2008 sampling event and none of the sampled constituents exceeded their respective Natural Attenuation Default Source Concentrations (NADSC) during that event. A more detailed summary of the exceedances in the two hot spot areas is provided below.

<u>CEF-046-01S:</u>

Results from the 2008 sampling indicate that benzene, ethylbenzene, xylenes, MTBE, naphthalene, 1-methylnaphthalene, 2-methynaphthalene, sulfate and TRPH were all detected above the GCTLs in monitoring well CEF-46-01S during 2008. These constituents have exceeded their respective GCTLs in this well since 2003, however, 1-methylnaphthalene and 2-methynaphthalene dropped below their respective GCTLs in December 2008. The xylenes, naphthalene and TRPH concentrations also exceeded their respective NADSC values during certain 2008 sampling events but no constituent concentrations exceeded the NADSC during December 2008. An overall decrease in concentrations was identified during the December 2008 sampling event in this well, potentially as a result of the restart of the AS system. Historical concentration trends for BTEX and PAH constituents for this well are provided in **Figures 6** and **7**, respectively.

CEF-046-07I:

Benzene and MTBE are the only constituents with concentrations that remain in excess of the GCTLs in this well. Sulfate was detected at a concentration of 118 mg/L which is below the GCTL of 250 mg/L. The concentration of benzene has dropped from 64.2 µg/L in March 2008 to 24.1 µg/L in December 2008. MTBE concentrations decreased from 147 µg/L in March to 65.1 µg/L in September, but then increased to 169 µg/L in December. The concentration remains well above the GCTL of 20 µg/L but less than the NADSC of 200 µg/L.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The December 2008 sampling event was conducted in general accordance with previous sampling events. No changes were made to the Work Plan (Solutions-IES, 2008) during 2008. Water level data suggest that groundwater in the intermediate zone at this site flows to the south-southwest.

Monitoring well CEF-046-01S remains the well with the most impacts and is one of the hot spots that is targeted by the AS system. Monitoring well CEF-046-07I has also historically shown high concentrations of the contaminants of concern and is the other area targeted with the AS system. Sulfate is the only constituent that is elevated above the GCTLs outside of these two areas.

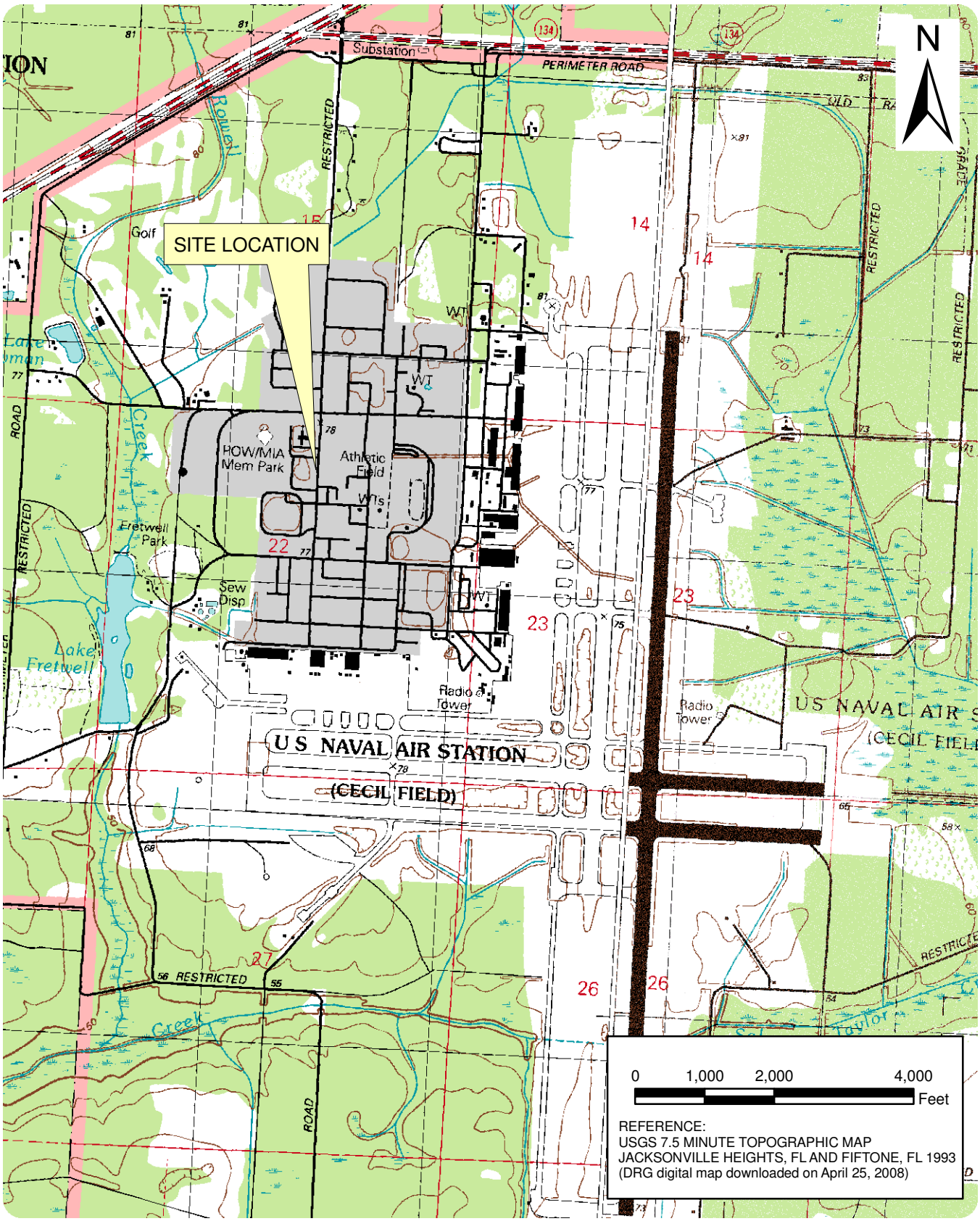
An existing AS system was removed from the site in January 2008. Solutions-IES reinstalled a modified AS system which began operation on September 24, 2008. In general, constituents of concern have decreased since air sparging has restarted at the site, but it is too early to determine any trends. The AS system will continue to be monitored weekly and the next sampling event will take place in March 2009.

6.0 REFERENCES

HLA, 1998. *Site Assessment Report, Building 46, Tanks 46R, 46D, 46SUL, and 46UL, Base Realignment and Closure Miscellaneous Tank Sites, Naval Air Station Cecil Field, Jacksonville, Florida.* Prepared for SOUTHNAVFACENGCOM, North Charleston, South Carolina.

Solutions-IES, Inc., 2008. *Work Plan-Long Term Monitoring and Operation & Maintenance,* Former Naval Air Station Cecil Field, Jacksonville, Florida. February 2008..

FIGURES



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SITE LOCATION MAP
BUILDING 46 - NAS CECIL FIELD
JACKSONVILLE, FL

FIGURE:
1

FILE	DATE	PROJECT MANAGER	CHECKED BY	DRAFTER	PROJECT NUMBER
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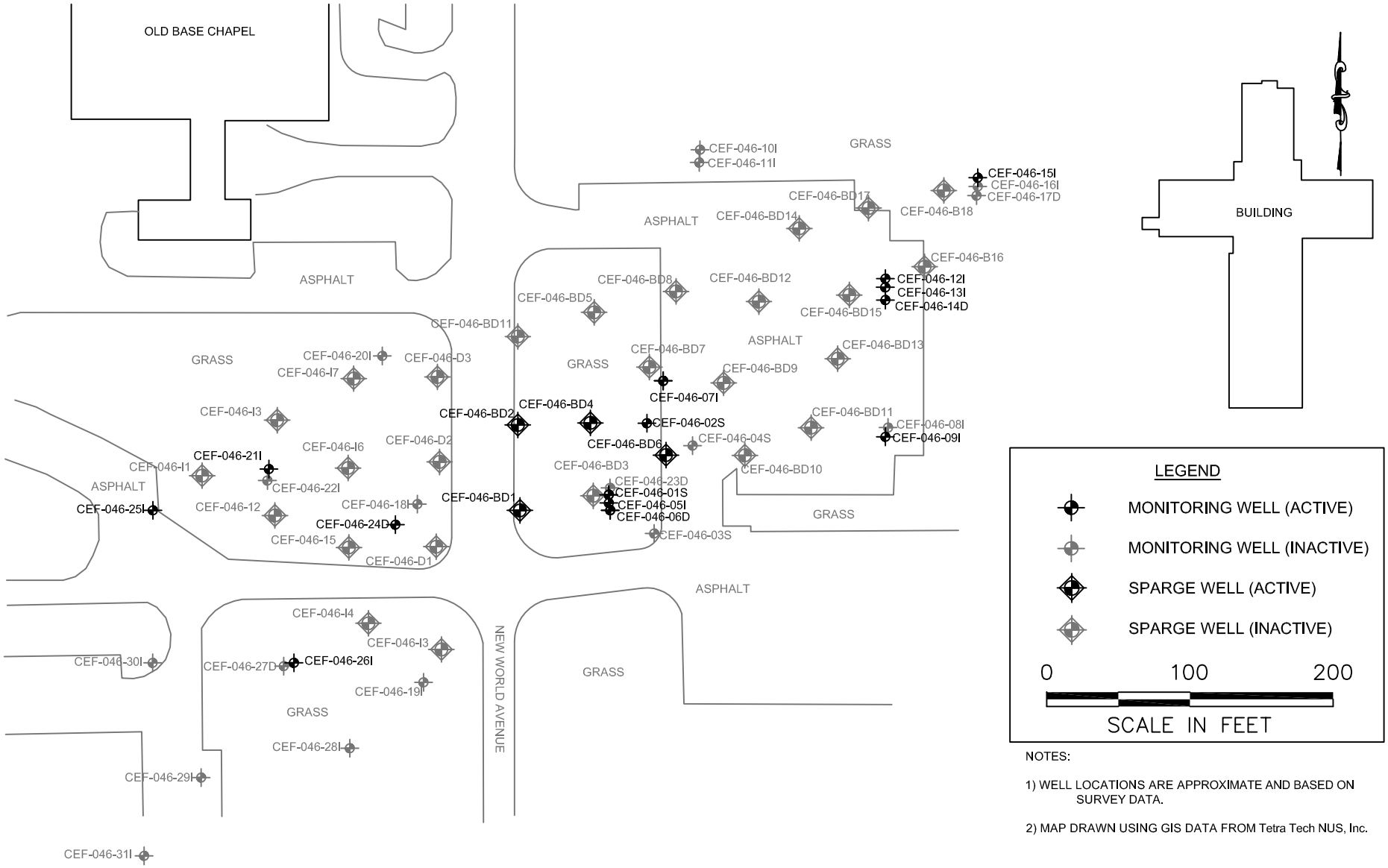

NOTES:

1) WELL LOCATIONS ARE APPROXIMATE AND BASED ON SURVEY DATA.

2) MAP DRAWN USING GIS DATA FROM Tetra Tech NUS, Inc.

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WELL LOCATION MAP
BUILDING 46 - NAS CECIL FIELD
JACKSONVILLE, FL
DECEMBER 2008

FIGURE:

2

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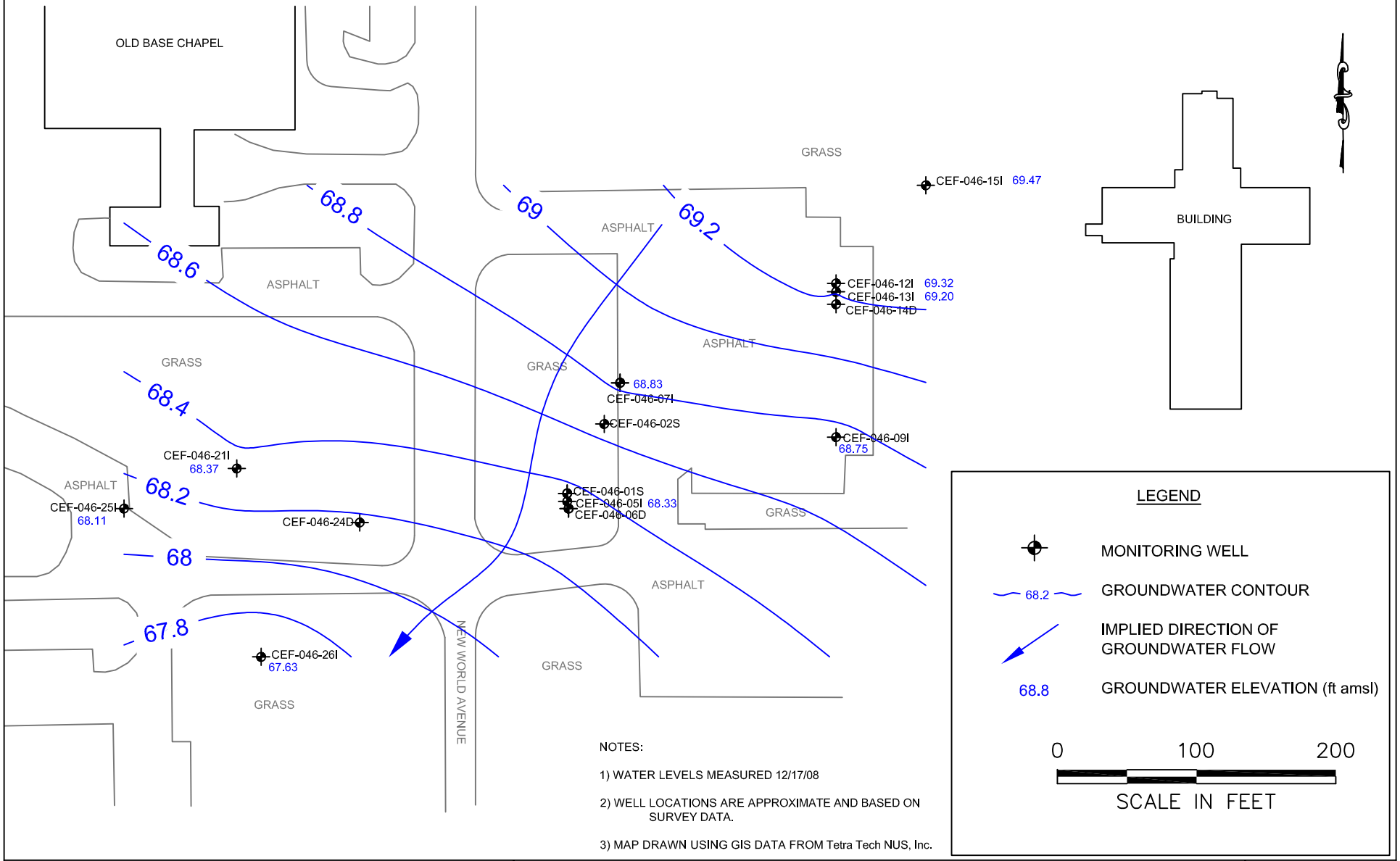

NOTES:

1) WATER LEVELS MEASURED 12/17/08

2) WELL LOCATIONS ARE APPROXIMATE AND BASED ON SURVEY DATA.

3) MAP DRAWN USING GIS DATA FROM Tetra Tech NUS, Inc.

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GROUNDWATER CONTOUR MAP - INTERMEDIATE AQUIFER
BUILDING 46 - NAS CECIL FIELD
JACKSONVILLE, FL
DECEMBER 2008

FIGURE:

3

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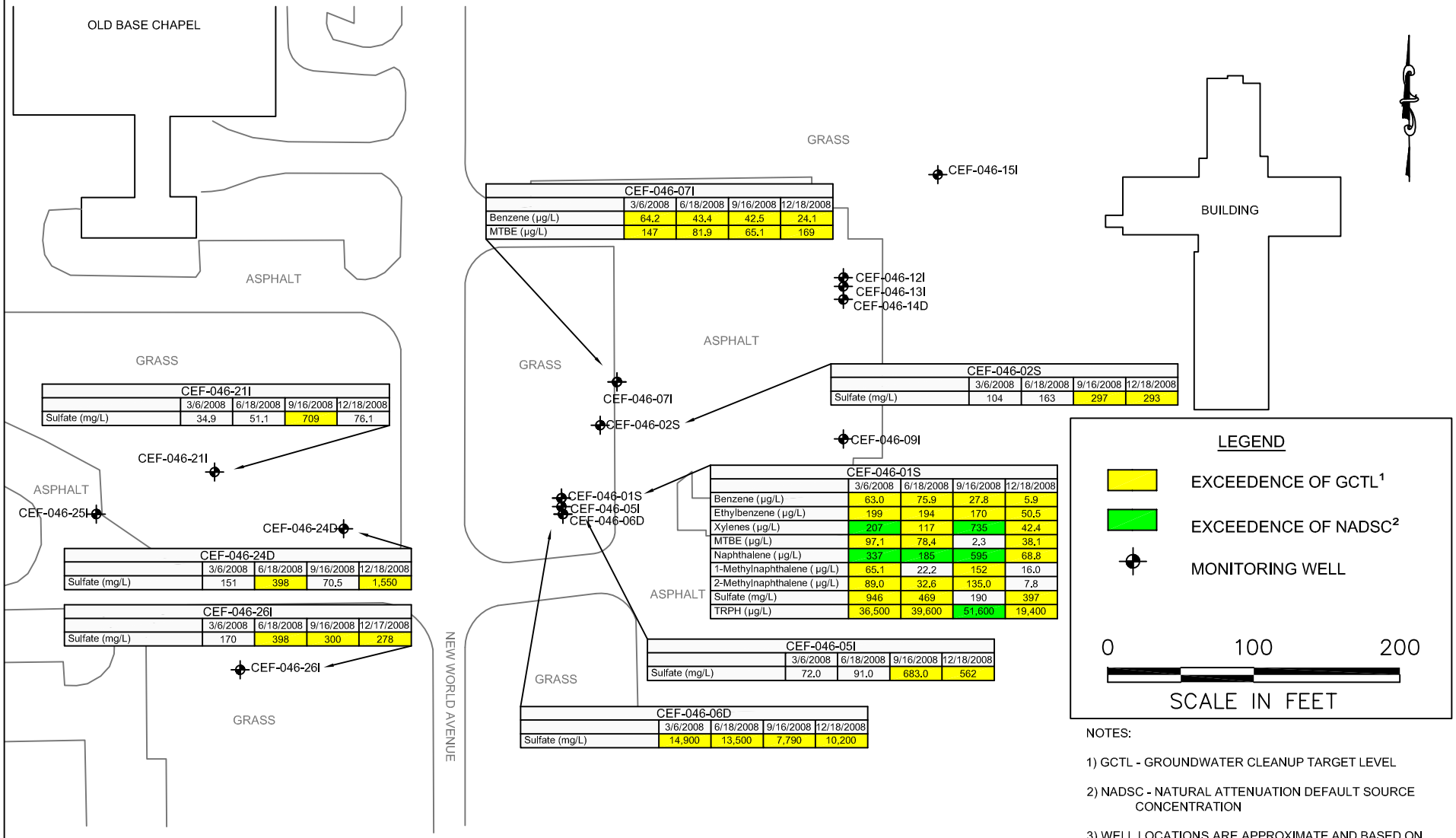

CEF-046-07I	3/6/2008	6/18/2008	9/16/2008	12/18/2008
Benzene (µg/L)	64.2	43.4	42.5	24.1
MTBE (µg/L)	147	81.9	65.1	169

CEF-046-02S	3/6/2008	6/18/2008	9/16/2008	12/18/2008
Sulfate (mg/L)	104	163	297	293

CEF-046-21I	3/6/2008	6/18/2008	9/16/2008	12/18/2008
Sulfate (mg/L)	34.9	51.1	709	76.1

CEF-046-01S	3/6/2008	6/18/2008	9/16/2008	12/18/2008
Benzene (µg/L)	63.0	75.9	27.8	5.9
Ethylbenzene (µg/L)	199	194	170	50.5
Xylenes (µg/L)	207	117	735	42.4
MTBE (µg/L)	97.1	78.4	2.3	38.1
Naphthalene (µg/L)	337	185	595	68.8
1-Methylnaphthalene (µg/L)	65.1	22.2	152	16.0
2-Methylnaphthalene (µg/L)	89.0	32.6	135.0	7.8
Sulfate (mg/L)	946	469	190	397
TRPH (µg/L)	36,500	39,600	51,600	19,400

CEF-046-24D	3/6/2008	6/18/2008	9/16/2008	12/18/2008
Sulfate (mg/L)	151	398	70.5	1,550

CEF-046-26I	3/6/2008	6/18/2008	9/16/2008	12/17/2008
Sulfate (mg/L)	170	398	300	278

CEF-046-05I	3/6/2008	6/18/2008	9/16/2008	12/18/2008
Sulfate (mg/L)	72.0	91.0	683.0	562

CEF-046-06D	3/6/2008	6/18/2008	9/16/2008	12/18/2008
Sulfate (mg/L)	14,900	13,500	7,790	10,200

NOTES:

1) GCTL - GROUNDWATER CLEANUP TARGET LEVEL

2) NADSC - NATURAL ATTENUATION DEFAULT SOURCE CONCENTRATION

3) WELL LOCATIONS ARE APPROXIMATE AND BASED ON SURVEY DATA.

4) MAP DRAWN USING GIS DATA FROM Tetra Tech NUS, Inc.

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CONTAMINANT CONCENTRATION MAP
BUILDING 46 - NAS CECIL FIELD
JACKSONVILLE, FL
DECEMBER 2008

FIGURE:

4

Figure 5
Sulfate Concentrations in Select Wells
June 2005 - December 2008

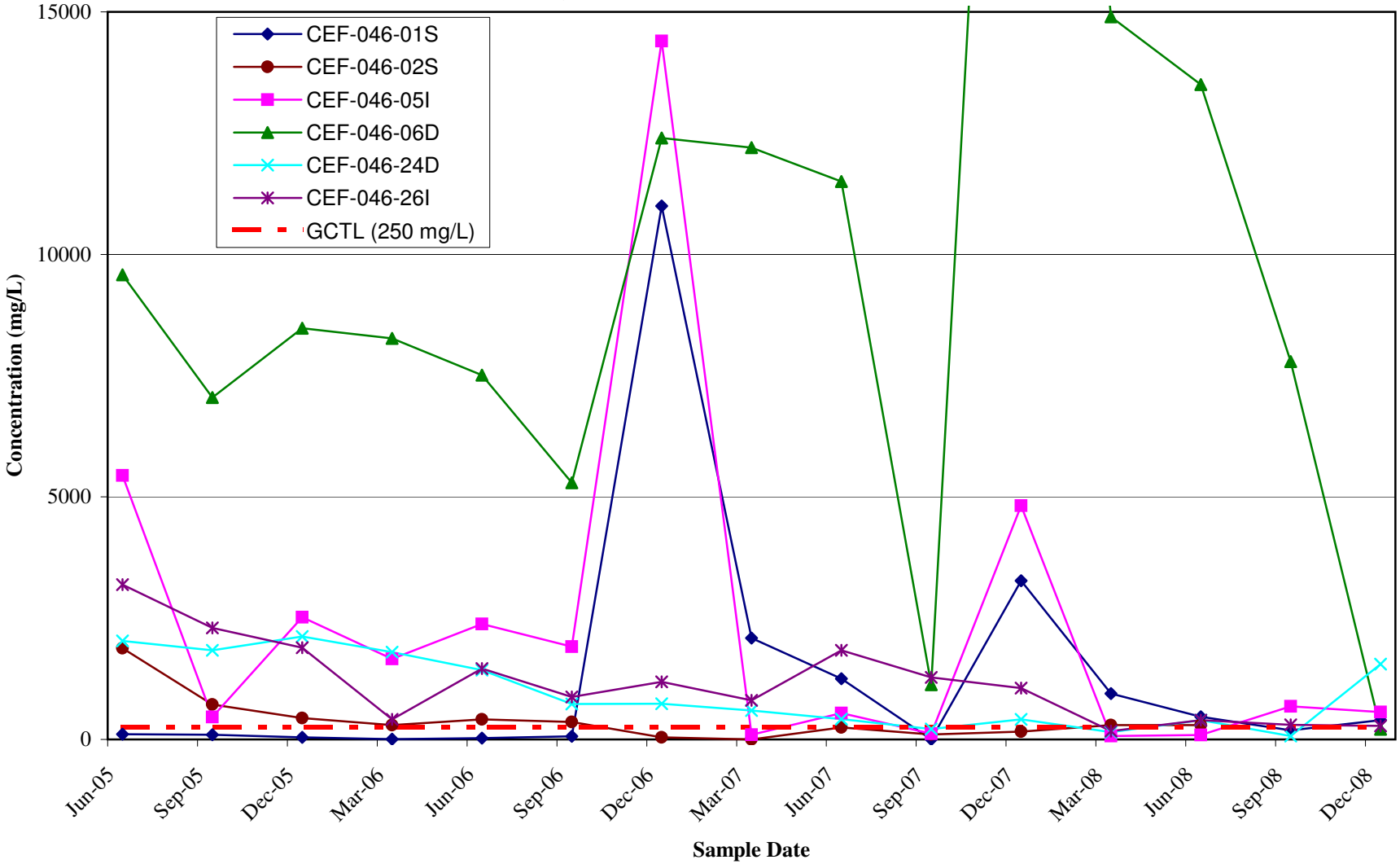


Figure 6
BTEX Concentrations in CEF-046-01S
March 2003 - December 2008

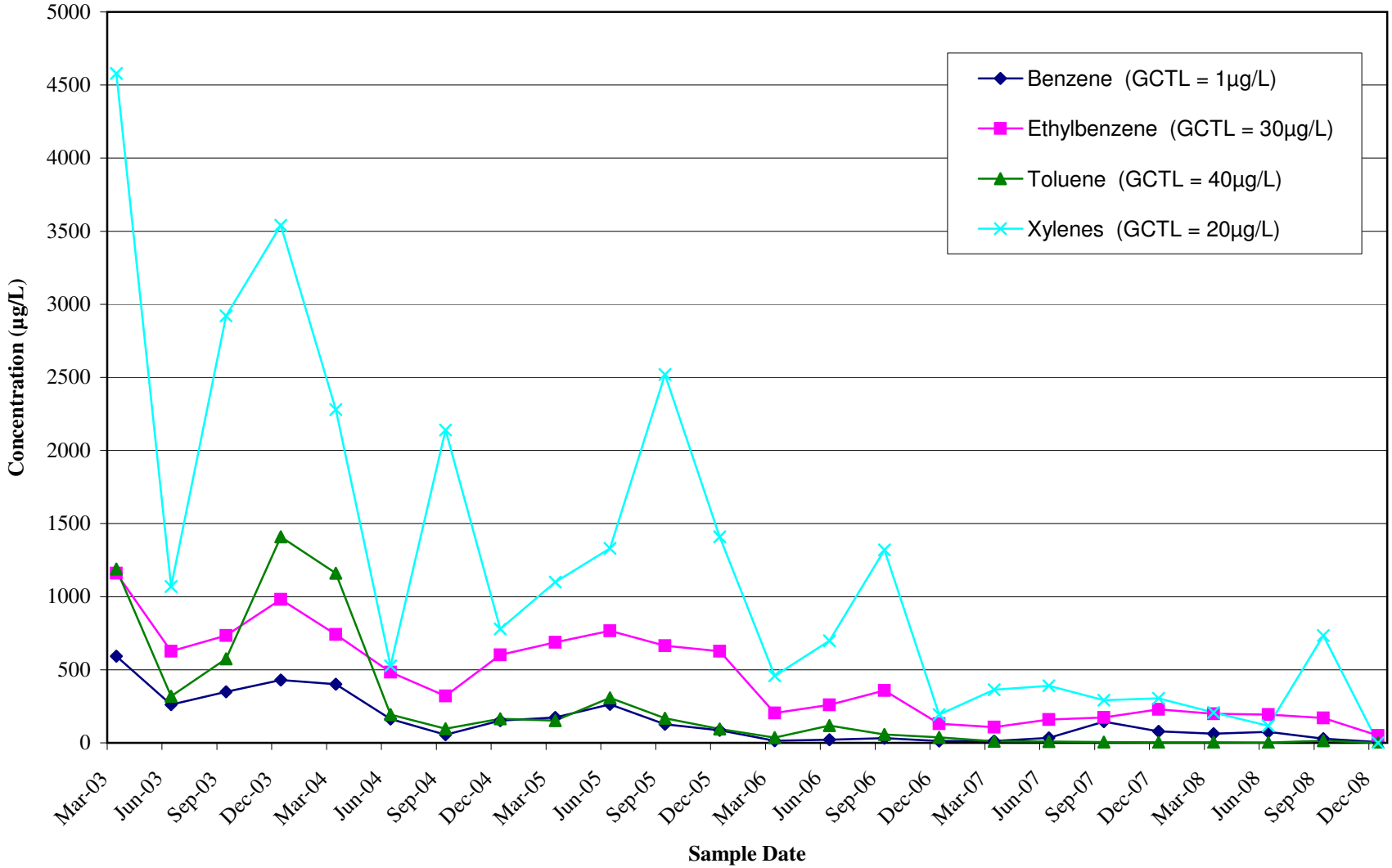
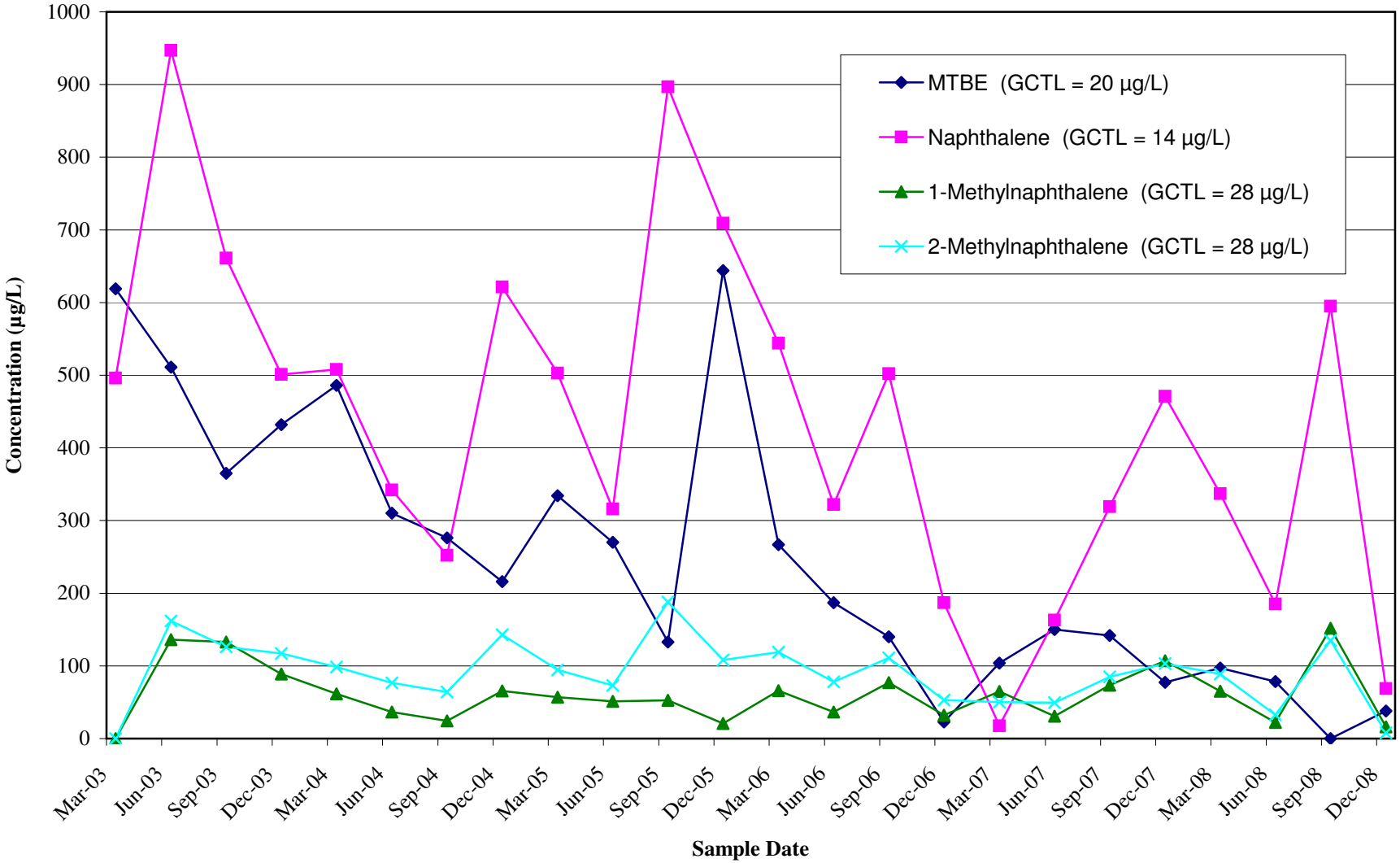


Figure 7
PAH Constituents in CEF-046-01S
March 2003 - December 2008



TABLES

TABLE 1
GROUNDWATER ELEVATION AND FREE PRODUCT DATA

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well ID	Date Measured	Total Depth (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Product (ft btoc)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
CEF-046-01S	12/21/00	14.24	79.08	No Product	4.94	74.14
	03/14/03			No Product	2.55	76.53
	06/09/03			No Product	2.40	76.68
	09/03/03			No Product	3.42	75.66
	12/11/03			No Product	5.20	73.88
	03/18/04			No Product	5.92	73.16
	06/08/04			No Product	7.80	71.28
	09/21/04			No Product	3.42	75.66
	12/01/04			No Product	7.06	72.02
	03/13/05			No Product	9.00	70.08
	06/09/05			No Product	9.04	70.04
	09/06/05			No Product	6.95	72.13
	12/06/05			No Product	8.79	70.29
	03/29/06			No Product	9.31	69.77
	06/09/06			No Product	10.95	68.13
	09/24/06			No Product	12.60	66.48
	12/08/06			No Product	12.52	66.56
	03/01/07			No Product	12.10	66.98
	06/15/07			No Product	12.02	67.06
	09/12/07			No Product	11.32	67.76
	12/05/07			No Product	10.16	68.92
	03/05/08			No Product	9.80	69.28
	06/17/08			No Product	10.47	68.61
	09/16/08			No Product	5.42	73.66
	12/17/08			No Product	9.96	69.12
CEF-046-02S	12/21/00	13.88	79.08	No Product	5.02	74.06
	03/14/03			No Product	2.55	76.53
	06/05/03			No Product	3.75	75.33
	09/03/03			No Product	2.70	76.38
	12/11/03			No Product	5.04	74.04
	03/18/04			No Product	6.02	73.06
	06/08/04			No Product	7.80	71.28
	09/21/04			No Product	3.75	75.33
	12/01/04			No Product	7.02	72.06
	03/13/05			No Product	8.86	70.22
	06/09/05			No Product	8.95	70.13
	09/06/05			No Product	6.70	72.38
	09/21/05			No Product	6.60	72.48
	12/06/05			No Product	8.23	70.85
	03/30/06			No Product	9.22	69.86
	06/09/06			No Product	10.83	68.25
	09/24/06			No Product	11.54	67.54
	12/08/06			No Product	12.32	66.76
	03/01/07			No Product	11.98	67.10
	06/15/07			No Product	12.00	67.08
	09/12/07			No Product	11.28	67.80
	12/05/07			No Product	10.07	69.01
	03/05/08			No Product	9.68	69.40
	06/17/08			No Product	10.37	68.71
	09/16/08			No Product	5.60	73.48
	12/17/08			No Product	9.85	69.23
CEF-046-03S	12/06/05	15.00	79.14	No Product	9.19	69.95
CEF-046-04S	12/06/05	15.00	79.29	No Product	8.85	70.44
CEF-046-05I	12/21/00	49.65	79.18	No Product	5.81	73.37
	03/14/03			No Product	3.40	75.78
	06/05/03			No Product	4.90	74.28
	09/03/03			No Product	6.25	72.93
	12/11/03			No Product	6.64	72.54
	03/18/04			No Product	7.89	71.29
	06/08/04			No Product	9.40	69.78
	09/21/04			No Product	5.71	73.47
	12/01/04			No Product	9.23	69.95
	03/13/05			No Product	10.11	69.07
	06/09/05			No Product	10.45	68.73
	09/06/05			No Product	8.63	70.55
	12/06/05			No Product	10.01	69.17
	03/29/06			No Product	10.68	68.50
	06/09/06			No Product	11.95	67.23
	09/24/06			No Product	12.62	66.56
	12/08/06			No Product	14.82	64.36
	03/01/07			No Product	12.85	66.33
	06/15/07			No Product	12.93	66.25
	09/12/07			No Product	12.27	66.91
	12/05/07			No Product	11.10	68.08
	03/05/08			No Product	10.98	68.20
	06/17/08			No Product	11.49	67.69
	09/16/08			No Product	7.41	71.77
	12/17/08			No Product	10.85	68.33

TABLE 1
GROUNDWATER ELEVATION AND FREE PRODUCT DATA

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well ID	Date Measured	Total Depth (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Product (ft btoc)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
CEF-046-06D	12/21/00	79.82	79.17	No Product	7.40	71.77
	03/14/03			No Product	6.50	72.67
	06/09/03			No Product	8.00	71.17
	09/03/03			No Product	5.82	73.35
	12/10/03			No Product	7.30	71.87
	03/16/04			No Product	10.60	68.57
	06/08/04			No Product	11.69	67.48
	09/21/04			No Product	7.46	71.71
	12/01/04			No Product	9.72	69.45
	03/13/05			No Product	10.58	68.59
	06/09/05			No Product	10.20	68.97
	09/06/05			No Product	9.66	69.51
	12/06/05			No Product	10.95	68.22
	03/29/06			No Product	10.78	68.39
	06/09/06			No Product	12.24	66.93
	09/24/06			No Product	9.21	69.96
	12/08/06			No Product	16.90	62.27
	03/01/07			No Product	13.21	65.96
	06/15/07			No Product	13.40	65.77
	09/12/07			No Product	12.99	66.18
	12/05/07			No Product	11.49	67.68
	03/05/08			No Product	11.23	67.94
	06/17/08			No Product	11.95	67.22
	09/16/08			No Product	9.71	69.46
	12/17/08			No Product	13.19	65.98
CEF-046-07I	12/21/00	29.68	79.02	No Product	5.45	73.57
	03/14/03			No Product	3.30	75.72
	06/09/03			No Product	3.20	75.82
	09/03/03			No Product	2.80	76.22
	12/11/03			No Product	5.84	73.18
	03/18/04			No Product	7.40	71.62
	06/08/04			No Product	8.80	70.22
	09/21/04			No Product	4.95	74.07
	12/01/04			No Product	8.60	70.42
	03/13/05			No Product	9.71	69.31
	06/09/05			No Product	9.40	69.62
	09/06/05			No Product	7.19	71.83
	12/06/05			No Product	9.00	70.02
	03/30/06			No Product	9.91	69.11
	06/09/06			No Product	11.30	67.72
	09/24/06			No Product	11.82	67.20
	12/08/06			No Product	10.35	68.67
	03/01/07			No Product	12.82	66.20
	06/15/07			No Product	12.95	66.07
	09/12/07			No Product	11.74	67.28
	12/05/07			No Product	10.22	68.80
	03/05/08			No Product	9.97	69.05
	06/17/08			No Product	10.68	68.34
	09/16/08			No Product	6.47	72.55
	12/17/08			No Product	10.19	68.83
CEF-046-08I	12/06/05	30.50	78.91	No Product	9.10	69.81
CEF-046-09I	12/21/00	48.81	79.05	No Product	5.67	73.38
	03/14/03			No Product	2.55	76.50
	06/04/03			No Product	4.10	74.95
	09/03/03			No Product	3.32	75.73
	12/11/03			No Product	5.79	73.26
	03/16/04			No Product	7.20	71.85
	06/08/04			No Product	8.92	70.13
	09/21/04			No Product	5.29	73.76
	12/01/04			No Product	8.44	70.61
	03/13/05			No Product	9.58	69.47
	06/09/05			No Product	9.78	69.27
	09/06/05			No Product	7.86	71.19
	12/06/05			No Product	9.40	69.65
	03/30/06			No Product	9.95	69.10
	06/09/06			No Product	11.32	67.73
	09/24/06			No Product	11.89	67.16
	12/08/06			No Product	12.90	66.15
	03/01/07			No Product	12.26	66.79
	06/15/07			No Product	12.26	66.79
	09/12/07			No Product	11.61	67.44
	12/05/07			No Product	10.51	68.54
	03/05/08			No Product	10.20	68.85
	06/17/08			No Product	10.88	68.17
	09/16/08			No Product	6.97	72.08
	12/17/08			No Product	10.30	68.75
CEF-046-10I	12/06/05	30.50	80.18	No Product	9.08	71.10
CEF-046-11I	12/06/05	50.50	80.23	No Product	9.73	70.50

TABLE 1
GROUNDWATER ELEVATION AND FREE PRODUCT DATA

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well ID	Date Measured	Total Depth (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Product (ft btoc)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
CEF-046-12I	12/21/00	29.61	78.73	No Product	5.23	73.50
	03/14/03			No Product	2.10	76.63
	06/05/03			No Product	3.30	75.43
	09/03/03			No Product	2.90	75.83
	12/11/03			No Product	5.45	73.28
	03/18/04			No Product	6.45	72.28
	06/08/04			No Product	8.10	70.63
	09/21/04			No Product	4.30	74.43
	12/01/04			No Product	7.25	71.48
	03/13/05			No Product	8.70	70.03
	06/09/05			No Product	8.80	69.93
	09/06/05			No Product	6.80	71.93
	12/06/05			No Product	8.35	70.38
	03/29/06			No Product	8.93	69.80
	06/09/06			No Product	10.54	68.19
	09/25/06			No Product	11.13	67.60
	12/08/06			No Product	12.00	66.73
	03/01/07			No Product	11.51	67.22
	06/15/07			No Product	11.48	67.25
	09/12/07			No Product	10.80	67.93
	12/05/07			No Product	9.61	69.12
	03/05/08			No Product	9.22	69.51
	06/17/08			No Product	9.57	69.16
	09/16/08			No Product	5.98	72.75
	12/17/08			No Product	9.41	69.32
CEF-046-13I	12/21/00	39.56	78.87	No Product	5.43	73.44
	03/14/03			No Product	2.31	76.56
	06/05/03			No Product	3.50	75.37
	09/03/03			No Product	3.10	75.77
	12/11/03			No Product	5.90	72.97
	03/18/04			No Product	6.85	72.02
	06/08/04			No Product	8.61	70.26
	09/21/04			No Product	4.65	74.22
	12/01/04			No Product	7.60	71.27
	03/13/05			No Product	8.91	69.96
	06/09/05			No Product	9.10	69.77
	09/06/05			No Product	7.15	71.72
	12/06/05			No Product	8.64	70.23
	03/29/06			No Product	9.17	69.70
	06/09/06			No Product	10.95	67.92
	09/25/06			No Product	11.36	67.51
	12/08/06			No Product	12.32	66.55
	03/01/07			No Product	11.73	67.14
	06/15/07			No Product	11.72	67.15
	09/12/07			No Product	11.08	67.79
	12/05/07			No Product	9.90	68.97
	03/05/08			No Product	9.52	69.35
	06/17/08			No Product	10.24	68.63
	09/16/08			No Product	6.34	72.53
	12/17/08			No Product	9.67	69.20
CEF-046-14D	12/21/00	78.79	78.88	No Product	6.86	72.02
	03/14/03			No Product	4.20	74.68
	06/04/03			No Product	6.15	72.73
	09/03/03			No Product	5.15	73.73
	12/10/03			No Product	7.20	71.68
	03/16/04			No Product	8.72	70.16
	06/08/04			No Product	9.75	69.13
	09/21/04			No Product	5.34	73.54
	12/01/04			No Product	7.66	71.22
	03/13/05			No Product	8.54	70.34
	06/09/05			No Product	9.74	69.14
	09/06/05			No Product	8.09	70.79
	12/06/05			No Product	8.42	70.46
	03/26/06			No Product	9.50	69.38
	06/09/06			No Product	10.70	68.18
	09/24/06			No Product	11.14	67.74
	12/08/06			No Product	13.74	65.14
	03/01/07			No Product	11.56	67.32
	06/15/07			No Product	11.52	67.36
	09/12/07			No Product	11.08	67.80
	12/05/07			No Product	9.76	69.12
	03/05/08			No Product	9.39	69.49
	06/17/08			No Product	10.21	68.67
	09/16/08			No Product	7.04	71.84
	12/17/08			No Product	9.88	69.00

TABLE 1
GROUNDWATER ELEVATION AND FREE PRODUCT DATA

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well ID	Date Measured	Total Depth (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Product (ft btoc)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
CEF-046-15I	12/21/00	29.77	79.75	No Product	6.33	73.42
	03/13/03			No Product	3.47	76.28
	06/04/03			No Product	4.54	75.21
	09/03/03			No Product	4.22	75.53
	12/10/03			No Product	6.53	73.22
	03/16/04			No Product	7.40	72.35
	06/08/04			No Product	9.22	70.53
	09/21/04			No Product	5.20	74.55
	12/01/04			No Product	8.07	71.68
	03/13/05			No Product	9.31	70.44
	06/09/05			No Product	9.54	70.21
	09/06/05			No Product	7.69	72.06
	12/06/05			No Product	9.10	70.65
	03/30/06			No Product	9.95	69.80
	06/09/06			No Product	11.46	68.29
	09/24/06			No Product	11.95	67.80
	12/08/06			No Product	12.85	66.90
	03/01/07			No Product	12.30	67.45
	06/15/07			No Product	12.17	67.58
	09/12/07			No Product	11.59	68.16
	12/05/07			No Product	10.46	69.29
	03/05/07			No Product	9.91	69.84
	06/17/08			No Product	10.74	69.01
	09/16/08			No Product	6.91	72.84
	12/17/08			No Product	10.28	69.47
CEF-046-16I	12/06/05	50.00	79.42	No Product	8.96	70.46
CEF-046-17D	12/06/05	80.50	79.15	No Product	8.78	70.37
CEF-046-18I	12/07/05	30.50	78.54	No Product	9.44	69.10
CEF-046-19I	12/07/05	50.50	78.88	No Product	10.55	68.33
CEF-046-20I	12/07/05	30.50	79.34	No Product	9.60	69.74
CEF-046-21I	12/21/00	29.70	79.33	No Product	6.02	73.31
	03/13/03			No Product	2.79	76.54
	06/05/03			No Product	4.18	75.15
	09/03/03			No Product	3.70	75.63
	12/11/03			No Product	7.50	71.83
	03/18/04			No Product	8.35	70.98
	06/08/04			No Product	10.10	69.23
	09/21/04			No Product	5.80	73.53
	12/01/04			No Product	9.15	70.18
	03/13/05			No Product	10.60	68.73
	06/10/05			No Product	10.90	68.43
	09/06/05			No Product	NR	NR
	12/07/05			No Product	10.11	69.22
	03/29/06			No Product	10.60	68.73
	06/09/06			No Product	12.18	67.15
	09/24/06			No Product	12.97	66.36
	12/08/06			No Product	13.81	65.52
	03/01/07			No Product	13.36	65.97
	06/15/07			No Product	13.43	65.90
	09/12/07			No Product	12.67	66.66
	12/05/07			No Product	11.43	67.90
	03/05/08			No Product	11.34	67.99
	06/17/08			No Product	11.87	67.46
	09/16/08			No Product	7.42	71.91
	12/17/08			No Product	10.96	68.37
CEF-046-22I	12/07/05	50.50	79.22	No Product	9.91	69.31
CEF-046-23D	12/07/05	92.50	NA	No Product	11.18	NA
CEF-046-24D	12/21/00	90.45	78.74	No Product	7.30	71.44
	03/14/03			No Product	13.78	64.96
	06/05/03			No Product	6.40	72.34
	09/03/03			No Product	4.97	73.77
	12/10/03			No Product	7.40	71.34
	03/16/04			No Product	8.95	69.79
	06/08/04			No Product	10.68	68.06
	09/21/04			No Product	6.31	72.43
	12/01/04			No Product	9.11	69.63
	03/13/05			No Product	9.92	68.82
	06/09/05			No Product	10.28	68.46
	09/06/05			No Product	8.93	69.81
	12/07/05			No Product	9.92	68.82
	03/29/06			No Product	10.15	68.59
	06/09/06			No Product	11.69	67.05
	09/24/06			No Product	12.12	66.62
	12/08/06			No Product	13.69	65.05
	03/01/07			No Product	12.43	66.31
	06/15/07			No Product	12.66	66.08
	09/12/07			No Product	11.87	66.87
	12/05/07			No Product	10.75	67.99
	03/05/08			No Product	10.46	68.28
	06/17/08			No Product	11.25	67.49
	09/16/08			No Product	7.99	70.75
	12/17/08			No Product	11.01	67.73

TABLE 1
GROUNDWATER ELEVATION AND FREE PRODUCT DATA

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well ID	Date Measured	Total Depth (ft bgs)	Top of Casing Elevation (ft amsl)	Depth to Product (ft btoc)	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft amsl)
CEF-046-25I	12/21/00	50.45	79.17	No Product	6.25	72.92
	03/13/03			No Product	2.49	76.68
	06/04/03			No Product	3.98	75.19
	09/03/03			No Product	3.50	75.67
	12/10/03			No Product	5.98	73.19
	03/16/04			No Product	8.30	70.87
	06/08/04			No Product	10.03	69.14
	09/21/04			No Product	5.61	73.56
	12/01/04			No Product	9.11	70.06
	03/13/05			No Product	10.46	68.71
	06/09/05			No Product	10.56	68.61
	09/06/05			No Product	8.93	70.24
	12/07/05			No Product	10.10	69.07
	03/29/06			No Product	10.50	68.67
	06/09/06			No Product	12.19	66.98
	09/24/06			No Product	12.98	66.19
	12/08/06			No Product	13.89	65.28
	03/01/07			No Product	13.42	65.75
	06/15/07			No Product	13.60	65.57
	09/12/07			No Product	12.85	66.32
	12/05/07			No Product	11.58	67.59
	03/05/08			No Product	11.51	67.66
	06/17/08			No Product	12.14	67.03
	09/16/08			No Product	7.69	71.48
	12/17/08			No Product	11.06	68.11
CEF-046-26I	12/21/00	47.76	79.43	No Product	7.09	72.34
	03/14/03			No Product	3.82	75.61
	06/05/03			No Product	4.30	75.13
	09/03/03			No Product	3.73	75.70
	12/11/03			No Product	6.65	72.78
	03/18/04			No Product	8.05	71.38
	06/08/04			No Product	10.40	69.03
	09/21/04			No Product	6.56	72.87
	12/01/04			No Product	10.20	69.23
	03/13/05			No Product	11.50	67.93
	06/09/05			No Product	11.50	67.93
	09/06/05			No Product	9.90	69.53
	12/07/05			No Product	11.01	68.42
	03/29/06			No Product	11.00	68.43
	06/09/06			No Product	12.90	66.53
	09/24/06			No Product	13.60	65.83
	12/08/06			No Product	14.54	64.89
	03/01/07			No Product	14.08	65.35
	06/15/07			No Product	14.23	65.20
	09/12/07			No Product	13.43	66.00
	12/05/07			No Product	12.22	67.21
	03/05/08			No Product	12.25	67.18
	06/17/08			No Product	12.76	66.67
	09/16/08			No Product	8.53	70.90
	12/17/08			No Product	11.80	67.63
CEF-046-27D	12/07/05	90.00	78.94	No Product	10.65	68.29
CEF-046-28I	12/07/05	50.00	79.38	No Product	11.21	68.17
CEF-046-29I	12/07/05	50.00	79.88	No Product	11.75	68.13
CEF-046-30I	12/07/05	50.00	79.66	No Product	11.10	68.56
CEF-046-31I	12/07/05	50.00	90.02	No Product	12.20	77.82

Notes:
ft bgs - feet below ground surface
ft amsl - feet above mean sea level
ft btoc - feet below top of casing
NM - not measured

TABLE 2
FIELD AND NATURAL ATTENUATION PARAMETERS

Building 46
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	Field Parameters						Natural Attenuation Parameters			
		pH (SU)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)*		Oxidation - Reduction Potential (mV)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
				Meter	CHEMetrics						
CEF-046-01S	12/21/00	6.20	512	1.05	NM	NM	22.70	NM	200	1.4	1.0
	03/14/03	7.54	2520	0.89	NM	-204.00	20.77	ND	100	2.2	5.0
	06/09/03	6.39	1730	ND	NM	-238.00	25.28	Interference	140	3.2	5.0
	09/03/03	6.27	201	2.03	NM	-364.00	27.53	Interference	205	1.0	5.0
	12/11/03	5.98	234	ND	ND	-332.00	23.15	400	250	1.4	5.0
	03/18/04	6.48	220	NM	ND	-278.00	22.33	Interference	175	2.0	5.0
	06/08/04	6.00	1920	0.04	ND	-296.00	26.24	Interference	130	1.0	5.0
	09/21/04	7.42	122	0.00	ND	-234.00	27.97	Interference	100	5.4	5.0
	12/01/04	6.39	2404	0.15	ND	-356.90	26.07	362	205	ND	5.0
	03/13/05	6.23	1467	0.18	ND	-347.60	24.63	170	275	2.8	5.0
	06/09/05	6.24	1223	0.71	ND	-347.10	26.88	140	195	1.8	5.0
	09/06/05	6.52	927	0.20	ND	-367.70	27.64	140	120	1.6	5.0
	12/06/05	6.92	507	0.22	ND	-269.80	23.49	123	85	1.6	5.0
	03/29/06	5.73	355	0.24	ND	-129.80	24.21	280	ND	2.6	5.0
	06/09/06	4.30	405	0.50	ND	-130.00	25.49	83	375	1.5	1.0
	9/24/2006***	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	12/08/06	3.29	10302	0.59	ND	5.10	22.01	426	ND	4.4	5.0
	03/01/07	4.04	5013	0.78	ND	48.8	21.88	205	ND	4.8	2.0
	06/15/07	4.33	4081	0.22	ND	-11.9	30.62	Interference	ND	5.5	2.0
	09/12/07	4.56	2279	0.83	ND	-10.3	29.77	Interference	ND	6.5	1.0
	12/05/07	5.07	2671	3.04	ND	-140.7	25.99	Interference	ND	3.0	5.0
	03/06/08	4.81	2146	0.23	ND	-98.2	24.44	Interference	10	3.6	5.0
	06/17/08	4.87	1135	1.08	ND	-36.5	27.87	Interference	Interference	6.0	5.0+
	09/16/08	5.90	373	0.19	ND	-120.7	27.28	Interference	60	11.0	3.0
	12/18/08	4.80	921	0.44	0.1	43.2	23.55	110	1000+	10+	5.0
CEF-046-02S	12/21/00	6.20	962	1.06	NM	NM	23.20	352	720	1.0	ND
	03/14/03	7.08	1620	1.60	NM	-112.00	20.88	310	165	2.2	0.1
	06/05/03	6.44	1860	ND	NM	NM	24.66	228	195	2.2	0.3
	09/03/03	6.25	1480	0.03	NM	-132.00	27.94	245	160	2.0	0.3
	12/11/03	6.47	1070	0.40	0.6	-258.00	23.85	218	190	1.0	1.0
	03/18/04	6.80	123	NM	ND	-111.00	20.09	231	190	1.4	0.7
	06/08/04	5.73	855	0.16	3.0	-145.00	25.17	154	95	4.8	ND
	09/21/04	7.06	142	0.03	ND	-153.00	26.76	157	130	3.8	2.0
	12/01/04	6.45	2454	0.06	ND	-215.20	25.63	88	100	0.6	5.0
	03/13/05	5.92	2547	0.07	ND	-181.60	22.86	207	60	2.2	1.0
	06/09/05	6.14	2530	0.59	ND	-199.90	24.39	127	55	5.0	0.5
	09/06/05	6.68	3436	0.04	ND	-295.10	27.26	184	90	3.8	1.0
	09/21/05	6.61	2954	0.49	NM	-125.00	26.67	NM	NM	NM	NM
	12/06/05	6.41	1839	0.33	ND	-25.00	24.31	175	65	3.0	0.1
	03/30/06	5.84	3300	0.24	ND	-10.00	24.29	167	60	5.2	ND
	06/09/06	4.75	994	0.66	ND	-47.90	25.94	67	60	4.4	0.1
	09/25/06	5.81	1175	0.39	ND	-85.10	26.25	237	75	4.0	0.7
	12/08/06	6.02	1232	0.73	ND	-9.50	23.77	162	50	2.4	2.0
	03/01/07	5.17	841	0.41	ND	-7.70	22.96	229	40	4.2	0.7
	06/15/07	5.90	244	0.23	ND	28.10	25.33	332	5	2.0	0.5
	09/12/07	6.21	551	0.41	ND	-56.40	27.80	148	105	3.4	ND
	12/05/07	6.18	1147	0.38	ND	4.70	25.23	189	ND	ND	0.1
	03/06/08	5.92	358	0.34	ND	28.00	22.40	260	60	1.2	0.1
	06/17/08	5.87	478	0.69	ND	-37.70	25.13	297	125	0.8	0.2
	09/16/08	6.46	567	0.12	ND	-77.30	27.06	Interference	400	0.0	0.3
	12/18/08	6.39	655	0.60	0.3	0.40	23.75	70	50	0.4	0.2
CEF-046-03S	12/06/05	7.38	2078	0.16	ND	-106.90	25.11	108	325	ND	5.0
CEF-046-04S	12/06/05	6.11	728	0.36	ND	-57.10	25.04	167	20	3.8	5.0
CEF-046-05I	12/21/00	5.60	140	1.10	NM	NM	23.20	183	100	1.8	1.0
	03/14/03	3.54	5810	2.05	NM	393.00	25.23	ND	ND	4.2	ND
	06/05/03	2.00	4840	0.23	NM	407.00	26.92	Interference	ND	9.9	ND
	09/03/03	2.74	4450	0.04	NM	320.00	27.29	Interference	ND	10.0	ND
	12/11/03	2.84	4480	4.01	ND	331.00	22.90	568	ND	6.0	ND
	03/18/04	2.48	4074	NM	ND	NM	25.00	172	ND	4.2	ND
	06/08/04	2.28	5216	0.10	15.0	503.60	27.25	93	ND	15.0	ND
	09/21/04	6.04	103	0.05	ND	-61.80	26.85	171	5	4.8	0.1
	12/01/04	4.48	638	0.23	ND	267.70	26.86	Interference	ND	7.2	0.1
	03/13/05	4.21	2300	0.00	ND	283.00	27.41	579	ND	9.2	ND
	06/09/05	2.71	5151	0.06	ND	319.90	29.89	390	ND	10.0	ND
	09/06/05	2.91	946	0.18	ND	513.50	26.98	145	ND	3.8	ND
	12/06/05	2.62	4721	2.15	ND	554.10	24.95	94	ND	ND	ND
	03/29/06	2.36	3174	0.21	ND	418.90	25.71	478	ND	4.8	ND
	06/09/06	2.69	4061	0.67	ND	406.40	29.66	535	ND	6.0	0.1
	09/24/06	2.91	3865	0.24	ND	361.70	28.12	Interference	5	9.8	ND
	12/08/06	2.66	12471	1.50	ND	353.30	21.20	Interference	ND	5.0	1.0
	03/01/07	3.21	463	1.10	ND	536.50	23.61	102	5	0.6	ND
	06/15/07	1.31	660	0.83	ND	566.00	27.51	460	ND	3.0	0.1
	09/12/07	2.92	2156	1.24	ND	339.50	27.99	Interference	ND	6.0	0.3
	12/05/07	3.03	3368	2.35	1.5	328.10	26.00	Interference	ND	5.0	ND
	03/06/08	2.86	327	0.84	ND	57.60	24.82	99	ND	1.2	ND
	06/17/08	3.85	298	0.32	ND	68.80	27.32	116	5	3.6	0.1
	09/16/08	3.54	499	0.38	ND	218.70	25.91	Interference	0	9.2	0.1
	12/18/08	2.90	850	2.13	2.0	238.00	25.80	400	0	0.0	0.0

TABLE 2
FIELD AND NATURAL ATTENUATION PARAMETERS

Building 46
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	Field Parameters						Natural Attenuation Parameters			
		pH (SU)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)*		Oxidation - Reduction Potential (mV)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
				Meter	CHEMetrics						
CEF-046-06D	12/21/00	9.71	180	6.51	NM	NM	23.50	8	120	0.4	0.3
	03/14/03	3.23	8600	2.64	NM	404.00	25.71	ND	ND	4.2	ND
	06/09/03	2.69	9740	0.09	NM	77.00	27.97	Interference	ND	7.0	ND
	09/03/03	2.70	8759	0.37	NM	335.00	27.71	Interference	ND	10.0	ND
	12/10/03	2.62	790	ND	0.8	376.00	23.95	Interference	ND	5.4	ND
	03/16/04	2.53	746	6.00	ND	NM	24.60	263	ND	ND	3.0
	06/08/04	2.42	8973	0.09	15.0	431.60	26.46	Interference	ND	9.8	ND
	09/21/04	2.37	10411	0.23	ND	434.30	26.45	109	ND	9.8	0.1
	12/01/04	2.59	18791	0.15	ND	437.10	27.16	118	ND	7.6	0.1
	03/13/05	2.44	9000	0.14	ND	414.00	26.45	176	ND	10.0	ND
	06/09/05	2.49	8012	0.15	ND	431.90	26.79	Interference	ND	10.0	ND
	09/06/05	2.48	7592	0.99	ND	608.90	28.41	154	ND	4.2	0.1
	12/06/05	2.52	10154	5.44	ND	515.70	25.87	99	ND	10.0	ND
	03/29/06	2.21	9429	1.82	1.8	598.90	26.23	241	200	4.6	ND
	06/09/06	2.49	8276	0.71	ND	564.50	28.89	128	ND	2.5	0.1
	09/24/06	2.56	8092	0.33	ND	508.10	28.70	Interference	60	10.0	ND
	12/08/06	2.42	9589	4.80	3.2	344.60	19.58	Interference	ND	4.4	ND
	03/01/07	2.50	10085	0.51	ND	633.90	24.74	Interference	100	0.6	ND
	06/15/07	1.88	8965	0.45	ND	532.80	27.37	Interference	ND	1.0	0.1
	09/12/07	2.43	10362	0.71	ND	408.80	28.74	239	ND	9.5	ND
	12/05/07	2.48	16340	2.07	1.75	408.50	25.88	Interference	ND	5.5	ND
	03/06/08	2.38	10573	0.59	ND	439.70	21.74	Interference	ND	4.2	ND
	06/17/08	2.51	11134	0.98	ND	409.20	22.24	Interference	ND	10.0+	ND
	09/16/08	3.08	4656	0.37	ND	419.70	23.55	Interference	50	28.0	0.3
	12/18/08	2.30	8289	3.68	2.0	432.00	28.31	Interference	0	10+	0.0
CEF-046-07I	12/21/00	4.90	510	1.11	NM	NM	25.40	317	60	0.6	0.3
	03/14/03	3.23	250	5.24	NM	360.00	23.41	121	ND	1.8	ND
	06/09/03	3.80	191	1.05	NM	278.00	26.12	233	ND	2.2	ND
	09/03/03	4.51	226	0.12	NM	81.00	27.32	143	ND	4.0	2.0
	12/11/03	5.19	180	0.67	ND	-170.00	23.07	70	25	3.7	2.0
	03/18/04	4.89	230	NM	ND	120.00	24.42	75	15	4.0	ND
	06/08/04	3.67	89	0.24	ND	256.00	25.91	99	ND	4.4	ND
	09/21/04	3.55	85	0.00	ND	163.00	26.80	68	5	10.0	ND
	12/01/04	5.62	175	0.06	ND	-50.60	26.45	217	10	5.8	1.0
	03/13/05	4.90	130	0.12	ND	-79.20	25.78	122	35	4.0	2.0
	06/09/05	4.04	439	0.67	ND	-39.50	26.99	148	ND	3.8	2.0
	09/06/05	3.65	461	0.15	ND	253.60	26.26	140	ND	4.6	0.1
	12/06/05	3.90	188	0.40	ND	258.30	23.64	113	ND	3.0	0.1
	03/30/06	4.40	244	0.38	ND	120.70	23.92	128	20	5.0	0.1
	06/09/06	2.04	126	0.68	ND	37.20	25.43	176	70	5.8	0.7
	09/25/06	4.84	108	0.25	ND	3.40	25.61	105	15	4.8	2.0
	12/08/06	3.39	485	2.30	4.2	468.20	23.41	181	ND	0.1	ND
	03/01/07	4.63	134	0.35	ND	-3.20	24.18	108	65	3.2	0.7
	06/15/07	4.83	98	0.20	ND	-69.60	26.19	176	ND	2.4	1.0
	09/12/07	4.92	83	0.57	ND	-41.90	28.28	98	5	3.5	2.0
	12/05/07	4.95	112	0.50	ND	-11.70	25.66	148	ND	2.0	2.0
	03/06/08	4.50	75	0.45	ND	-70.10	23.89	113	4	3.4	1.0
	06/17/08	4.02	63	0.60	ND	-64.20	24.81	145	15	2.6	1.0
	09/16/08	4.61	31	0.13	ND	-70.20	26.41	150	20	2.6	2.0
	12/18/08	4.37	58	0.40	0.3	68.00	23.98	1000+	1000+	0.2	2.0
CEF-046-08I	12/06/05	4.89	76	0.59	ND	80.80	25.87	Interference	15	3.0	ND
CEF-046-09I	12/20/00	5.29	79	1.47	NM	NM	24.60	84.6	20	0.8	0.3
	03/14/03	5.47	914	1.35	NM	64.00	25.40	ND	ND	2.2	1.0
	06/04/03	4.75	1090	0.60	NM	-8.00	25.73	Interference	ND	6.0	1.0
	09/03/03	3.74	1040	0.84	NM	18.00	26.85	Interference	ND	3.8	1.0
	12/10/03	3.64	1010	6.21	ND	-100.00	26.29	Interference	ND	5.2	0.5
	03/16/04	3.67	165	NM	ND	199.00	25.08	Interference	ND	2.8	2.0
	06/08/04	3.58	1770	0.14	3.0	68.00	25.99	Interference	ND	8.0	5.0
	09/21/04	3.50	1401	0.17	ND	-18.20	25.99	Interference	ND	8.4	3.0
	12/01/04	3.68	NM	0.11	ND	-74.80	26.09	370	ND	4.5	3.0
	03/13/05	5.92	540	0.00	ND	72.00	25.01	296	ND	5.4	1.0
	06/09/05	3.76	830	0.14	ND	-29.30	26.31	201	ND	3.6	2.0
	09/06/05	3.74	641	0.18	ND	-39.70	28.43	352	ND	3.5	5.0
	12/06/05	3.76	1055	0.24	ND	225.80	25.47	Interference	ND	3.0	5.0
	03/30/06	3.96	20384	0.37	ND	-34.40	24.92	Interference	ND	5.0	2.0
	06/09/06	2.86	756	0.33	ND	177.80	29.25	Interference	ND	7.0	2.0
	09/24/06	3.70	661	0.17	ND	218.80	29.13	413	5	7.2	0.1
	12/08/06	3.81	493	0.38	ND	-43.60	24.24	Interference	ND	ND	2.0
	03/01/07	3.80	390	0.33	ND	44.90	24.03	257	ND	3.6	2.0
	06/15/07	3.07	528	0.20	ND	62.20	26.36	Interference	ND	3.1	1.0
	09/12/07	3.93	236	1.48	ND	58.60	27.37	212	ND	3.4	1.0
	12/05/07	4.42	279	0.45	ND	14.60	25.43	323	ND	2.8	1.0
	03/06/08	3.45	296	0.23	ND	-41.80	25.75	487	ND	2.0	ND
	06/17/08	4.02	146	0.96	ND	-39.10	25.87	400	15	3.2	5.0
	09/16/08	4.06	64	0.50	ND	63.10	27.80	380	5	4.0	5.0
	12/18/08	4.45	109	0.99	0.1	-14.00	25.91	95	0	3.0	0.6

TABLE 2
FIELD AND NATURAL ATTENUATION PARAMETERS

Building 46
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	Field Parameters						Natural Attenuation Parameters			
		pH (SU)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)*		Oxidation - Reduction Potential (mV)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
				Meter	CHEMetrics						
CEF-046-10I	12/06/05	5.68	119	0.50	ND	33.20	23.89	99	15	2.0	1.0
CEF-046-11I	12/06/05	6.44	406	0.63	ND	-46.20	23.45	134	85	2.0	5.0
CEF-046-12I	12/20/00	5.57	160	1.91	NM	NM	26.50	193.6	80	0.8	2.0
	03/14/03	3.38	178	3.92	NM	333.00	26.07	96	ND	2.2	ND
	06/05/03	4.22	155	1.65	NM	117.00	26.33	168	ND	1.0	ND
	09/03/03	4.71	308	0.00	NM	164.00	27.88	136	5	0.0	ND
	12/11/03	4.97	310	0.61	0.8	129.00	23.96	84	1	2.2	0.1
	03/18/04	5.33	129	0.60	0.6	NM	24.90	86	5	3.5	0.1
	06/08/04	4.69	142	0.47	13.0	162.00	26.48	122	5	3.0	ND
	09/21/04	4.65	245	0.01	ND	124.00	24.84	115	5	3.0	ND
	12/01/04	5.30	661	0.12	ND	133.40	26.37	45	5	1.4	ND
	03/13/05	5.12	384	0.12	ND	120.10	24.02	220	25	1.0	ND
	06/09/05	5.13	412	0.97	ND	121.10	25.29	217	25	1.8	ND
	09/06/05	5.06	417	0.22	ND	4.20	26.82	306	20	2.8	0.1
	12/06/05	4.79	185	0.50	ND	170.40	22.70	273	ND	4.8	ND
	03/29/06	4.54	234	0.42	ND	66.50	24.92	253	25	2.8	0.3
	06/09/06	3.73	203	0.59	ND	216.8	26.76	246	15	5.2	0.1
	09/25/06	3.93	222	0.60	ND	-49.8	25.73	443	15	3.2	0.1
	12/08/06	4.39	236	1.04	ND	266.5	23.65	296	ND	4.5	0.1
	03/01/07	4.33	227	0.30	ND	106.5	23.43	247	ND	3.2	0.1
	06/15/07	3.53	188	0.43	ND	126.6	24.87	379	ND	2.4	0.1
	09/12/07	4.55	183	0.55	ND	182.0	28.00	227	5	2.8	ND
	12/05/07	4.74	298	0.46	ND	28.4	25.33	367	ND	3.0	0.1
	03/06/08	3.96	243	0.23	ND	6.1	22.97	425	ND	1.8	0.1
	06/17/08	4.71	176	0.07	ND	65.9	26.58	398	10	3.4	0.1
	09/16/08	4.45	108	0.21	ND	-57.3	26.55	392	20	2.8	0.1
	12/18/08	4.24	159	2.96	0.2	142.0	23.60	50	0	2.0	0.2
CEF-046-13I	12/20/00	5.40	120	1.23	NM	NM	25.00	188	20	1.4	5.0
	03/14/03	6.29	110	0.99	NM	-31.00	25.90	280	ND	2.5	5.0
	06/05/03	3.71	643	0.00	NM	1.00	26.44	Interference	ND	3.6	5.0
	09/03/03	3.81	999	0.36	NM	57.00	28.50	Interference	ND	2.4	2.0
	12/11/03	3.93	990	1.11	ND	160.00	24.10	Interference	ND	3.2	5.0
	03/18/04	3.76	1282	0.50	ND	NM	25.60	Interference	ND	3.0	0.3
	06/08/04	3.08	1170	0.34	1.0	286.00	26.73	Interference	ND	3.6	ND
	09/21/04	4.96	588	0.17	ND	-32.00	26.20	Interference	ND	7.8	5.0
	12/01/04	3.93	931	0.06	ND	37.70	26.53	Interference	ND	0.7	5.0
	03/13/05	2.92	947	0.75	ND	494.30	24.67	Interference	ND	2.8	1.0
	06/09/05	2.98	1584	0.71	ND	361.30	25.97	Interference	ND	4.0	0.7
	09/06/05	3.84	1698	0.84	ND	-90.00	26.30	Interference	ND	4.1	1.0
	12/06/05	3.55	568	0.47	ND	257.70	22.63	167	ND	3.0	2.0
	03/29/06	2.48	538	0.63	ND	571.60	24.98	246	ND	3.4	0.1
	06/09/06	3.04	205	0.26	ND	125.10	27.12	58	ND	10.0	2.0
	09/25/06	3.86	154	0.47	ND	-42.30	26.38	395	ND	5.4	0.1
	12/08/06	4.07	146	1.03	ND	121.60	23.00	242	ND	3.5	2.0
	03/01/07	3.90	174	2.18	1.0	187.50	23.81	158	ND	0.8	0.1
	06/15/07	3.94	149	0.33	ND	290.70	25.18	213	ND	1.2	0.1
	09/12/07	4.32	124	0.33	ND	-25.10	28.40	209	5	3.5	0.7
	12/05/07	4.52	203	0.46	ND	15.00	25.75	349	ND	3.4	0.1
	03/06/08	3.42	194	2.78	1.8	62.70	24.01	230	ND	2.4	ND
	06/17/08	4.35	124	0.74	ND	-62.80	27.98	352	15	2.5	5.0
	09/16/08	4.46	77	0.17	ND	-125.20	26.34	267	20	1.6	1.0
	12/18/08	3.64	171	0.29	0.1	-210.00	25.08	300	0	2.0	0.4
CEF-046-14D	12/20/00	5.87	109	1.52	NM	NM	24.90	84	540	2.4	0.3
	03/14/03	6.26	98	0.85	NM	-33.00	25.32	180	15	2.5	5.0
	06/04/03	5.77	106	0.17	NM	-39.00	26.14	186	20	2.3	2.0
	09/03/03	4.82	215	0.86	NM	-54.00	27.66	155	20	2.2	5.0
	12/10/03	5.36	282	0.07	ND	-62.00	25.92	136	10	2.4	1.0
	03/16/04	5.43	105	0.80	ND	NM	25.60	154	20	24.0	5.0
	06/08/04	5.17	109	0.10	NM	-58.90	26.00	NM	NM	NM	NM
	09/21/04	5.26	125	0.16	ND	-159.20	25.37	120	15	4.8	3.0
	12/01/04	5.51	239	0.42	ND	-174.00	25.41	176	25	2.4	0.1
	03/13/05	7.68	110	0.20	ND	-29.00	22.89	109	25	3.8	2.0
	06/09/05	5.38	156	0.25	ND	-64.40	25.86	94	15	1.5	0.1
	09/06/05	5.33	108	0.25	ND	-169.70	26.70	109	15	3.5	1.0
	12/06/05	5.22	127	ND	ND	-28.60	22.36	185	ND	2.6	2.0
	03/29/06	3.67	106	0.51	ND	192.00	24.43	160	15	4.8	0.3
	06/09/06	4.02	93	0.52	ND	25.10	29.19	93	10	2.6	0.1
	09/24/06	3.34	95	0.49	ND	148.90	28.48	252	40	3.0	0.3
	12/08/06	5.45	103	0.38	ND	-109.40	23.46	Interference	45	1.0	0.7
	03/01/07	5.39	109	0.32	ND	-16.00	23.42	217	ND	1.8	0.3
	06/15/07	5.28	89	0.28	ND	-46.60	26.29	159	1	1.2	0.1
	09/12/07	5.46	90	1.21	1.0	-21.60	26.65	109	25	3.4	0.1
	12/05/07	5.77	135	0.58	ND	15.20	22.79	117	ND	2.0	0.1
	03/06/08	5.08	122	0.30	ND	-54.30	24.57	169	20	1.8	0.1
	06/17/08	5.16	82	0.75	ND	-59.60	28.71	115	30	2.0	0.7
	09/16/08	3.91	42	0.64	ND	21.50	26.82	132	14	4.6	1.0
	12/18/08	5.31	87	2.98	0.1	112.00	23.74	40	0	2.0	0.4

TABLE 2
FIELD AND NATURAL ATTENUATION PARAMETERS

Building 46
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	Field Parameters						Natural Attenuation Parameters			
		pH (SU)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)* Meter	Dissolved Oxygen (mg/L)* CHEMetrics	Oxidation - Reduction Potential (mV)	Temperature (°C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
	12/20/00	5.01	108	1.27	NM	NM	22.20	86.6	40	3.2	1.0
	03/13/03	4.64	191	0.90	NM	328.00	22.79	343	ND	3.2	ND
	06/04/03	1.76	172	0.59	NM	92.00	22.89	368	10	3.3	ND
	09/03/03	3.99	369	0.45	NM	195.00	24.16	367	ND	2.8	ND
	12/10/03	4.00	290	6.16	5.0	99.00	23.64	124	1	3.5	0.1
	03/16/04	4.30	501	NM	ND	241.00	22.91	324	ND	3.0	ND
	06/08/04	4.26	168	0.22	3.0	193.30	22.89	317	15	3.8	ND
	09/21/04	4.25	179	0.27	ND	-55.00	23.27	319	ND	3.5	ND
	12/01/04	4.42	347	0.19	ND	-91.40	23.69	143	15	3.4	0.1
	03/13/05	4.47	180	2.07	1.0	256.00	22.05	291	ND	ND	ND
	06/09/05	4.16	244	0.19	ND	-51.00	22.93	312	10	4.8	ND
	09/06/05	4.32	138	0.66	ND	-101.60	23.90	219	ND	2.5	3.0
CEF-046-15I	12/06/05	4.66	180	0.76	ND	86.00	20.99	155	15	2.0	0.7
	03/30/06	4.54	2820	0.55	ND	23.20	22.20	234	15	4.8	0.1
	06/09/06	3.10	146	0.45	ND	138.80	24.19	241	20	5.4	0.5
	09/24/06	3.07	142	0.29	ND	192.90	24.45	253	5	6.4	ND
	12/08/06	4.54	150	0.54	ND	-2.00	20.88	296	ND	2.2	0.1
	03/01/07	4.47	151	0.38	ND	82.90	21.21	296	ND	2.6	0.3
	06/15/07	3.03	118	0.40	ND	88.10	22.42	431	ND	3.0	0.7
	09/12/07	4.64	111	1.94	1.0	25.30	23.42	236	2	4.2	1.0
	12/05/07	4.62	187	1.12	ND	30.10	19.51	232	ND	3.0	0.3
	03/06/08	3.99	155	0.39	ND	-37.80	20.65	280	ND	2.0	1.0
	06/17/08	4.70	107	0.09	ND	45.70	23.77	291	10	3.2	2.0
	09/16/08	4.05	700	0.58	ND	92.30	24.64	302	10	2.8	2.0
	12/18/08	3.53	125	0.44	0.1	-197.00	22.90	200	0	3.0	0.0
CEF-046-16I	12/06/05	4.87	148	0.90	ND	44.90	20.67	241	20	2.5	5.0
CEF-046-17D	12/06/05	4.44	1904	0.61	ND	53.50	20.08	Interference	ND	3.5	3.0
CEF-046-18I	12/07/05	3.80	856	0.99	ND	318.80	23.56	0.186	ND	9.0	0.1
CEF-046-19I	12/07/05	2.58	5885	0.77	ND	476.90	22.01	Interference	ND	3.6	5.0
CEF-046-20I	12/07/05	3.84	1054	0.95	ND	324.00	23.14	241	ND	9.0	0.1
	12/20/00	4.86	47	1.35	NM	NM	23.20	9.4	60	0.8	ND
	03/13/03	3.75	713	2.35	NM	397.00	23.94	0.0	ND	3.0	ND
	06/05/03	3.12	798	0.00	NM	251.00	24.22	Interference	ND	3.9	0.7
	09/03/03	3.34	406	2.82	NM	449.00	26.30	115	ND	1.6	ND
	12/11/03	3.58	476	3.43	2.0	407.00	23.07	89	ND	1.6	ND
	03/18/04	3.81	162	2.10	1.0	NM	23.00	91	ND	2.4	ND
	06/08/04	3.39	147	0.86	13.0	406.00	23.91	78	ND	1.4	ND
	09/21/04	2.61	147	0.44	ND	317.00	24.62	69	ND	0.8	ND
	12/01/04	3.89	334	2.30	ND	439.10	24.76	54	ND	0.3	ND
	03/13/05	3.66	175	0.10	0.10	311.20	23.58	112	ND	0.8	ND
	06/09/05	3.61	114	1.21	0.00	319.00	23.57	45	5	1.4	ND
	09/06/05	4.22	103	0.26	ND	79.30	25.31	75	5	1.0	ND
CEF-046-21I	12/07/05	4.36	218	2.03	3.60	219.80	23.24	35	ND	4.5	3.0
	03/29/06	3.54	72	0.43	ND	83.90	23.97	31	10	1.0	0.3
	06/09/06	3.70	56	0.15	NM	209.70	25.52	NM	NM	NM	NM
	09/24/06	3.83	95	0.47	ND	-45.30	25.78	156	20	2.4	0.1
	12/08/06	3.99	121	0.57	ND	284.10	20.08	140	5	1.8	0.1
	03/01/07	3.15	136	0.49	ND	126.40	22.41	142	ND	0.8	0.5
	06/15/07	3.23	159	0.51	ND	650.00	26.36	Interference	ND	3.6	0.1
	09/12/07	4.42	139	0.58	ND	167.60	25.28	199	5	3.2	ND
	12/05/07	4.35	238	2.42	2.00	221.10	23.16	171	ND	2.8	0.1
	03/06/08	3.98	176	0.66	ND	389.50	20.92	98	ND	1.8	0.1
	06/17/08	4.29	194	0.10	ND	58.10	23.85	253	15	4.2	1.0
	9/16/08`	4.03	103	0.53	ND	140.10	26.42	249	5	3.6	0.0
	12/18/08	3.84	179	0.27	0.30	-210.00	23.51	70	0	7.0	0.0
CEF-046-22I	12/07/05	3.70	4124	1.03	ND	153.30	22.84	95	ND	10.00	5.00
CEF-046-23D	12/07/05	2.44	21506	1.23	ND	438.80	24.49	86	ND	8.50	0.10
	12/20/00	6.15	129	0.13	NM	NM	21.90	16.4	60	2.3	0.1
	03/14/03	3.70	2530	2.23	NM	402.00	27.46	ND	ND	4.0	ND
	06/05/03	0.36	3160	0.36	NM	250.00	28.22	Interference	ND	5.9	ND
	09/03/03	3.20	2110	0.21	NM	282.00	27.68	Interference	ND	5.4	ND
	12/10/03	3.24	200	0.30	ND	308.00	26.18	Interference	ND	3.8	ND
	03/16/04	3.45	1285	0.60	ND	NM	27.60	Interference	ND	4.2	0.1
	06/08/04	3.09	1564	0.20	ND	386.40	27.04	Interference	ND	7.2	0.1
	09/21/04	3.74	1218	0.44	ND	17.20	26.06	Interference	ND	9.6	0.3
	12/01/04	3.74	2133	0.33	ND	211.60	24.52	Interference	ND	8.5	0.3
	03/13/05	6.16	1200	0.12	ND	58.00	25.70	Interference	5	7.4	1.0
	06/09/05	4.26	4395	0.06	ND	106.40	26.31	Interference	5	10.0	0.5
	09/06/05	4.12	2946	0.17	ND	161.20	26.94	Interference	ND	9.0	1.0
CEF-046-24D	12/07/05	4.38	8358	0.96	0.96	207.30	23.42	72	ND	5.2	0.3
	03/29/06	4.34	3362	0.46	ND	97.90	24.67	Interference	5	5.2	ND
	06/09/06	3.66	2810	0.41	ND	212.10	26.11	Interference	ND	10.0	0.1
	09/24/06	4.09	2319	0.50	ND	20.40	26.75	Interference	ND	5.0	0.1
	12/08/06	3.48	1664	0.43	ND	265.90	21.23	Interference	ND	3.1	0.1
	03/01/07	3.24	1353	0.42	ND	180.70	23.24	Interference	ND	4.2	0.1
	06/15/07	4.05	1017	0.61	ND	182.70	25.46	Interference	ND	4.0	0.1
	09/12/07	4.69	762	0.94	ND	123.10	26.54	Interference	5	3.6	ND
	12/05/07	4.81	1093	2.45	2.30	21.70	23.96	Interference	40	2.5	ND
	03/06/08	3.44	771	0.54	ND	286.70	23.36	Interference	ND	2.2	0.5
	06/17/08	3.82	730	0.11	ND	77.70	25.01	Interference	10	3.0	0.7
	09/16/08	4.76	484	0.22	ND	42.10	25.20	Interference	10	19.0	0.3
	12/18/08	2.19	1108	1.17	0.0	40.30	24.76	300	0	10+	0.0

TABLE 2
FIELD AND NATURAL ATTENUATION PARAMETERS

Building 46
NAS Cecil Field
Jacksonville, Florida

Well ID	Sample Date	Field Parameters						Natural Attenuation Parameters			
		pH (SU)	Conductivity (µS/cm)	Dissolved Oxygen (mg/L)*		Oxidation - Reduction Potential (mV)	Temperature (^{o}C)	Carbon Dioxide (mg/L)	Alkalinity as $CaCO_3$ (mg/L)	Ferrous Iron (mg/L)	Hydrogen Sulfide (mg/L)
				Meter	CHEMetrics						
CEF-046-25I	12/20/00	5.81	167	2.88	NM	NM	24.60	20.6	120	0.6	5.0
	03/13/03	6.16	1420	1.03	NM	-58.00	25.35	ND	ND	4.5	5.0
	06/04/03	5.98	1440	0.00	NM	-87.00	25.76	ND	ND	6.0	5.0
	09/03/03	3.77	910	0.53	NM	-107.00	26.43	Interference	ND	3.8	5.0
	12/10/03	3.95	860	5.82	ND	-198.00	24.15	Interference	ND	3.5	5.0
	03/16/04	3.74	179	NM	ND	-2.00	23.99	Interference	ND	5.4	5.0
	06/08/04	3.53	2054	0.13	ND	-92.90	25.15	Interference	ND	6.2	5.0
	09/21/04	3.66	1736	0.41	ND	-97.40	24.31	Interference	ND	NM	2.0
	12/01/04	3.72	3586	0.08	ND	-153.10	24.20	Interference	ND	7.8	5.0
	03/13/05	6.67	800	0.19	ND	8.00	22.96	Interference	ND	12.0	5.0
	06/09/05	3.74	1429	0.13	ND	-111.30	24.71	Interference	ND	9.8	5.0
	09/06/05	3.44	871	0.14	ND	-96.00	25.26	Interference	ND	9.5	5.0
	12/07/05	3.96	2015	1.03	ND	140.40	21.84	58	ND	7.0	5.0
	03/29/06	4.05	340	0.43	ND	121.40	23.78	Interference	5	5.0	5.0
	06/09/06	3.52	235	0.33	NM	-28.40	24.84	NM	NM	NM	NM
	09/24/06	3.86	201	0.47	ND	-85.30	25.71	316	ND	3.4	5.0
	12/08/06	3.85	299	0.84	ND	75.90	20.23	Interference	ND	3.4	5.0
	03/01/07	3.29	214	0.42	ND	-44.40	22.33	Interference	ND	3.2	2.0
	06/15/07	4.21	199	0.72	ND	-76.30	24.37	Interference	ND	3.2	5.0
	09/12/07	4.39	138	0.96	ND	-27.60	25.80	134	2	2.6	5.0
	12/05/07	4.39	192	1.93	1.6	-142.00	20.51	Interference	ND	2.0	2.0
	03/06/08	4.24	98	0.41	ND	-81.80	21.75	141	ND	2.6	5.0
	06/17/08	4.71	1045	0.07	ND	33.50	24.79	211	15	2.4	5.0
	09/16/08	4.46	34	0.44	ND	4.30	25.94	2.39	10	5.6	5.0
	12/17/08	3.97	66	0.26	0.1	-188.00	22.69	70	Interference	4.0	3.0
CEF-046-26I	12/20/00	8.53	99	0.03	NM	NM	23.10	24.2	NM	1.4	NM
	03/14/03	6.34	63	4.66	NM	3.00	26.88	ND	ND	4.6	5.0
	06/05/03	3.31	2880	0.00	NM	-2.00	24.60	Interference	ND	9.0	5.0
	09/03/03	3.40	1990	0.12	NM	111.00	25.14	Interference	ND	7.8	5.0
	12/11/03	3.52	224	0.00	ND	151.00	22.18	Interference	ND	3.0	5.0
	03/18/04	3.51	268	NM	ND	203.00	22.45	Interference	ND	5.0	5.0
	06/08/04	2.43	3460	0.32	4.0	284.00	24.34	Interference	ND	4.0	1.0
	09/21/04	3.69	280	0.00	ND	91.00	23.88	Interference	ND	10.0	5.0
	12/01/04	2.62	6045	0.11	ND	371.60	23.43	Interference	ND	3.33	5.0
	03/13/05	2.90	5353	0.12	ND	250.30	24.33	Interference	ND	10.0	2.0
	06/09/05	2.54	6025	0.82	ND	297.10	24.22	Interference	ND	10.0	5.0
	09/06/05	3.40	5927	0.06	ND	74.90	24.57	Interference	ND	6.2	3.0
	12/07/05	3.50	6642	0.43	ND	225.50	22.19	Interference	ND	8.0	5.0
	03/29/06	2.84	3147	0.46	ND	498.40	23.82	Interference	ND	8.0	ND
	06/09/06	2.72	2493	0.23	ND	281.80	24.46	Interference	ND	9.2	5.0
	09/24/06	3.78	1952	0.42	ND	-63.80	26.59	Interference	ND	8.2	2.0
	12/08/06	3.24	1682	0.69	ND	100.60	20.74	Interference	ND	4.5	5.0
	03/01/07	2.32	1746	0.58	ND	280.60	22.32	Interference	ND	4.8	0.1
	06/15/07	3.77	2088	0.56	ND	22.40	24.77	Interference	ND	6.6	2.0
	09/12/07	3.41	1769	0.47	ND	37.40	26.15	Interference	ND	2.8	2.0
	12/05/07	3.40	2466	3.34	ND	2.00	24.43	Interference	ND	4.4	5.0
	03/06/08	3.40	1314	0.38	ND	21.30	21.99	Interference	ND	3.6	5.0
	06/17/08	3.56	811	0.72	ND	-2.50	24.35	Interference	5	6.6	5.0
	09/16/08	3.79	327	0.16	ND	-54.80	24.92	Interference	5	9.0	2.0
	12/17/08	4.12	648	1.54	0.05	-2.00	24.01	350	0	10+	1.0
CEF-046-27D	12/07/05	7.67	1491	1.08	ND	-79.40	22.38	169	280	5.0	ND
CEF-046-28I	12/07/05	4.00	5614	0.53	ND	84.50	21.24	Interference	ND	4.8	5.0
CEF-046-29I	12/07/05	3.52	7275	0.53	ND	152.90	21.24	Interference	ND	7.0	5.0
CEF-046-30I	12/07/05	3.64	4614	0.29	ND	-3.20	21.97	Interference	ND	10.0	5.0
CEF-046-31I	12/07/05	3.68	6551	0.44	ND	71.60	21.08	Interference	ND	10.0	5.0

NOTES:
SU - Standard units
µS/cm - microsiemens per centimeter
mV - millivolts
mg/L - milligrams per liter
NM - not measured
ND - not detected
***Well went dry after pumping 0.7 gallons, final readings not obtained.

TABLE 3
LABORATORY ANALYTICAL RESULTS

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well	Date	Benzene	Ethylbenzene	Toluene	Xylenes (Total)	Methyl-*tert*-butyl-ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Sulfate (mg/L)	TRPH
GCTL (µg/L)		1	30	40	20	20	14	28	28	250 *	5000
NADSC (µg/L)		100	300	400	200	200	140	280	280	N/A	50000
CEF-046-01S	12/21/00	13000	2900	40000	19000	NM	550	NM	NM	NM	23000
	01/25/01	0.28	0.44	1.4	3.2	<1.0	<1.0	NM	NM	NM	290
	03/14/03	592.0	1160.0	1190.0	4580.0	619	496	<4.0	<4.0	NM	77000
	06/09/03	262.0	626.0	318.0	1070.0	511	947	136	162	NM	33200
	09/03/03	350.0	735.0	575.0	2920.0	365	661	133	126	NM	38300
	12/11/03	430.0	982.0	1410.0	3540.0	432	501	89	117	NM	39600
	03/18/04	401.0	741.0	1160.0	2280.0	486	508	61.5	98.5	NM	16200
	06/08/04	163.0	484.0	194.0	526.0	310	342	36.6	76.5	NM	15400
	09/21/04	54.8Y	321Y	97.4Y	2140Y	276Y	252 J3Y	24.2 J3Y	64.2 J3Y	NM	33300Y
	12/01/04	153.0	601.5	163.9	779.0	216.1	621.4	65.6	143	NM	25200
	03/13/05	174.0	687.0	152.0	1100.0	334	503	56.9	94.5	NM	23000
	06/09/05	263.0	767.0	308.0	1330.0	270	316	51.3	73.0	109	41100
	09/06/05	127.0	664.0	169.0	2520.0	133	897	52.6	188	97.9	51000
	12/06/05	85.9	627.0	95.8	1410.0	644	709	20.9I	108	42.8	35500
	03/29/06	15.2	205.0	36.2	458.0	267	544	65.8	119	4.37	35300
	06/09/06	21.9	259.0	118.0	698.0	187	322	36.7	78	24.5	17100
	09/24/06	31.6	359.0	57.1	1320.0	140	502	76.9	111	63.0	12300
	12/09/06	12.8	131.0	37.3	194.0	23.1	187	32.2	53	11000	4130
	03/01/07	12.0	107.0	11.4	363.0	104	17.7	64.8	50.1	2090	6770
	06/15/07	34.0	159.0	9.8	391.0	150	163	30.7	49.6	1250	7430
	09/21/07	145.0	173.0	5.1	292.0	142	319	73.4	84.9	1080 MHA	11200V
	12/05/07	78.4	230.0	3.8	304.0	77.3	471	107	103.0	3270	52700
	03/06/08	63.0	199	3.09	207	97.1	337	65.1	89.0	946	36500
	06/18/08	75.9 J4	194 J4	2.61	117 J4	78.4 J4	185	22.2	32.6	469	39600 B1,S10,V
	09/16/08	27.8	170	14.8	735	2.3 I	595	152	135.0	190	51,600
	12/18/08	5.9	50.5 a	<1.8	42.4 a, I	38.1 a	68.8	16.0	7.8	397	19,400
CEF-046-02S	12/21/00	300	72	51	200	NA	230	NM	NM	NM	3100
	01/25/01	7.3	0.96	1.5	3.3	7.1	11	NM	NM	NM	540
	03/14/03	<1.0	<1.0	<1.0	<1.0	156	<2.0	<2.0	<2.0	NM	1370
	06/05/03	<1.00	<1.0	<1.0	<1.0	54.5	<0.10	<0.10	<0.10	NM	339
	09/03/03	<1.00	<1.0	<1.0	<1.0	21.3	0.24	<0.10	<0.10	NM	339
	12/11/03	<1.00	<1.0	<1.0	<3.0	21.7	<0.10	<0.10	<0.10	NM	796
	03/18/04	12.4	<1.0	<1.0	3.7	24.3	1.4	0.16	0.21	NM	436
	06/08/04	3.72	<1.00	<1.00	<1.00	26.1	0.643 I	<2.04	<2.04	NM	530
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	8.32Y	<2.17 J3Y	<2.17 J3Y	<2.17 J3Y	NM	0.26Y
	12/01/04	118	134.6	0.5700 I	136	135.8	81.30	4.56 I	<0.214	NM	2450
	03/13/05	54.6	1.04 I	0.210 I	1.64	47.8	96.50	7.77	0.439 I	NM	1600
	06/09/05	25.9	< 0.201	< 0.142	< 0.220	17.2	<0.101	< 0.133	< 0.210	664	1850
	09/06/05	<0.143	<0.201	<0.142	< 0.220	3.95	26.0	1.12 I	<0.203	843	NM
	09/21/05	NM	NM	NM	NM	NM	NM	NM	NM	NM	341
	12/06/05	<0.143	<0.201	<0.142	<0.220	4.47	<0.100	<0.133	<0.203	1880	654
	03/30/06	0.460 I	0.420 I	<0.176	<0.298	3.41	8.9	0.810 I	<0.203	722	1170
	06/09/06	<0.305	<0.338	<0.257	<0.433	2.00	<0.100	<0.133	<0.203	442	623
	09/25/06	<0.305	<0.338	<0.257	<0.433	1.69	<0.100	<0.133	<0.203	297	794
	12/08/06	3.18	0.600 I	<0.257	1.46	2.44	<0.100	<0.133	<0.203	415	431
	03/01/07	<0.305	<0.338	<0.257	<0.433	1.06	3.44 I	2.73 I	<0.203	360	316
	06/15/07	<0.305	<0.338	<0.338	<0.433	3.28	<0.100	<0.133	<0.203	41.0	231
	09/12/07	<0.305	<0.338	0.380 I	<0.433	<0.336	<0.100	<0.133	<0.203	<40.0	157 I V
	12/05/07	<0.305	<0.338	<0.257	<0.433	1.02	<0.100	<0.133	<0.203	245	32 I
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	104	<18
	06/18/08	<0.270	0.240 I	<0.280	<0.860	<0.420	<0.909	<0.909	<0.909	163	298 V,CF2,CF6
	09/16/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	297	244
	12/18/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	293	218 I
CEF-046-03S	12/06/05	17.2	1.81 I	0.480 I	1.56 I	19.3	<0.103	<0.137	<0.209	503	40 I
CEF-046-04S	12/06/05	0.570 I	<0.201	<0.142	0.540 I	1.47 I	<0.103	<0.137	<0.209	255	<18

TABLE 3
LABORATORY ANALYTICAL RESULTS

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well	Date	Benzene	Ethylbenzene	Toluene	Xylenes (Total)	Methyl-*tert*-butyl-ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Sulfate (mg/L)	TRPH
GCTL (µg/L)		1	30	40	20	20	14	28	28	250 *	5000
NADSC (µg/L)		100	300	400	200	200	140	280	280	N/A	50000
CEF-046-05I	12/21/00	**850**	**38**	**13**	**150**	NM	**1.6**	NM	NM	NM	<550
	01/25/01	**180**	**7.4**	**3.1**	**31**	<1.0	<1.0	NM	NM	NM	<520
	03/14/03	<1.0	<1.0	<1.0	**9.0**	<1.0	<2.0	<2.0	<2.0	NM	<200
	06/05/03	<1.00	<1.0	<1.0	**5.2**	**4.6**	<0.10	<0.10	<0.10	NM	<106
	09/03/03	<1.00	<1.0	<1.0	**6.6**	**66.2**	<0.10	<0.10	<0.10	NM	**333**
	12/11/03	<1.00	<1.0	<1.0	**4.1**	**70**	<0.10	<0.10	<0.10	NM	**456**
	03/18/04	**1.4**	<1.0	**1.1**	**3.9**	**28.4**	<0.10	<0.10	<0.10	NM	**242**
	06/08/04	<1.00	<1.00	<1.00	<1.00	**2.3**	<2.04	<2.04	<2.04	NM	<200
	09/21/04	<1.00Y	**1.61Y**	<1.00Y	**2.93Y**	<1.00Y	<2.20 J3Y	<2.20 J3Y	<2.20 J3Y	NM	<200Y
	12/01/04	<0.143	**0.4400 I**	<0.1417	<0.220	<0.2359	<0.23	<0.206	<0.216	NM	**120 I V**
	03/13/05	**1.75 I**	<0.201	<0.142	**1.23 I**	**3.56**	<0.112	<0.148	<0.233	NM	<18
	06/09/05	< 0.143	< 0.201	< 0.142	**0.950 I**	**8.65**	<0.101	< 0.133	< 0.210	**5440**	**19 I**
	09/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**462**	<18
	12/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**2520**	<18
	03/29/06	<0.140	<0.126	<0.176	<0.298	<0.236	<0.100	<0.133	<0.203	**1660**	<18
	06/09/06	0.340 I	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**2380**	**129 I**
	09/24/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**1910**	**56 I**
	12/09/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**14400**	**18 I**
	03/01/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	**3.23 I**	**3.05 I**	**99.2**	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**545**	**140 I**
	09/12/07	<0.305	<0.338	<0.257	<0.433	<0.336 J4	<0.100	<0.133	<0.203	**116**	**92 I V**
	12/05/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**4820**	**59 I**
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**72.0**	<18
	06/18/08	<0.270	<0.240	<0.280	<0.860	<0.420	<1.00	<1.00	<1.00	**91.0**	<105
	09/16/08	<0.4	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**683.0**	**333**
	12/18/08	<0.4	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**562**	<160
CEF-046-06D	12/21/00	**2.8**	**9.9**	**6**	**18**	NM	**3.5**	NM	NM	NM	<560
	02/08/01	<1.0	<1.0	<1.0	<1.0	<1.0	<1.1	NM	NM	NM	<500
	03/14/03	<1.0	<1.0	<1.0	6.0	<1.0	<2.0	<2.0	<2.0	NM	**274**
	06/09/03	<1.00	<1.0	<1.0	8.7	<1.0	<1.0	<1.0	<1.0	NM	<200
	09/03/03	<1.00	<1.0	<1.0	3.3	<1.0	<1.0	<1.0	<1.0	NM	<225
	12/10/03	<1.00	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	<1.0	NM	<200
	03/16/04	<1.00	<1.0	<1.0	<3.0	<1.0	<0.10	<0.10	<0.10	NM	<100
	06/08/04	<1.00	<1.00	<1.00	<1.00	<1.00	<2.04	<2.04	<2.04	NM	<200
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<2.15 J3Y	<2.15 J3Y	<2.15 J3Y	NM	<220Y
	12/01/04	<0.143	**1.180 I**	<0.1417	**1.35 I**	<0.2359	<0.23	<0.208	<0.219	NM	**140 I V**
	03/13/05	<0.143	<0.201	<0.142	**1.78 I**	<0.236	<0.112	<0.148	<0.233	NM	<18
	06/09/05	<0.143	<0.201	<0.142	**1.01 I**	<0.236	<0.101	<0.133	<0.210	**9580**	**24 I**
	09/06/05	<0.143	<0.201	<0.142	**0.340 I**	<0.236	<0.100	<0.133	<0.203	**7050**	<18
	12/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**8480**	<18
	03/29/06	<0.140	<0.126	<0.176	<0.298	<0.236	<0.100	<0.133	<0.203	**8270**	<18
	06/09/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**7510**	**135 I**
	09/24/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.0133	<0.203	**5290**	**36 I**
	12/09/06	<0.305	<0.338	<0.257	**1.22**	<0.336	**0.370 I**	<0.133	<0.203	**12400**	**74 I**
	03/01/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**12200**	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	**0.230 I**	**0.220 I**	**11500**	**168 I**
	09/12/07	<0.305	<0.338	**0.290 I**	**1.51**	<0.336	<0.100	**0.230 I**	**0.220 I**	**1130**	**103 I V**
	12/05/07	<0.305	<0.338	<0.257	**1.56**	<0.336	<0.452	**0.210 I**	**0.280 I**	**34600**	**91 I**
	03/06/08	<0.305	<0.338	<0.257	**1.63**	<0.336	<0.100	<0.133	<0.203	**14900**	<18
	06/18/08	<0.270	<0.240	<0.280	**1.55 I**	<0.420	<1.00	<1.00	<1.00	**13500**	**225 V,CF2,CV6**
	09/16/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**7790**	**238**
	12/18/08	<0.40	<0.43	<0.35	**2.4 I**	<0.26	<0.24	<0.24	<0.24	**10200**	**238 I**

TABLE 3
LABORATORY ANALYTICAL RESULTS

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well	Date	Benzene	Ethylbenzene	Toluene	Xylenes (Total)	Methyl-*tert*-butyl-ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Sulfate (mg/L)	TRPH
GCTL (µg/L)		1	30	40	20	20	14	28	28	250 *	5000
NADSC (µg/L)		100	300	400	200	200	140	280	280	N/A	50000
CEF-046-07I	12/21/00	9100	2800	17000	15000	NM	260	NM	NM	NM	13000
	02/22/01	6500	1400	10000	7900	6100	120	NM	NM	NM	17000
	03/14/03	945	150	86.5	904	4380	<2.0	<2.0	<2.0	NM	5480
	06/09/03	678	123	51.6	752	4190	32.4	0.42	0.24	NM	4080
	09/03/03	832	158	<10.0	697	5140	123	6.12	7.92	NM	2530
	12/11/03	734	111	5	290	5820	96.2	4.76	6.28	NM	5410
	03/18/04	386	66	8.5 ?	414	3460	2.15	<0.10	<0.10	NM	1900
	06/08/04	208	42.7	11.3	330	3080	3.34	<2.04	<2.04	NM	650
	09/21/04	494Y	38.1Y	9.99Y	387Y	2190Y	0.242 J3, IY	<2.20 J3Y	<2.20 J3Y	NM	980Y
	12/01/04	833	144.9	10.30	631	1943	131.2	5.18	8.13	NM	1770
	03/13/05	775	176	3.26	269	1480	128	5.39	7.40	NM	1570
	06/09/05	394	127	2.79	199	628	<0.101	<0.133	<0.210	279	1380
	09/06/05	92.9	41.3	2.52	95.6	1730	<0.100	<0.133	<0.203	167	1280
	12/06/05	651	144	11.3 I	357	2140	28.6	<0.148	<0.226	54.6	970
	03/30/06	146	26.0	0.650 I	29	1290	33.7	0.900 I	1.10 I	37.1	<18
	06/09/06	207	33.2	0.310 I	11.4	652	60.7	2.67 I	1.24 I	33.0	832
	09/25/06	162	25.4	0.310 I	5.07	296L	75.1	2.96 I	0.510 I	28.6	544
	12/08/06	<0.305	0.490 I	<0.257	<0.433	372	<0.100	<0.133	<0.203	139.0	<18
	03/01/07	74.0	11.8 I	<5.14	<8.65	450	29.1	3.72 I	<0.203	35.0	224
	06/15/07	115	15.0	0.360 I	2.81	338	20.0	1.04 I	<0.203	25.2	397
	09/12/07	81.9	9.91	0.290 I	0.840 I	198	18.8	1.01 I	<0.203	18.3	314 V
	12/05/07	84.1	12.4	0.380 I	0.970 I	213	30.8	1.45 I	<0.203	147	221
	03/06/08	64.2	11.0	<0.257	0.830	147 J4	13.6	1.20	<0.203	14.7	132
	06/18/08	43.4	8.28	<0.280	<0.860	81.9	13.0	1.81 I	<1.00	14.0	376 V,CF2,CF6
	09/16/08	42.5	6.40	<0.35	<1.2	65.1	7.9	1.30	<0.24	15.5	365
	12/18/08	24.1	2.3	<0.35	<1.2	169 a	<0.24	<0.24	<0.24	21.7	<160
CEF-046-08I	12/06/05	<0.143	<0.201	<0.142	<0.220	13.8	<0.103	<0.137	<0.209	13.3	<18
CEF-046-09I	12/20/00	<1.0	<1.0	<1.0	<1.0	NM	<1.1	NM	NM	NM	<570
	01/25/01	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	NM	NM	NM	<500
	03/14/03	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	NM	<200
	06/04/03	<1.00	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NM	<211
	09/03/03	<1.00	<1.0	<1.0	<1.0	<1.0	0.22	<1.0	<1.0	NM	<225
	12/10/03	<1.00	<1.0	<1.0	<1.0	<1.0	0.22	<1.0	<1.0	NM	<200
	03/16/04	<1.00	<1.0	<1.0	<3.0	<1.0	<0.11	<0.11	<0.11	NM	<111
	06/08/04	<1.00	<1.00	<1.00	<1.00	<1.00	<2.20	<2.20	<2.20	NM	<210
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	3.92Y	<2.20 J3Y	<2.20 J3Y	<2.20 J3Y	NM	220Y
	12/01/04	<0.143	0.5500 I	<0.1417	0.440 I	28.85	0.32 I	<0.202	<0.212	NM	80 I V
	03/13/05	<0.143	<0.201	<0.142	<0.220	16.0	<0.101	<0.133	<0.210	NM	<18
	06/09/05	<0.143	0.420 I	<0.142	0.550 I	13.5	<0.101	<0.133	<0.210	253	<18
	09/06/05	<0.143	<0.201	<0.142	0.220 I	79.7	<0.100	<0.133	<0.203	288 ?	<18
	12/06/05	<0.143	<0.201	<0.142	<0.220	48.1	<0.100	<0.133	<0.203	486	<18
	03/30/06	0.260 I	<0.126	<0.176	<0.298	24.2	<0.100	<0.133	<0.203	556	191
	06/09/06	<0.305	<0.338	<0.257	<0.433	12.7	<0.100	<0.133	<0.203	380	452
	09/24/06	<0.305	<0.338	<0.257	<0.433	14.6	<0.100	<0.133	<0.203	114	54 I
	12/08/06	<0.305	<0.338	<0.257	<0.433	9.52	<0.100	<0.133	<0.203	228	<18
	03/01/07	<0.305	<0.338	<0.257	<0.433	7.19	<0.100	2.71 I	2.35 I	137	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	9.60	<0.100	<0.133	<0.203	187	119 I
	09/12/07	<0.305	<0.338	0.270 I	<0.433	<0.336	<0.100	<0.133	<0.203	97.0	53 I V
	12/05/07	<0.305	<0.338	<0.257	<0.433	0.800 I	<0.100	<0.133	<0.203	35.7	<18
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	80.7	<18
	06/18/08	<0.270	<0.240	<0.280	<0.860	<0.420	<1.00	<1.00	<1.00	38.8	339 V,CF2,CF6
	09/16/08	<0.4	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	37.1	343
	12/18/08	<0.4	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	34.0	439
CEF-046-10I	12/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.102	<0.136	<0.207	9.04	<18
CEF-046-11I	12/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.105	<0.140	<0.214	17.4	<18

TABLE 3
LABORATORY ANALYTICAL RESULTS

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well	Date	Benzene	Ethylbenzene	Toluene	Xylenes (Total)	Methyl-*tert*-butyl-ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Sulfate (mg/L)	TRPH
GCTL (µg/L)		1	30	40	20	20	14	28	28	250 *	5000
NADSC (µg/L)		100	300	400	200	200	140	280	280	N/A	50000
CEF-046-12I	12/20/00	<1.0	<1.0	<1.0	<1.0	NM	<1.1	NM	NM	NM	<530
	01/24/01	<1.0	<1.0	<1.0	<1.0	**14**	<1.0	NM	NM	NM	<520
	03/14/03	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	NM	<200
	06/05/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<100
	09/03/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<225
	12/11/03	<1.00	<1.0	<1.0	<3.0	**2.2**	<0.10	<0.10	<0.10	NM	<200
	03/18/04	<1.00	<1.0	<1.0	<3.0	**79.9**	<0.10	<0.10	<0.10	NM	<222
	06/08/04	<1.00	<1.00	<1.00	<1.00	**502**	<2.20	<2.20	<2.20	NM	<200
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	**18.9Y**	<2.00 J3Y	<2.00 J3Y	<2.00 J3Y	NM	<200Y
	12/01/04	<0.143	<0.2010	<0.1417	<0.220	**8.480**	<0.22	<0.200	<0.210	NM	**240 I V**
	03/13/05	<0.143	<0.201	<0.142	<0.220	**0.450 I**	<0.101	<0.133	<0.210	NM	<18
	06/09/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	**47.5**	<18
	09/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**57.1**	<18
	12/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**43.9**	<18
	03/29/06	<0.140	<0.126	<0.176	<0.298	**0.310 I**	<0.100	<0.133	<0.203	**47.8**	<18
	06/09/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**49.9**	**70 I**
	09/25/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**63**	<18
	12/08/06	<0.305	<0.338	<0.257	<0.433	<0.335	<0.100	<0.133	<0.203	**68.3**	<18
	03/01/07	<0.305	<0.338	<0.257	<0.433	<0.336	**3.47 I**	**2.73 I**	<0.203	**49.2**	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**45.8**	**83 I**
	09/12/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**45.0**	**38 I V**
	12/05/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**44.8**	<18
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**49.3**	<18
	06/17/08	<0.270	<0.240	<0.280	<0.860	<0.420	<1.00	<1.00	<1.00	**55.0**	**204 V,I**
	09/16/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**58.9**	**331**
	12/18/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**50.4**	**171 I**
CEF-046-13I	12/20/00	<1.0	<1.0	<1.0	**0.45**	NM	**0.89**	NM	NM	NM	<540
	01/24/01	<1.0	<1.0	1.5	**0.62**	**280**	**0.6**	NM	NM	NM	**320**
	03/14/03	<1.0	<1.0	<1.0	<1.0	**318**	<2.0	<2.0	<2.0	NM	**276**
	06/05/03	**1.10**	<1.0	<1.0	<1.0	**254**	**0.19**	<0.10	<0.10	NM	<100
	09/03/03	<1.00	<1.0	<1.0	<1.0	**240**	**0.12**	<0.10	<0.10	NM	<225
	12/11/03	<1.00	<1.0	<1.0	<0.30	**114**	**0.5**	<0.10	<0.10	NM	**208**
	03/18/04	<1.00	<1.0	<1.0	<3.0	**60.7**	<0.10	<0.10	<0.10	NM	<250
	06/08/04	<1.00	<1.00	<1.00	<1.00	**83.8**	<2.02	<2.02	<2.02	NM	<220
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	**149Y**	<2.22 J3Y	<2.22 J3Y	<2.22 J3Y	NM	<200Y
	12/01/04	<0.143	**0.9000 I**	<0.1417	**1.29 I**	**337.5**	<0.22	<0.202	<0.212	NM	**150 I V**
	03/13/05	<0.143	<0.201	<0.142	<0.220	**133**	<0.101	<0.133	<0.210	NM	<18
	06/09/05	<0.143	<0.201	<0.142	<0.220	**62.7**	<0.101	<0.133	< 0.210	**481**	<18
	09/06/05	<0.143	<0.201	<0.142	<0.220	**1.75 I**	<0.100	<0.133	<0.203	**519**	<18
	12/06/05	<0.143	<0.201	<0.142	<0.220	**0.880 I**	<0.100	<0.133	<0.203	**189**	<18
	03/29/06	<0.140	<0.126	<0.176	<0.298	**0.400 I**	<0.100	<0.133	<0.203	**104**	<18
	06/09/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**54.3**	**96 I**
	09/25/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**33.5**	<18
	12/08/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**42.6**	<18
	03/01/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**29.2**	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**26.8**	**66 I**
	09/12/07	<0.305	<0.338	0.300 I	<0.433	<0.336	<0.100	<0.133	<0.203	<20.0	**38 I V**
	12/05/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.100	<0.203	**25.1**	<18
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.100	<0.203	**51.7**	<18
	06/17/08	<0.270	<0.240	<0.280	<0.860	<0.420	<0.952	<0.952	<0.952	**28.7**	**341 V,CF2,CF6**
	09/16/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**27.1**	**274**
	12/18/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**32.4**	**203 I**

TABLE 3
LABORATORY ANALYTICAL RESULTS

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well	Date	Benzene	Ethylbenzene	Toluene	Xylenes (Total)	Methyl-*tert*-butyl-ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Sulfate (mg/L)	TRPH
GCTL (µg/L)		1	30	40	20	20	14	28	28	250 *	5000
NADSC (µg/L)		100	300	400	200	200	140	280	280	N/A	50000
CEF-046-14D	12/20/00	<1.0	<1.0	**0.42**	**0.37**	NM	<1.1	NM	NM	NM	<550
	01/24/01	<1.0	<1.0	<1.0	**0.23**	<1.0	<1.0	NM	NM	NM	<530
	03/14/03	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	NM	**248**
	06/04/03	<1.00	<1.0	<1.0	<1.0	**1**	<0.10	<0.10	<0.10	NM	<211
	09/03/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<225
	12/10/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<200
	03/16/04	<1.00	<1.0	<1.0	<3.0	**4.2**	<0.10	<0.10	<0.10	NM	<100
	06/08/04	<1.00	<1.00	<1.00	<1.00	**2.4**	<2.20	<2.20	<2.20	NM	<220
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	**2.97Y**	<2.20 J3Y	<2.20 J3Y	<2.20 J3Y	NM	<200Y
	12/01/04	<0.143	<0.2010	<0.1417	<0.220	**2.500**	<0.22	<0.204	<0.214	NM	**80 I V**
	03/13/05	<0.143	<0.201	<0.142	<0.220	**3.190**	<0.101	<0.133	<0.210	NM	<20
	06/09/05	<0.143	<0.201	<0.142	<0.220	**1.38 I**	<0.101	<0.133	< 0.210	**5.16**	<20
	09/06/05	<0.143	<0.201	<0.142	<0.220	**5.30**	<0.100	<0.133	<0.203	**29.3 ?**	<18
	12/06/05	<0.143	<0.201	<0.142	<0.220	**8.21**	<0.111	<0.148	<0.226	**15.3**	<18
	03/29/06	<0.140	<0.126	<0.176	<0.298	**1.07**	<0.100	<0.133	<0.203	**2.12**	<18
	06/09/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	<2.00	**94 I**
	09/24/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**2.91 J4**	<18
	12/08/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	<2.00	**52 I**
	03/01/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	**2.72 I**	**2.39 I**	<2.00	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	<2.00	**83 I**
	09/12/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	<200 J4	**39 I V**
	12/05/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	<2.00	<18
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	<2.00	<18
	06/17/08	0.27	<0.240	<0.280	<0.860	<0.420	<0.971	<0.971	<0.971	<0.500	<105
	09/16/08	<0.40	<0.43	<0.35	<1.2	**2.70**	<0.24	<0.24	<0.24	**9.5**	<270
	12/18/08	<0.40	<0.43	<0.35	<1.2	**3.5**	<0.24	<0.24	<0.24	**3.4**	<170
CEF-046-15I	12/20/00	<1.0	<1.0	<1.0	<1.0	NM	<1.1	NM	NM	NM	<550
	01/24/01	**0.17**	<1.0	<1.0	<1.0	<1.0	<1.0	NM	NM	NM	<530
	03/13/03	<1.0	<1.0	<1.0	<1.0	<1.0	<2.4	<2.4	<2.4	NM	<200
	06/04/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<222
	09/03/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<225
	12/10/03	<1.00	<1.0	<1.0	<3.0	<1.0	<0.10	<0.10	<0.10	NM	<200
	03/16/04	<1.00	<1.0	<1.0	<3.0	<1.0	<0.11	<0.11	<0.11	NM	<100
	06/08/04	<1.00	<1.00	<1.00	<1.00	<1.00	<2.20	<2.20	<2.20	NM	<220
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<2.11Y	<2.11 J3Y	<2.11 J3Y	NM	<220Y
	12/01/04	<0.143	<0.2010	<0.1417	<0.220	<0.2359	<0.23	<0.206	<0.216	NM	**110 I V**
	03/13/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	NM	<18.0
	06/09/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	**25.6**	< 20
	09/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**34.8 ?**	<18
	12/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.111	<0.148	<0.226	**20.3**	<18
	03/30/06	<0.140	<0.126	<0.176	<0.298	<0.236	<0.100	<0.133	<0.203	**29.8**	<18
	06/09/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**26.7**	**28 I**
	09/24/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**23.9**	<18
	12/08/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**33.8**	<18
	03/01/07	<0.305	<0.338	<0.257	<0.433	<0.336	**3.42 I**	<0.133	<0.203	**29.8**	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**26.7**	**133 I**
	09/12/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**23.5**	**70 I V**
	12/05/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**25.6**	<18
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**34.3**	<18
	06/17/08	<0.270	<0.240	<0.280	<0.860	<0.420	<1.00	<1.00	<1.00	**32.7**	**118 V, I**
	09/16/08	<0.40	<0.43	<0.354	<1.2	<0.26	<0.24	<0.24	<0.24	**51.2**	**460**
	12/18/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**36.9**	<160
CEF-046-16I	12/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.102	<0.136	<0.207	**20.5**	<18

TABLE 3
LABORATORY ANALYTICAL RESULTS

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well	Date	Benzene	Ethylbenzene	Toluene	Xylenes (Total)	Methyl-*tert*-butyl-ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Sulfate (mg/L)	TRPH
GCTL (µg/L)		1	30	40	20	20	14	28	28	250 *	5000
NADSC (µg/L)		100	300	400	200	200	140	280	280	N/A	50000
CEF-046-17D	12/06/05	<0.143	<0.201	<0.142	<0.220	**27.4**	<0.105	<0.140	<0.214	**982**	**158 I**
CEF-046-18I	12/07/05	<0.143	<0.201	<0.142	**0.440 I**	**1.17 I**	<0.111	<0.148	<0.226	**84.2**	<20
CEF-046-19I	12/07/05	**21.6**	**0.640 I**	<0.142	**4.86**	**27.7**	<0.103	<0.137	<0.209	**1230**	<20
CEF-046-20I	12/07/05	<0.143	<0.201	<0.142	<0.220	0.940 I	<0.109	<0.145	<0.221	**112**	<18
CEF-046-21I	12/20/00	<1.0	<1.0	<1.0	<1.0	NM	<1.1	NM	NM	NM	<550
	01/25/01	**0.25**	<1.0	**0.7**	<1.0	<1.0	<1.0	NM	NM	NM	**300**
	03/13/03	<1.0	<1.0	<1.0	<1.0	<1.0	<2.2	<2.2	<2.2	NM	<200
	06/05/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<100
	09/03/03	<1.00	<1.0	<1.0	<1.0	<1.0	**0.18**	**0.27**	**0.2**	NM	**308**
	12/11/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<200
	03/18/04	<1.00	<1.0	<1.0	<3.0	<1.0	<0.10	<0.10	<0.10	NM	<222
	06/08/04	<1.00	<1.00	<1.00	<1.00	<1.00	<2.04	<2.04	<2.04	NM	<200
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<2.20Y	<2.20 J3Y	<2.20 J3Y	NM	<220Y
	12/01/04	<0.143	<0.2010	<0.1417	<0.220	<0.2359	<0.23	<0.206	<0.216	NM	**100 I V**
	03/13/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	NM	<18
	06/09/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	**14.1**	< 18
	09/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**29.5**	< 18
	12/07/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.111	<0.148	<0.226	**10.6**	<20
	03/29/06	<0.140	<0.126	<0.176	<0.298	<0.236	<0.100	<0.133	<0.203	**14.9**	<18
	06/09/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**12.6**	**76 I**
	09/24/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**26.2**	**35 I**
	12/08/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**34.2**	<18
	03/01/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**31.9**	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**61.4**	**156 I**
	09/12/07	<0.305	<0.338	**0.410 I**	<0.433	<0.336	<0.100	<0.133	<0.203	**27.7**	**238 V**
	12/05/07	<0.305	<0.0338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**28.0**	<18
	03/06/08	<0.305	<0.0338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**34.9**	<18
	06/18/08	<0.270	<0.240	<0.280	<0.860	<0.420	<1.00	<1.00	<1.00	**51.1**	<110 CF2,CF6,U
	09/16/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**709**	<160
	12/18/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**76.1**	<160
CEF-046-22I	12/07/05	<0.143	<0.201	<0.142	**0.570 I**	<0.236	<0.105	<0.140	<0.214	**1060**	<20
CEF-046-23D	12/07/05	**0.900 I**	**2.04**	**1.48 I**	**40.7**	**0.320 I**	<0.111	<0.148	<0.226	**6310**	**102 I**
CEF-046-24D	12/20/00	<1.0	<1.0	**0.47**	**0.41**	NM	<1.1	NM	NM	NM	<500
	01/25/01	**8.3**	**0.81**	**1**	**2**	<1.0	<1.0	NM	NM	NM	<510
	03/14/03	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	NM	<200
	06/05/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<100
	09/03/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<225
	12/10/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<200
	03/16/04	<1.00	<1.0	<1.0	<3.0	<1.0	<0.10	<0.10	<0.10	NM	<100
	06/08/04	<1.00	<1.00	<1.00	<1.00	<1.00	<2.20	<2.20	<2.20	NM	<200
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<2.04Y	<2.04 J3Y	<2.04 J3Y	NM	<200Y
	12/01/04	<0.143	<0.2010	<0.1417	<0.220	<0.2359	**0.40 I**	<0.200	<0.210	NM	**130 I V**
	03/13/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	NM	<18
	06/09/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	**2030**	< 20
	09/06/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**1840**	<18
	12/07/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.100	<0.133	<0.203	**2120**	<22
	03/29/06	<0.140	<0.126	<0.176	<0.298	<0.236	<0.100	<0.133	<0.203	**1800**	<18
	06/09/06	<0.305	<0.388	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**1430**	**125 I**
	09/24/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**732**	**31 I**
	12/08/06	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**737**	**34 I**
	03/01/07	<0.305	<0.338	<0.257	<0.433	<0.336	**3.42 I**	<0.133	<0.203	**596**	<18
	06/15/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**420**	**109 I**
	09/12/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**217**	**40 I V**
	12/05/07	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**414**	**245**
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**151**	<18
	06/17/08	<0.270	<0.240	<0.280	<0.860	<0.420	<0.952	<0.952	<0.952	**398**	**184 H2,I**
	09/16/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**70.5**	<160
	12/18/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**1550 ****	**214 I**

TABLE 3
LABORATORY ANALYTICAL RESULTS

BUILDING 46
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well	Date	Benzene	Ethylbenzene	Toluene	Xylenes (Total)	Methyl-*tert*-butyl-ether	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Sulfate (mg/L)	TRPH
GCTL (µg/L)		1	30	40	20	20	14	28	28	250 *	5000
NADSC (µg/L)		100	300	400	200	200	140	280	280	N/A	50000
CEF-046-25I	12/20/00	<1.0	<1.0	<1.0	<1.0	NM	<1.1	NM	NM	NM	<560
	01/25/01	**0.25**	<1.0	<1.0	**0.42**	<1.0	<1.0	NM	NM	NM	**320**
	03/13/03	<1.0	<1.0	<1.0	<1.0	<1.0	<2.3	<2.3	<2.3	NM	<200
	06/04/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<200
	09/03/03	<1.00	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	NM	<225
	12/10/03	<1.00	<1.0	<1.0	<3.0	<1.0	<0.10	<0.10	<0.10	NM	<200
	03/16/04	<1.00	<1.0	<1.0	<3.0	<1.0	<0.10	<0.10	<0.10	NM	<111
	06/08/04	<1.00	<1.00	<1.00	<1.00	<1.00	<2.02	<2.02	<2.02	NM	<200
	09/21/04	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<1.00Y	<2.11Y	<2.11 J3Y	<2.11 J3Y	NM	<220Y
	12/01/04	<0.143	**0.4800 I**	<0.1417	<0.220	<0.2359	<0.22	<0.204	<0.214	NM	**100 I V**
	03/13/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	NM	<18
	06/09/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.133	<0.210	**622**	<20
	09/06/05	<0.143	<0.201	<0.142	**0.590 I**	<0.236	**0.260 I**	<0.133	<0.203	**477**	<20
	12/07/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.102	<0.136	<0.207	**271**	<20
	03/29/06	<0.140	**0.126**	<0.176	<0.298	<0.236	<0.100	<0.133	<0.203	**93.2**	<18
	06/09/06	<0.305	<0.388	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**65.1**	**68 I**
	09/24/06	<0.305	<0.388	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**33.0**	**38.0 I**
	12/09/06	<0.305	<0.388	<0.257	<0.433	<0.336	**0.890 I**	<0.133	<0.203	**94.9**	**55 I**
	03/01/07	<0.305	<0.388	<0.257	<0.433	<0.336	<0.100	**2.69 I**	<0.203	**67.4**	<18
	06/15/07	<0.305	<0.388	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**61.7**	**135 I**
	09/12/07	<0.305	<0.388	<0.257	<0.433	<0.336	<0.100	<0.133	<0.203	**42.3**	**111 I V**
	12/05/07	<0.305	<0.338	<0.257	<0.433	<0.336	**1.68**	**0.230 I**	**0.260 I**	**23.9**	**39 I**
	03/06/08	<0.305	<0.338	<0.257	<0.433	<0.336	**0.280**	<0.133	<0.203	**43.4**	<18
	06/18/08	<0.270	<0.240	<0.280	<0.860	<0.420	<0.952	<0.952	<0.952	**23.2**	<110
	09/16/08	<0.40	<0.43	<0.35	<1.2	<0.26	**0.7 I**	<0.24	<0.24	**22.9**	**203**
	12/17/08	<0.40	<0.43	<0.35	<1.2	<0.26	**0.61 I**	<0.24	<0.24	**15.0**	<170
CEF-046-26I	12/20/00	**1300**	**78**	**41**	**310**	NM	<1.1	NM	NM	NM	<530
	01/25/01	**2400**	**270**	**100**	**820**	<5.0	<1.0	NM	NM	NM	**890**
	03/14/03	**866**	**23.3**	**5.4**	**199**	**15.9**	<2.0	<2.0	<2.0	NM	**628**
	06/05/03	**845**	**30**	<10.0	**314**	**21**	<0.10	<0.10	<0.10	NM	**598**
	09/03/03	**902**	**24**	<10.0	**347**	**17.0**	<0.10	<0.10	<0.10	NM	**488**
	12/11/03	**693**	**16.5**	**7.9**	**198**	**19.4**	<0.10	<0.10	<0.10	NM	**954**
	03/18/04	**870**	**8.3**	**6.3 ?**	**162**	**20.3**	<2.20	<2.20	<2.20	NM	**380**
	06/08/04	**832**	**87.9**	**47.7**	**371**	**25.4**	**0.13**	<0.10	<0.10	NM	**524**
	09/21/04	**184Y**	**27.7Y**	**7.84Y**	**233Y**	**141Y**	<2.04Y	<2.04 J3Y	<2.04 J3Y	NM	**280Y**
	12/01/04	**168**	**16.67**	**6.42**	**128**	**12.05**	**0.56 I**	<0.206	<0.216	NM	**1500**
	03/13/05	**5.17**	**2.03**	**0.420 I**	**17.6**	**1.83 I**	**0.216 I**	<0.133	<0.210	NM	**59 I**
	06/09/05	**9.21**	**4.68**	**0.570 I**	**42.4**	**2.33**	<0.101	<0.133	<0.210	**3190**	**1730**
	09/06/05	**1.16 I**	**0.900 I**	<0.142	**13.3**	<0.236	<0.100	<0.133	<0.203	**2300**	**67 I**
	12/07/05	**6.72**	**0.740 I**	<0.142	**11.5**	**0.480 I**	<0.100	<0.133	<0.203	**1890**	<18
	03/29/06	**1.00**	**0.490 I**	<0.176	**9.64**	**1.89**	<0.100	<0.133	<0.203	**415**	**390**
	06/09/06	**0.460 I**	<0.338	<0.257	**5.35**	**0.380 I**	<0.100	<0.133	<0.203	**1460**	**107 I**
	09/24/06	**0.490 I**	<0.338	<0.257	**4.10**	<0.336	<0.100	<0.133	<0.203	**876**	**19 I**
	12/08/06	**0.730 I**	<0.338	<0.257	**3.96**	<0.336	<0.100	<0.133	<0.203	**1190**	**20 I**
	03/01/07	**0.850 I**	<0.338	<0.257	**3.57**	<0.336	<0.100	<0.133	<0.203	**804**	<18
	06/15/07	**0.340 I**	<0.338	<0.257	**1.62**	**0.440 I**	<0.100	<0.133	<0.203	**1840**	**167 I**
	09/12/07	**0.350 I**	<0.338	**0.290 I**	**1.13**	<0.336	<0.100	<0.133	<0.203	**1280**	**136 I V**
	12/05/07	<0.305	<0.338	<0.257	**1.78**	<0.336	<0.100	<0.133	<0.203	**1060**	**72 I**
	03/06/08	<0.305	<0.338	<0.257	**1.34**	<0.336	<0.100	<0.133	<0.203	**170**	**172**
	06/17/08	<0.270	<0.240	<0.280	<0.860	<0.420	<0.952	<0.952	<0.952	**398**	<105 CF2,CF6,U
	09/16/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**300**	<160
	12/17/08	<0.40	<0.43	<0.35	<1.2	<0.26	<0.24	<0.24	<0.24	**278**	<160
CEF-046-27D	12/07/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.101	<0.134	<0.205	**2.22**	<18
CEF-046-28I	12/07/05	**13.6**	<0.201	<0.142	**1.34 I**	**10.6**	<0.109	<0.145	<0.221	**1300**	<18
CEF-046-29I	12/07/05	**19.8**	<0.201	<0.142	**2.46**	**0.350 I**	<0.103	<0.137	<0.209	**2220**	<18
CEF-046-30I	12/07/05	<0.143	<0.201	<0.142	<0.220	<0.236	<0.111	<0.148	<0.226	**721**	<18
CEF-046-31I	12/07/05	**0.560 I**	<0.201	<0.142	<0.220	<0.236	<0.111	<0.148	<0.226	**2120**	<20

Table 3 Data Qualifiers, Definitions and Notes

GCTL - Groundwater cleanup target level
NADSC - Natural attenuation default source concentration
All values reported in µg/L unless otherwise noted.
* GCTL reported in mg/L
NE - Not established
Concentration exceeds the GCTL value
Concentration exceeds the NADSC value
Bold - analyte was detected above the method detection limit
TRPH - Total Recoverable Petroleum Hydrocarbons
NM - Not measured
N/A - Not applicable
? - Rejected during data validation
V - the analyte was detected in both the sample and the associated method blank
L- Off-scale high, actual value is known to be greater than the value given.
CF2 - Confirmatory analysis was past holding time
CF6 - Results confirmed by reanalysis
H2 - Initial analysis within holding time. Reanalysis for the required dilution of confirmation was past holding time
I - The reported vlaue is between the laboratory MDL and RL
J4 - The sample matrix interfered with the ability to make an accurate determination
B1 - Analyte was detected in the associated method blank. Analyte concentration in the sample is greater than 10x the concentration found in the method blank
S10 - Insufficient sample available for reanalysis
a - Result is from Run #2
** - estimated value above calibration range

APPENDIX A

GROUNDWATER SAMPLING LOGS

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-OLD	SAMPLE ID: CEF-046-OLD	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 13.11	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X 62.21 feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 2' ABOVE BOTTOM	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: ~~12:04~~ 12:20	PURGING ENDED AT: 12:47	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	ORP
12:32		0.3	190 ml/min	13.62	2.4	28.2	8292	3.11	84.2	orange	none	438
12:37		0.5		13.64	2.4	28.31	8281	3.43	72.7	orange	none	436
12:42		0.7		13.65	2.4	28.32	8289	3.72	77.9	orange	none	432
12:47		0.9		13.66	2.3	28.31	8289	3.68	74.2	orange	none	452

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jessica Dehart	SAMPLER(S) SIGNATURES: J Dehart	SAMPLING INITIATED AT: 12:55	SAMPLING ENDED AT: 1:44
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type: _____	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: >10 H_2S: Ø CO_2: INTERFERENCE DO: 2 A_T: Ø

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

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

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

TUBING ~3' DOWN WELL; REPLACED TUBING

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-05I	SAMPLE ID: CEF-046-05I	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): ~~0.38~~ 3/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 10.91	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 2' ABOVE BOTTOM	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 10:15	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
			~~11.22~~							~~Smoot~~ ~~Lcopertiewk~~		DEP
10:32		0.3	180 ml/min	11.22	2.9	25.68	852	9.81	28.2	Clear	none	—
10:38		0.6		11.24	2.8	25.77	850	3.74	16.4	Clear	none	236
10:43		0.8		11.25	2.8	25.82	852	2.31	14.7	Clear	none	233
10:48		1.0		11.25	2.9	25.81	852	2.13	14.7	clear	none	240
10:52		1.3		11.25	2.9	25.80	850	2.13	15.2	clear	none	238

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jessica Dehart	SAMPLER(S) SIGNATURES: J Dehart	SAMPLING INITIATED AT: 10:55	SAMPLING ENDED AT: 11:32
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	~~1~~ 3	~~PE~~ CG	~~250~~ 40 mL	~~None~~ HCl	NA		BTEX & MTBE 8260B	PP
	~~3~~ 1	~~CG~~	~~40~~ mL	~~HCl~~ None	Added at Lab	Not Recorded	Sulfate 300.0	RFPP
			250					

REMARKS: Field Kits: Fe^{++}: ~~<1~~ 0 H_2S: 0 CO_2: 400 DO: 2.0 A_T: 0

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

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

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

Tubing ~ 2' below well top prior to sampling
GAS IN TUBING COMING OUT OF WELL
REPLACED W/ LONGER TUBING

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-01S	SAMPLE ID: CEF-046-01S	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4" 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 10.01	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): ~~2' above~~ bottom	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 8:20	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

@ bottom →

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	ORP
8:40	0.1		75 ml/min*	10.40	4.7	23.08	923	0.58	84.1	cloudy	none	83.
8:48		0.3		10.51	4.7	23.59	945	0.46	48.5	cloudy	none	70.
8:52		0.4		10.54	4.8	23.52	928	0.45	45.0	sl cloudy	slight	51.
8:56		0.5		10.56	4.8	23.55	921	0.44	46.1	clear - sl cloudy	strong	43.
		0.7 total purge										

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Jessica Dehart	SAMPLER(S) SIGNATURES: J Dehart	SAMPLING INITIATED AT: 9:03	SAMPLING ENDED AT: 9:58
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: PE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
1	~~1~~ 3	PE	~~250~~ 40 mL	~~None~~ HCl	NA		BTEX & MTBE 8260B	PP
	3/1	CG	~~40~~ mL	~~HCl~~ None	~~Added at Lab~~	Not Recorded	Sulfate 300.0	RFPP
			250					

REMARKS: Field Kits: Fe^{++}: >10 H_2S: 5 CO_2: 110 DO: 0.(A_T: >1000 (2 readings)
* PURGE RATE CHECKED 3 TIMES ONLY 1 VOA, REPLACED TUBING w/ 1/4"

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

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

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

Double check location on map
No N/E AVAILABLE

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-14D	SAMPLE ID: CEF-046-14D	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 9.99	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 927	PURGING ENDED AT: 948	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
942	0.4			10.36	5.30	23.77	87	3.23	3.1	Clear	None	OKI
945	0.5			10.28	5.30	23.77	87	3.13	2.2			112.
948	0.6			10.28	5.31	23.74	87	2.98	2.3			112.

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Leif Hazlewood	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 950	SAMPLING ENDED AT: 1024
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 165	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type: ____	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: 2 mg/l H_2S: 0.4 mg/l CO_2: 40 mg/l DO: 0.1 mg/l AT: 70 mg/l

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

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

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

Flow Rate: 55ml/20sec

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046- 12I	SAMPLE ID: CEF-046-12I	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 9.49	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 8:17	PURGING ENDED AT: 8:41	TOTAL VOLUME PURGED (gallons): 0.8

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	ORP
8:29	0.4			9.52	4.50	23.44	158	3.88	6.6	Clear	None	137.
8:32	0.5			9.52	4.38	23.52	158	3.40	4.8			140.
8:35	0.6			9.52	4.28	23.55	159	3.15	4.3			141.
8:38	0.7			9.52	4.27	23.57	159	3.05	4.0			142.
8:41	0.8			9.53	4.24	23.60	159	2.96	4.3			142.

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Leif Hazlewood	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 845	SAMPLING ENDED AT: 918
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 180	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: 2 mg/l H_2S: 0.2 mg/l CO_2: 50 mg/l DO: 0.2 mg/l AT: 0 mg/l

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

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

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

Flow Rate 60 ml/20 sec.

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL
WELL NO: CEF-046-13I	SAMPLE ID: CEF-046-13I — DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): ~~0.38~~ 0.25	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 9.74	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 934	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1052	0.4			9.76	4.23	24.67	148	Malfunction	2.8	Clear	None
1115	STOPPED	PURGE	TO	REPLACE		YSI	(1.2 Gallons Purged)				
1117	STARTED	NEW	PURGE	(DTW:	9.76)						
1124	0.2			9.76	3.67	24.93	169	0.76	2.8		
1127	0.3			9.76	3.66	24.99	169	0.52	2.4		
1130	0.4			9.76	3.66	25.04	170	0.37	2.3		
1133	0.5			9.76	3.64	25.08	171	0.29	2.0		

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Leif Harlenwood	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1135	SAMPLING ENDED AT: 1209
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 135	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type: ____	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: 2 mg/l H_2S: 0.4 mg/l CO_2: 300 mg/l DO: 0.1 mg/l T: Out of Range

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

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

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

Flow Rate 45 ml/20 sec

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL
WELL NO: CEF-046- 15 I	SAMPLE ID: CEF-046-15I — DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 10.29	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1230	PURGING ENDED AT: 1248	TOTAL VOLUME PURGED (gallons): 0.6

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
1242	0.4			10.46	3.56	22.90	121	0.60	2.6	Clear	None	-195
1245	0.5			10.47	3.53	22.95	123	0.49	2.4			-196
1248	0.6			10.46	3.53	22.90	125	0.44	2.4			-197

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Leif Hardewood	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1250	SAMPLING ENDED AT: 1317
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 180	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: 3 mg/l H_2S: 0 mg/l CO_2: 200 mg/l DO: 0.1 mg/l A_T: 0 mg/l

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

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

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

Flow Rate: 90 ml/30 sec

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-02S	SAMPLE ID: CEF-046-02S	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.25 ~~0.38~~	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0944	PURGING ENDED AT: 1007	TOTAL VOLUME PURGED (gallons): 0.8

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0954	0.4			10.09	6.11	23.78	650	2.25	58	Clear	—
0958	0.5			10.09	6.29	23.88	653	0.81	4	"	—
1001	0.6			10.09	6.31	23.87	654	0.69	3	"	—
1005	0.8			10.09	6.39	23.75	655	0.60	2	"	—

OR
5.
0.
0.
0.

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JACK STRADER	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1008	SAMPLING ENDED AT: 1056
PUMP OR TUBING DEPTH IN WELL (feet): 20 off BOTTOM	SAMPLE PUMP FLOW RATE (mL per minute): 150 mL/min	TUBING MATERIAL CODE:	
FIELD DECONTAMINATION: (P) N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type: ____	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++} 0.4 ~~[illegible]~~ H_2S: 0.2 ~~[illegible]~~ CO_2: 70 DO: 0.3 A_T: 50 150 mL/min
SHALLOW - RE-TUBED ~~[illegible]~~ ~~[illegible]~~

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

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

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

NOTE: DOUBLED TUBING LENGTH + NOT ENOUGH VOLUME TO FILL 3 VOA'S; ONLY TWO VOAS FOR 8260 B

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-07I	SAMPLE ID: CEF-046-07I	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 10.23	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 3' off Bottom	PURGING INITIATED AT: 0810	PURGING ENDED AT: 0831	TOTAL VOLUME PURGED (gallons): 1.5

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
0820	0.5			11.01	4.48	23.46	56	.76	60	Clear	None	68.
0824	0.7			11.09	4.45	23.62	57	.48	56	"	—	64.
0827	1.0			11.16	4.35	23.91	58	.42	58	"	—	66.
0830	1.1			11.20	4.37	23.98	58	.40	54	"	—	68

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JACK STRADER	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 0833	SAMPLING ENDED AT: 0910
PUMP OR TUBING DEPTH IN WELL (feet): 3' off Bottom	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE:	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: 0.2 H_2S: 2.0 CO_2: >1000 OUT OF RANGE DO: 0.3 A_T: >1000 OUT OF RANGE 220 mg/mL

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

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

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

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-09I	SAMPLE ID: CEF-046	DATE: 09I

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8" 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 10.34	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1122	PURGING ENDED AT: 1141	TOTAL VOLUME PURGED (gallons): 1.1

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. ~~(mmhos/cm)~~ or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
1133	0.7			11.39	4.49	25.79	108	1.29	3	Clear	None	-14.
1136	0.8			11.39	4.44	25.87	109	1.20	3	"	"	-13.
1139	1.0			11.39	4.45	25.91	109	0.99	2	"	"	-14.

OR,

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JACK STRADER	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1142	SAMPLING ENDED AT: 1210
PUMP OR TUBING DEPTH IN WELL (feet): 2' off BOTTOM	SAMPLE PUMP FLOW RATE (mL per minute): 225 ml/min	TUBING MATERIAL CODE:	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++} 3.0 H_2S: 0.6 CO_2: 95 DO: 0.1 AT: 0 ppm

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

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

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

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-24D	SAMPLE ID: CEF-046-24D	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): ~~0.38~~ 3/8"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 11.00	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1247	PURGING ENDED AT: 1306	TOTAL VOLUME PURGED (gallons): 1.0

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
1257	0.6			11.10	2.04	24.79	1118	1.28	4	Clear	NONE	OK
1301	0.8			11.10	2.12	24.78	1111	1.14	3	"	"	40
1305	0.9			11.10	2.19	24.76	1108	1.17	2	"	"	40

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JACK STRADER	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1308	SAMPLING ENDED AT: 1342
PUMP OR TUBING DEPTH IN WELL (feet): 3' off Bottom	SAMPLE PUMP FLOW RATE (mL per minute): 225 mL/min	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type: ____	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++} >10 OUT OF RANGE H_2S: 0 ppm CO_2: 300 DO: 0 ppm A_T: 0 225 mL/min

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

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

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

DEP-SOP-001/01
FS 2200 Groundwater Sampling
Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL	
WELL NO: CEF-046-21I	SAMPLE ID: CEF-046-21I	DATE: 12/18/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 11.67	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 0950	PURGING ENDED AT: 1015	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
1000	0.3			11.22	3.86	23.36	176	1.27	10	Clear	none	-20
1003	~~0.4~~ 0.5			11.23	3.84	23.44	177	0.59	5	Clear	none	-205
1006	0.7			11.23	3.83	23.47	177	0.42	4	Clear	none	-20
1009	0.9			11.23	3.83	23.49	178	0.33	5	Clear	none	-20
1012	1.1			11.23	3.84	23.51	179	0.27	3	Clear	none	-210

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dawn Marshall	SAMPLER(S) SIGNATURES: Dawn Marshall	SAMPLING INITIATED AT: 1015	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 250 mL/min	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: 7 H_2S: 0 CO_2: 70 DO: 0.3 AT: ~~over range~~ ~~>10~~ Dm *

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

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

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

 Left silicone + extra tubing in well b/c it felt a little short

* Alkalinity = 0

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL
WELL NO: CEF-046-25I	SAMPLE ID: CEF-046-25I — DATE: 12/17/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 11.09	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 1706	PURGING ENDED AT: 1729	TOTAL VOLUME PURGED (gallons): 0.8 OR

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	
1717	0.4			11.09	4.04	22.69	71	0.48	0.0	Clear	None	-184
1720	0.5			11.09	4.01	22.70	67	0.40	4.3			-186
1723	0.6			11.09	3.99	22.71	65	0.32	3.1			-187
1726	0.7			11.09	3.98	22.71	66	0.28	2.4			-188
1729	0.8			11.09	3.97	22.69	66	0.26	2.2			-189

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Leif Hazlewood	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1730	SAMPLING ENDED AT: 1805
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 180	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: Y N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type: ____	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: 4 mg/l H_2S: 3 mg/l CO_2: 70 mg/l DO: 0.1 mg/l A_T: Over Range >1000

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

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

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

Flow Rate 90 ml/30 sec

GROUNDWATER SAMPLING LOG

SITE NAME: Building 46-Cecil Field LTM/Rao	SITE LOCATION: Jacksonville, FL
WELL NO: CEF-046-26I	SAMPLE ID: CEF-046-26I	DATE: 12/17/08

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 3/8 0.38	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 11.71	PURGE PUMP TYPE OR BAILER: Peristaltic Pump

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

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

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 2Ft. OFF	PURGING INITIATED AT: 1538	PURGING ENDED AT: 1620	TOTAL VOLUME PURGED (gallons): 1.2

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	OR
1550	0.3			11.84	4.42	23.69	641	3.95	28	Clear	FETID	14.
1554	0.4			11.83	4.35	23.71	639	3.78	18	"	"	11.
1558	0.5			11.83	4.25	23.93	641	2.54	14	"	"	8.
1603	0.6			11.83	4.17	23.99	645	1.91	16	"	"	1.
1610	0.8			11.84	4.16	23.74	647	1.68	12	"	"	-2.
1615	0.9			11.83	4.12	24.01	648	1.54	8	"	"	-2.

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

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: JACK STRAPER	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1625	SAMPLING ENDED AT: 1732
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute):	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type: ____	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
	2	AG	1 L	None	NA		PAHs 8270C	PP
	2	AG	1 L	H_2SO_4	Added at Lab	Not Recorded	TRPH FL-PRO	PP
	1	PE	250 mL	None	NA		BTEX & MTBE 8260B	PP
	3	CG	40 mL	HCl	Added at Lab	Not Recorded	Sulfate 300.0	RFPP

REMARKS: Field Kits: Fe^{++}: >10 (OUT OF RANGE) H_2S: 1.0 CO_2: 350 DO: 0.05 A_T: 0 140 mg/min

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

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

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

APPENDIX B

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORM

Southeast ACCUTEST

01/12/09

Technical Report for

Solutions-IES, Inc

Cecil Field -Bldg 46; Jacksonville, FL

4080.08A2

Accutest Job Number: F62348

Sampling Dates: 12/17/08 - 12/18/08

Report to:

Solutions-IES, Inc

brebar@solutions-ies.com

ATTN: Carrie Ruhlman

Total number of pages in report: 72

ACCUTEST LABORATORIES 50 YEARS 1956-2006

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 LabLink@11:12 12-Jan-2009

Sample Summary

Solutions-IES, Inc

Job No: F62348

Cecil Field -Bldg 46; Jacksonville, FL
Project No: 4080.08A2

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
F62348-1	12/17/08	16:25 JS	12/19/08	AQ	Ground Water	CEF-046-26I
F62348-2	12/17/08	17:30 JS	12/19/08	AQ	Ground Water	CEF-046-25I
F62348-3	12/18/08	00:00 JS	12/19/08	AQ	Trip Blank Water	TRIP BLANK
F62348-4	12/18/08	13:45 JS	12/19/08	AQ	Field Blank Water	FIELD BLANK
F62348-5	12/18/08	09:50 JS	12/19/08	AQ	Ground Water	CEF-046-14D
F62348-6	12/18/08	08:45 JS	12/19/08	AQ	Ground Water	CEF-046-12I
F62348-7	12/18/08	08:33 JS	12/19/08	AQ	Ground Water	CEF-046-07I
F62348-8	12/18/08	10:08 JS	12/19/08	AQ	Ground Water	CEF-046-02S
F62348-9	12/18/08	10:15 JS	12/19/08	AQ	Ground Water	CEF-046-21I
F62348-10	12/18/08	09:03 JS	12/19/08	AQ	Ground Water	CEF-046-01S
F62348-11	12/18/08	10:55 JS	12/19/08	AQ	Ground Water	CEF-046-05S
F62348-12	12/18/08	11:42 JS	12/19/08	AQ	Ground Water	CEF-046-09I
F62348-13	12/18/08	12:50 JS	12/19/08	AQ	Ground Water	CEF-046-15I

Sample Summary
(continued)

Solutions-IES, Inc

Job No: F62348

Cecil Field -Bldg 46; Jacksonville, FL
Project No: 4080.08A2

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
F62348-14	12/18/08	11:35 JS	12/19/08	AQ	Ground Water	CEF-046-13I
F62348-15	12/18/08	12:55 JS	12/19/08	AQ	Ground Water	CEF-046-06D
F62348-16	12/18/08	13:08 JS	12/19/08	AQ	Ground Water	CEF-046-24D

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Solutions-IES, Inc **Job No:** F62348

Site: Cecil Field -Bldg 46; Jacksonville, FL **Report Date** 1/12/2009 10:45:22

14 Samples, 1 Trip Blank and 1 Field Blank were collected on between 12/17/2008 and 12/18/2008 and were received at Accutest on 12/19/2008 properly preserved, at 4.8 Deg. C and intact. These Samples received an Accutest job number of F62348. 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:** VF834

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F62341-7MS, F62341-7MSD were used as the QC samples indicated.

Sample(s) F62317-4MS, F62362-8MS, F62362-8MSD, F62348-10 have surrogates outside control limits. Probable cause due to matrix interference.

Matrix: AQ **Batch ID:** VN1316

All samples were analyzed within the recommended method holding time.

Sample(s) F62317-4MS, F62317-4MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Sample(s) F62317-4MS, F62362-8MS, F62362-8MSD, F62348-10 have surrogates outside control limits. Probable cause due to matrix interference.

Matrix: AQ **Batch ID:** VN1317

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F62362-8MS, F62362-8MSD were used as the QC samples indicated.

Sample(s) F62317-4MS, F62362-8MS, F62362-8MSD, F62348-10 have surrogates outside control limits. Probable cause due to matrix interference.

Matrix: AQ **Batch ID:** VN1318

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F62348-6MS, F62348-6MSD were used as the QC samples indicated.

Sample(s) F62317-4MS, F62362-8MS, F62362-8MSD, F62348-10 have surrogates outside control limits. Probable cause due to matrix interference.

Matrix: AQ **Batch ID:** VN1319

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F62405-5MS, F62405-5MSD were used as the QC samples indicated.

Sample(s) F62317-4MS, F62362-8MS, F62362-8MSD, F62348-10 have surrogates outside control limits. Probable cause due to matrix interference.

F62348-10 for 4-Bromofluorobenzene: Outside control limits. No sample available for reanalysis.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ **Batch ID:** OP27568

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F62338-2MS, F62338-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F62348-10: Dilution required due to matrix interference.

Matrix: AQ **Batch ID:** OP27584

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) F62348-11MS, F62348-11MSD were used as the QC samples indicated.

Extractables by GC By Method FLORIDA-PRO

Matrix: AQ **Batch ID:** OP27574

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F62391-4MS, F62391-4MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix: AQ **Batch ID:** OP27583

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Sample(s) F62348-11MS, F62348-11MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 300/SW846 9056

Matrix: AQ **Batch ID:** GP12314

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) F62348-4DUP, F62348-4MS were used as the QC samples for Sulfate.

F62348-11 for Sulfate: Estimated value, above calibration range.

F62348-16 for Sulfate: Estimated value, above calibration range.

Matrix: AQ **Batch ID:** GP12327

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) F62304-6MS, F62304-6DUP were used as the QC samples for Sulfate.

RPD(s) for Duplicate for Sulfate are outside control limits for sample GP12327-D1. High RPD due to possible sample nonhomogeneity.

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: January 12, 2009

Svetlana Izosimova, QAO (signature on file)

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	CEF-046-26I		
Lab Sample ID:	F62348-1	**Date Sampled:**	12/17/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0031952.D	1	12/27/08	MM	n/a	n/a	VN1316
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	112%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	90%		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-046-26I		
Lab Sample ID:	F62348-1	**Date Sampled:**	12/17/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17349.D	1	12/26/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.96	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.96	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.96	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		42-108%
321-60-8	2-Fluorobiphenyl	70%		40-106%
1718-51-0	Terphenyl-d14	93%		39-121%

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-046-26I		
Lab Sample ID:	F62348-1	**Date Sampled:**	12/17/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84667.D	1	12/24/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		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-046-26I		
Lab Sample ID:	F62348-1	**Date Sampled:**	12/17/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	278	2.0	1.0	mg/l	1	12/24/08 19:16	MV	EPA 300/SW846 9056

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-046-25I		
Lab Sample ID:	F62348-2	**Date Sampled:**	12/17/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0031957.D	1	12/27/08	MM	n/a	n/a	VN1316
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	107%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	92%		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-046-25I		
Lab Sample ID:	F62348-2	**Date Sampled:**	12/17/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17350.D	1	12/26/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.96	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.96	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-20-3	Naphthalene	0.61	0.96	0.24	ug/l	I
85-01-8	Phenanthrene	0.24 U	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		42-108%
321-60-8	2-Fluorobiphenyl	66%		40-106%
1718-51-0	Terphenyl-d14	100%		39-121%

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-046-25I		
Lab Sample ID:	F62348-2	**Date Sampled:**	12/17/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84668.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
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)	0.17 U	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		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-046-25I		
Lab Sample ID:	F62348-2	**Date Sampled:**	12/17/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	15.0	2.0	1.0	mg/l	1	12/24/08 19:39	MV	EPA 300/SW846 9056

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:	TRIP BLANK		
Lab Sample ID:	F62348-3	**Date Sampled:**	12/18/08
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0031984.D	1	12/29/08	JG	n/a	n/a	VN1317
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	106%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	93%		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:	FIELD BLANK		
Lab Sample ID:	F62348-4	**Date Sampled:**	12/18/08
Matrix:	AQ - Field Blank Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0031982.D	1	12/29/08	JG	n/a	n/a	VN1317
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	101%		76-127%
2037-26-5	Toluene-D8	101%		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:	FIELD BLANK		
Lab Sample ID:	F62348-4	**Date Sampled:**	12/18/08
Matrix:	AQ - Field Blank Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17351.D	1	12/26/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.96	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.96	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-20-3	Naphthalene	0.25	0.96	0.24	ug/l	I
85-01-8	Phenanthrene	0.24 U	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	88%		42-108%
321-60-8	2-Fluorobiphenyl	85%		40-106%
1718-51-0	Terphenyl-d14	99%		39-121%

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:	FIELD BLANK		
Lab Sample ID:	F62348-4	**Date Sampled:**	12/18/08
Matrix:	AQ - Field Blank Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84669.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		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:	FIELD BLANK		
Lab Sample ID:	F62348-4	**Date Sampled:**	12/18/08
Matrix:	AQ - Field Blank Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	1.0 U	2.0	1.0	mg/l	1	12/24/08 20:01	MV	EPA 300/SW846 9056

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-046-14D		
Lab Sample ID:	F62348-5	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0031983.D	1	12/29/08	JG	n/a	n/a	VN1317
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3.5	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	103%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	93%		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-046-14D		
Lab Sample ID:	F62348-5	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17352.D	1	12/26/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.96	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.96	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.96	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		42-108%
321-60-8	2-Fluorobiphenyl	72%		40-106%
1718-51-0	Terphenyl-d14	97%		39-121%

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-046-14D		
Lab Sample ID:	F62348-5	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84670.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
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)	0.17 U	0.25	0.17	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		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-046-14D		
Lab Sample ID:	F62348-5	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	3.4	2.0	1.0	mg/l	1	12/24/08 21:08	MV	EPA 300/SW846 9056

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-046-12I		
Lab Sample ID:	F62348-6	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032006.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	109%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	93%		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-046-12I		
Lab Sample ID:	F62348-6	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17353.D	1	12/26/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.96	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.96	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.96	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		42-108%
321-60-8	2-Fluorobiphenyl	84%		40-106%
1718-51-0	Terphenyl-d14	87%		39-121%

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-046-12I		
Lab Sample ID:	F62348-6	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84671.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.171	0.24	0.16	mg/l	I

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

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

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

Report of Analysis

Client Sample ID:	CEF-046-12I		
Lab Sample ID:	F62348-6	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	50.4	2.0	1.0	mg/l	1	01/01/09 00:44	CC	EPA 300/SW846 9056

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-046-07I		
Lab Sample ID:	F62348-7	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032007.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2	F033112.D	5	12/31/08	SH	n/a	n/a	VF834

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

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	24.1	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	2.3	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	169 [a]	5.0	1.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	109%	87-116%
17060-07-0	1,2-Dichloroethane-D4	114%	111%	76-127%
2037-26-5	Toluene-D8	100%	102%	86-112%
460-00-4	4-Bromofluorobenzene	89%	104%	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-046-07I		
Lab Sample ID:	F62348-7	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17354.D	1	12/26/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.95	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.95	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.95	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.095 U	0.19	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.95	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.95	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.95	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.95	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	56%		42-108%
321-60-8	2-Fluorobiphenyl	54%		40-106%
1718-51-0	Terphenyl-d14	65%		39-121%

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-046-07I		
Lab Sample ID:	F62348-7	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84672.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	53%		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-046-07I		
Lab Sample ID:	F62348-7	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	21.7	2.0	1.0	mg/l	1	01/01/09 13:48	CC	EPA 300/SW846 9056

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-046-02S		
Lab Sample ID:	F62348-8	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032008.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	118%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	93%		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-046-02S		
Lab Sample ID:	F62348-8	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17355.D	1	12/26/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.95	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.95	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.95	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.095 U	0.19	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.95	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.95	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.95	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.95	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		42-108%
321-60-8	2-Fluorobiphenyl	80%		40-106%
1718-51-0	Terphenyl-d14	104%		39-121%

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-046-02S		
Lab Sample ID:	F62348-8	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84673.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.218	0.24	0.16	mg/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		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-046-02S		
Lab Sample ID:	F62348-8	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	293	2.0	1.0	mg/l	1	01/06/09 23:44	CC	EPA 300/SW846 9056

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-046-21I		
Lab Sample ID:	F62348-9	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032009.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	118%		76-127%
2037-26-5	Toluene-D8	98%		86-112%
460-00-4	4-Bromofluorobenzene	93%		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-046-21I		
Lab Sample ID:	F62348-9	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17356.D	1	12/26/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.96	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.96	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.96	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.096 U	0.19	0.096	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.96	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.96	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.96	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.96	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.96	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.96	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		42-108%
321-60-8	2-Fluorobiphenyl	77%		40-106%
1718-51-0	Terphenyl-d14	104%		39-121%

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-046-21I		
Lab Sample ID:	F62348-9	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84677.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		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-046-21I		
Lab Sample ID:	F62348-9	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	76.1	2.0	1.0	mg/l	1	01/07/09 00:11	CC	EPA 300/SW846 9056

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-046-01S		
Lab Sample ID:	F62348-10	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032043.D	5	12/31/08	MM	n/a	n/a	VN1319
Run #2	N0032020.D	20	12/30/08	MM	n/a	n/a	VN1318

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

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	5.9	5.0	2.0	ug/l	
108-88-3	Toluene	1.8 U	5.0	1.8	ug/l	
100-41-4	Ethylbenzene	50.5 [a]	20	8.6	ug/l	
1330-20-7	Xylene (total)	42.4 [a]	60	23	ug/l	I
1634-04-4	Methyl Tert Butyl Ether	38.1 [a]	20	5.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%	107%	87-116%
17060-07-0	1,2-Dichloroethane-D4	121%	117%	76-127%
2037-26-5	Toluene-D8	96%	99%	86-112%
460-00-4	4-Bromofluorobenzene	82% [b]	89%	84-120%

(a) Result is from Run# 2
(b) Outside control limits. No sample available for reanalysis.

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-046-01S		
Lab Sample ID:	F62348-10	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	R17388.D	2	12/27/08	RB	12/23/08	OP27568	SR816
Run #2							

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

BN PAH List

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	1.7	2.0	0.98	ug/l	I
120-12-7	Anthracene	0.98 U	2.0	0.98	ug/l	
56-55-3	Benzo(a)anthracene	0.098 U	0.39	0.098	ug/l	
50-32-8	Benzo(a)pyrene	0.098 U	0.39	0.098	ug/l	
205-99-2	Benzo(b)fluoranthene	0.098 U	0.39	0.098	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.098 U	0.39	0.098	ug/l	
207-08-9	Benzo(k)fluoranthene	0.098 U	0.39	0.098	ug/l	
218-01-9	Chrysene	0.20 U	0.39	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.098 U	0.39	0.098	ug/l	
206-44-0	Fluoranthene	0.49 U	2.0	0.49	ug/l	
86-73-7	Fluorene	2.0 U	2.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.098 U	0.39	0.098	ug/l	
90-12-0	1-Methylnaphthalene	16.0	2.0	0.49	ug/l	
91-57-6	2-Methylnaphthalene	7.8	2.0	0.49	ug/l	
91-20-3	Naphthalene	68.8	2.0	0.49	ug/l	
85-01-8	Phenanthrene	0.49 U	2.0	0.49	ug/l	
129-00-0	Pyrene	0.49 U	2.0	0.49	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		42-108%
321-60-8	2-Fluorobiphenyl	67%		40-106%
1718-51-0	Terphenyl-d14	77%		39-121%

(a) Dilution required due to matrix interference.

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-046-01S		
Lab Sample ID:	F62348-10	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84678.D	10	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	19.4	2.4	1.6	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		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-046-01S		
Lab Sample ID:	F62348-10	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	397	2.0	1.0	mg/l	1	01/09/09 01:29	CC	EPA 300/SW846 9056

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-046-05S		
Lab Sample ID:	F62348-11	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032010.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		87-116%
17060-07-0	1,2-Dichloroethane-D4	121%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	93%		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-046-05S		
Lab Sample ID:	F62348-11	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17337.D	1	12/26/08	RB	12/24/08	OP27584	SR814
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.95	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.95	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.95	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.095 U	0.19	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.95	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.95	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.95	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.95	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		42-108%
321-60-8	2-Fluorobiphenyl	61%		40-106%
1718-51-0	Terphenyl-d14	90%		39-121%

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-046-05S		
Lab Sample ID:	F62348-11	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84654.D	1	12/24/08	SL	12/24/08	OP27583	GOP2192
Run #2							

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

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		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-046-05S		
Lab Sample ID:	F62348-11	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate [a]	562	2.0	1.0	mg/l	1	01/09/09 01:51	CC	EPA 300/SW846 9056

(a) 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-046-09I		
Lab Sample ID:	F62348-12	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032011.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		87-116%
17060-07-0	1,2-Dichloroethane-D4	123%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	89%		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-046-09I		
Lab Sample ID:	F62348-12	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17358.D	1	12/27/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.95	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.95	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.95	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.095 U	0.19	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.95	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.95	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.95	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.95	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	83%		42-108%
321-60-8	2-Fluorobiphenyl	89%		40-106%
1718-51-0	Terphenyl-d14	109%		39-121%

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-046-09I		
Lab Sample ID:	F62348-12	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84679.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
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)	0.439	0.25	0.17	mg/l	

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-046-09I		
Lab Sample ID:	F62348-12	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	34.0	2.0	1.0	mg/l	1	01/09/09 02:14	CC	EPA 300/SW846 9056

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-046-15I		
Lab Sample ID:	F62348-13	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032012.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		87-116%
17060-07-0	1,2-Dichloroethane-D4	125%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	90%		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-046-15I		
Lab Sample ID:	F62348-13	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17359.D	1	12/27/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.95	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.95	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.95	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.095 U	0.19	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.95	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.95	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.95	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.95	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	60%		42-108%
321-60-8	2-Fluorobiphenyl	60%		40-106%
1718-51-0	Terphenyl-d14	92%		39-121%

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-046-15I		
Lab Sample ID:	F62348-13	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84680.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

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

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		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-046-15I		
Lab Sample ID:	F62348-13	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	36.9	2.0	1.0	mg/l	1	01/09/09 02:36	CC	EPA 300/SW846 9056

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-046-13I		
Lab Sample ID:	F62348-14	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032013.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		87-116%
17060-07-0	1,2-Dichloroethane-D4	124%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	91%		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-046-13I		
Lab Sample ID:	F62348-14	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17360.D	1	12/27/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.95	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.95	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.95	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.095 U	0.19	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.95	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.95	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.95	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.95	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		42-108%
321-60-8	2-Fluorobiphenyl	83%		40-106%
1718-51-0	Terphenyl-d14	102%		39-121%

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-046-13I		
Lab Sample ID:	F62348-14	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84681.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.203	0.24	0.16	mg/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		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-046-13I		
Lab Sample ID:	F62348-14	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	32.4	2.0	1.0	mg/l	1	01/09/09 02:59	CC	EPA 300/SW846 9056

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-046-06D		
Lab Sample ID:	F62348-15	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032014.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	2.4	3.0	1.2	ug/l	I
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		87-116%
17060-07-0	1,2-Dichloroethane-D4	126%		76-127%
2037-26-5	Toluene-D8	103%		86-112%
460-00-4	4-Bromofluorobenzene	90%		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-046-06D		
Lab Sample ID:	F62348-15	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17361.D	1	12/27/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.49 U	0.98	0.49	ug/l	
208-96-8	Acenaphthylene	0.49 U	0.98	0.49	ug/l	
120-12-7	Anthracene	0.49 U	0.98	0.49	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	0.049 U	0.20	0.049	ug/l	
207-08-9	Benzo(k)fluoranthene	0.049 U	0.20	0.049	ug/l	
218-01-9	Chrysene	0.098 U	0.20	0.098	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.049 U	0.20	0.049	ug/l	
206-44-0	Fluoranthene	0.25 U	0.98	0.25	ug/l	
86-73-7	Fluorene	0.49 U	0.98	0.49	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.049 U	0.20	0.049	ug/l	
90-12-0	1-Methylnaphthalene	0.25 U	0.98	0.25	ug/l	
91-57-6	2-Methylnaphthalene	0.25 U	0.98	0.25	ug/l	
91-20-3	Naphthalene	0.25 U	0.98	0.25	ug/l	
85-01-8	Phenanthrene	0.25 U	0.98	0.25	ug/l	
129-00-0	Pyrene	0.25 U	0.98	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		42-108%
321-60-8	2-Fluorobiphenyl	63%		40-106%
1718-51-0	Terphenyl-d14	87%		39-121%

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-046-06D		
Lab Sample ID:	F62348-15	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84682.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.238	0.24	0.16	mg/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		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-046-06D		
Lab Sample ID:	F62348-15	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate	10200	2.0	1.0	mg/l	1	01/09/09 03:21	CC	EPA 300/SW846 9056

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-046-24D		
Lab Sample ID:	F62348-16	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0032015.D	1	12/30/08	MM	n/a	n/a	VN1318
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.40 U	1.0	0.40	ug/l	
108-88-3	Toluene	0.35 U	1.0	0.35	ug/l	
100-41-4	Ethylbenzene	0.43 U	1.0	0.43	ug/l	
1330-20-7	Xylene (total)	1.2 U	3.0	1.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.26 U	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		87-116%
17060-07-0	1,2-Dichloroethane-D4	123%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	92%		84-120%

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

Report of Analysis

Client Sample ID:	CEF-046-24D		
Lab Sample ID:	F62348-16	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R17362.D	1	12/27/08	RB	12/23/08	OP27568	SR815
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.48 U	0.95	0.48	ug/l	
208-96-8	Acenaphthylene	0.48 U	0.95	0.48	ug/l	
120-12-7	Anthracene	0.48 U	0.95	0.48	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	0.048 U	0.19	0.048	ug/l	
207-08-9	Benzo(k)fluoranthene	0.048 U	0.19	0.048	ug/l	
218-01-9	Chrysene	0.095 U	0.19	0.095	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.048 U	0.19	0.048	ug/l	
206-44-0	Fluoranthene	0.24 U	0.95	0.24	ug/l	
86-73-7	Fluorene	0.48 U	0.95	0.48	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.048 U	0.19	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-57-6	2-Methylnaphthalene	0.24 U	0.95	0.24	ug/l	
91-20-3	Naphthalene	0.24 U	0.95	0.24	ug/l	
85-01-8	Phenanthrene	0.24 U	0.95	0.24	ug/l	
129-00-0	Pyrene	0.24 U	0.95	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		42-108%
321-60-8	2-Fluorobiphenyl	72%		40-106%
1718-51-0	Terphenyl-d14	95%		39-121%

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-046-24D		
Lab Sample ID:	F62348-16	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
Method:	FLORIDA-PRO SW846 3510C	**Percent Solids:**	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP84683.D	1	12/25/08	SL	12/23/08	OP27574	GOP2192
Run #2							

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

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C8-C40)	0.214	0.24	0.16	mg/l	I

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-046-24D		
Lab Sample ID:	F62348-16	**Date Sampled:**	12/18/08
Matrix:	AQ - Ground Water	**Date Received:**	12/19/08
		Percent Solids:	n/a
Project:	Cecil Field -Bldg 46; Jacksonville, FL		

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Sulfate [a]	1550	2.0	1.0	mg/l	1	01/09/09 03:43	CC	EPA 300/SW846 9056

(a) 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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST.

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Accutest Quote #

SKIFF# 28723

Client / Reporting Information

Company Name: Solutions-IES
Address: 1101 Nowell Rd
City: Raleigh State: NC Zip: 27607
Project Contact: Carrie Ruhlman E-mail:
Phone#: 919 873 1060
Sampler(s) Name(s) (Printed):

Project Information

Project Name: Cecil Field (Bldg 46)
Street:
City: Jacksonville State: FL
Project #: 4080.08AZ.Ceci
Fax #:
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	DAHs (8270)	TRPH (FL-PRO)	DRO+ NRGE (8260)	Sulfate 300.0	VOCs (8260)							Lab Use Only
1	CEF-046-26I	12/17	1625	JS	GW	8			X			X				X	X	X	X									
2	CEF-046-25I	12/17	1730	LH	GW	8			X			X				X	X	X	X									
3	Trip Blank																			X								
4	Field Blank	12/18	1345		WW	8			X			X				X	X	X	X									
5	CEF-046-14D		950		GW	8			X			X				X	X	X	X									
6	CEF-046-12I		0845		GW	8			X			X				X	X	X	X									
7	CEF-046-07I		0833		GW	8			X			X				X	X	X	X									
8	CEF-046-02S		1008		GW	8			X			X				X	X	X	X									
9	CEF-046-21I		1015		GW	8			X			X				X	X	X	X									
10	CEF-046-01S		1123		GW	6			X			X				X	X	X	X									
11	CEF-046-05S		1055		GW	8			X			X				X	X	X	X									
12	CEF-046-09I		1142		GW	8			X			X				X	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

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 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

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	12/18 1405	2	3	12/18/08 1745	4

Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5		6	7		8 12/18/08

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius:

4.1 4

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST.

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

Accutest JOB # F62348 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: Carrie Ruhlman E-mail:
Phone#: 919 873 10100
Sampler(s) Name(s) (Printed):

Project Information

Project Name: Cecil Field (Bldg 46)
Street:
City: Jacksonville State: Fl
Project #: 40801.08A2. Cecil
Fax #:
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	PAHs (8270)	TEPH (FL-PRO)	BTEX+MTBE (8260)	Sulfide (300.0)									Matrix Codes / LAB USE ONLY
13	CEF-046-15I	12/18	1250	LH	GW	8			X			X				X	X	X	X									
14	CEF-046-13I		1135	LH												X	X	X	X									
15	CEF-046-06D		1255	JD												X	X	X	X									
16	CEF-046-24D		1308	JS												X	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

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [x] 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

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	12/18 1400	2	3	12/18 1400	4
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: Cooler Temperature (s) Celsius: _____

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F62348 CLIENT: SolutionsIES PROJECT: Cecil field

DATE/TIME RECEIVED: 12/19/08 0800 # OF COOLERS RECEIVED: 12 COOLER TEMPS: 2.4, 1.8, 3.6, 3.8, 1.2, 2.6, 1.8, 4.2, 3.6, 1.8, 3.4, 4.8

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
- [x] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [x] WET ICE RECEIVED IN COOLER

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

SAMPLE INFORMATION

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

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

MISC. INFORMATION

NUMBER OF ENCORES ? 0

NUMBER OF 5035 FIELD KITS ? 0

NUMBER OF LAB FILTERED METALS ? 0

SUMMARY OF COMMENTS: Sample 6 wet chem bottle does not have time on it time should be 8:45
Did not Receive CEF-046-055 @ 10:55 / Received CEF-46-05T @ 10:55 #11
Received 1 Vial for CEF-046-015 @ 9:03 ~~Sample 8 received 1 vial Partially empty~~ 2 ea
Received 2 vials No Headspace 1 Vial ½ Full for CEF-046-025 1008
Received 5 extra trip Blanks #20, 21, 22, 23, 24

TECHNICIAN SIGNATURE/DATE [signature] 12/19/08 TECHNICIAN SIGNATURE/DATE [signature] 12/19/08

ASBD 12/17/07

APPENDIX C

FOURTH QUARTER AIR SPARGE SYSTEM O&M LOGS

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CEC1

Technician: MILLARD H. SHARP — Time In: 10:30am — RETURN OFFICE
Date: SEPT. 25, 2008 — Time Out: 7:30am — DEPART OFFICE

Sensaphone Panel

	Circle One			
System On Light	(On)	Off		
Phone in Use Light	(On)	Off		
Alarm Light	On	(Off)		
Battery OK Light	(On)	Off		
Temperature Switch	record number:		122°F	°F
Breaker Switch	(up)	down		

Main Control Panel

	Circle One		
Air Compressor Light	(On)	Off	
Process Air High Temperature Light	On	(Off)	
High Pressure Light	On	(Off)	
120 Volt Power Light	(On)	Off	
Building High Temperature Light	On	(Off)	
Motor Fault Light	On	(Off)	

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1	record number:	79°F	°F
Building High Temperature Setting HTS-4	record number:	131°F	°F

Compressor

Start/Stop Light	(On)	Off	Should be red while in operation
Sump Pressure Gauge	record number:	55 PSIG - 90 PSIG	PSI
Line Pressure Gauge	record number:	85 PSIG - 90 PSIG	PSI
Temperature Gauge	record number:	162°F	°F
Separator Differential Gauge	record number:	3.5 PSIG	PSI
Oil Filter Differential Gauge	record number:	1 PSID	PSI - CHANGE OIL FILTER AT 15 PSID. PG 16.
Oil in Sight Glass?	(Yes)	No	FULL TO TOP OF GLASS, INTERIOR CLEAN AND DRY. AIR FILTER CLEAN.

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	3.3-3.8	SCFM	52 PSIG	PSI
Valve 2	(Opened)	Closed	1.25-2.0	SCFM	56 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	18 PSIG	PSI
Valve 4	(Opened)	Closed	0	SCFM	44 PSIG	PSI
Valve 5	(Opened)	Closed	0	SCFM	0 PSIG	PSI
Valve 6	Opened	(Closed)	0	SCFM	0 PSIG	PSI

Air Tank

Tank Pressure Gauge	87 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty
Compressed Air Filter 2 Indicator	(clean)	change	dirty
Compressed Air Filter 3 Indicator	(clean)	change	dirty

MAX GREEN

Comments: GOOD CHECK SHEET. INSPECTION FLOW FROM REAR TO FRONT. TRAILER INTERIOR CLEAN AND DRY. USED OIL FILTER IN PAIL BY DOOR; WOULD YOU LIKE IT DISPOSED? UNIT CYCLED NORMALLY THROUGHOUT VISIT WITHOUT ABNORMAL SOUNDS OR PRESSURE SURGES. TRAILER DOORS RELOCKED PRIOR TO DEPARTURE. INSPECTED EXTERIOR HOSES FOR PRESSURE LEAKS - OK.

TO: MR. BRIAN M. REBAR
SOLUTIONS_IES
919 873-1060
FAX 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP Time In:
Date: OCTOBER 1, 2008 Time Out: 7:30 am DEPARTED OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122 °F	°F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch, Circle One: H O (A)

Other

Exhaust Fan Setting TS-1	record number: 79 °F	°F
Building High Temperature Setting HTS-4	record number: 131 °F	°F

Compressor

Start/Stop Light	(On)	Off	Should be red while in operation
Sump Pressure Gauge	record number: 90 PSIG		PSI
Line Pressure Gauge	record number: 89 PSIG		PSI
Temperature Gauge	record number: 165 °F		°F
Separator Differential Gauge	record number: 3-5 PSIG		PSI
Oil Filter Differential Gauge	record number: 1 PSID		PSI — PG16 CHANGE OIL IN FILTER AT 15PSID
Oil in Sight Glass? OIL AT TOP OF SIGHTGLASS	(Yes)	No	INTERIOR CLEAN AND DRY; AIR FILTER CLEAN

Manifolds

	Circle One		Flow		Pressure	
Valve 1*	(Opened)	Closed	4.9	SCFM	65 PSIG	PSI
Valve 2*	(Opened)	Closed	3.5	SCFM	65 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0 PSIG	PSI
Valve 4**	(Opened)	Closed	0.5	SCFM	65 PSIG	PSI
Valve 5**	(Opened)	Closed	.5	SCFM	65 PSIG	PSI
Valve 6	Opened	(Closed)	0	SCFM	0	PSI

1, 2, 4, 5 STABILIZED AT 65 PSIG AT DEPARTURE.

WHAT ARE PLANS FOR 3 + 6?

Air Tank

Tank Pressure Gauge	88 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty
Compressed Air Filter 2 Indicator	(clean)	change	dirty
Compressed Air Filter 3 Indicator	(clean)	change	dirty

EACH MAX GREEN

Comments: SYSTEM OPERATING AND PRESSURE CYCLING ON ARRIVAL. EXTERIOR HOSES NO PRESSURE LEAKS. INTERIOR CLEAN AND DRY.
*ADJUSTED VALVE TO PROVIDE 65 PSIG WHEN SYSTEM CYCLES TO MAX
VALVES EXTREMLY SENSITIVE TO ADJUSTMENT. VALVES 4 + 5 VERY DIFFICULT TO ADJUST TO ACHIEVE REQUIRED PRESSURE.

VALVE/GAGE 5 CONSISTENTLY LOST PRESSURE. OBSERVED GAGES BEFORE DEPARTING, ≈ 45 MIN. 60

VALVE 5 RELUCTANT TO STABILIZE, BELIEVE SOMETHING NOT CORRECT IN VALVE 5 LINE.

TO: MS. CARRIE RUHLMAN
SOLUTIONS-IES, INC.
919 873-1060
FAX: 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP
Date: OCTOBER 9, 2008

Time In: 12:15pm RETURNED OFFICE
Time Out: 7:30am DEPARTED OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122 °F	°F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H | O | (A)

Other

Exhaust Fan Setting TS-1	record number:	79°F	°F
Building High Temperature Setting HTS-4	record number:	131°F	°F

Compressor

Start/Stop Light	(On)	Off	Should be red while in operation
Sump Pressure Gauge	record number:	90 PSIG	PSI
Line Pressure Gauge	record number:	88 PSIG	PSI
Temperature Gauge	record number:	168°F	°F
Separator Differential Gauge	record number:	4 PSIG	PSI
Oil Filter Differential Gauge	record number:	1 PSID	PSI
Oil in Sight Glass? OIL FULL TO TOP	(Yes)	No	INTERIOR CLEAN AND DRY AIR FILTER CLEAN

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	4.0	SCFM	65 PSIG	PSI
Valve 2	(Opened)	Closed	2.5	SCFM	65 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0 PSIG	PSI
Valve 4	(Opened)	Closed	.5	SCFM	65 PSIG	PSI
Valve 5	Opened	Closed	.5	SCFM	65 PSIG	PSI
Valve 6	Opened	(Closed)	0	SCFM	0	PSI

Air Tank

Tank Pressure Gauge	88 PSIG			PSI
Auto Drain Functioning?	(Yes)	No		
Compressed Air Filter 1 Indicator	(clean)	change	dirty	EACH GAGE
Compressed Air Filter 2 Indicator	(clean)	change	dirty	MAX GREEN
Compressed Air Filter 3 Indicator	(clean)	change	dirty	

Comments: SYSTEM NOT OPERATING UPON ARRIVAL. CONTACTED BRIAN REBAR WITH NOTIFICATION AND TO OBTAIN STARTUP PROCEDURES. EXTERIOR HOSES-NO LEAKS. ADJUSTED #1, #2, #5 TO 65 PSIG. #5 REMAINS VERY DIFFICULT TO ADJUST AND BALANCE. REMAINED ONSITE TO VERIFY PRESSURE BALANCES.

TO: MS. CARRIE RUHLMAN
SOLUTIONS-IES, INC.
919 873-1060
FAX: 919 873-1074

OCT-09-08 11:54A P.01

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP | Time In: 10:30am RETURN OFFICE
Date: OCTOBER 16, 2008 | Time Out: 7:15 am DEPARTED OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122°F	°F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1	record number: 79°F	°F
Building High Temperature Setting HTS-4	record number: 131°F	°F

Compressor

Start/Stop Light	(On)	Off	Should be red while in operation
Sump Pressure Gauge	record number: 90 PSIG		PSI
Line Pressure Gauge	record number: 89 PSIG		PSI
Temperature Gauge	record number: 166°F		°F
Separator Differential Gauge	record number: 3 PSIG		PSI
Oil Filter Differential Gauge	record number: 1 PSID		PSI
Oil in Sight Glass? OIL FULL TO TOP	(Yes)	No	INSIDE CLEAN AND DRY. AIR FILTER LIGHT GREY

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	4.5	SCFM	65 PSIG	PSI
Valve 2	(Opened)	Closed	3.0	SCFM	65 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0	PSI
Valve 4	(Opened)	Closed	.5	SCFM	65 PSIG	PSI
Valve 5	Opened	Closed	.75	SCFM		PSI
Valve 6	Opened	(Closed)	0	SCFM	0	PSI

Air Tank

Tank Pressure Gauge	89 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty
Compressed Air Filter 2 Indicator	(clean)	change	dirty
Compressed Air Filter 3 Indicator	(clean)	change	dirty

MAX GREEN EACH GAGE

Comments: SYSTEM OPERATING NORMALLY AT ARRIVAL, EXTERIOR HOSES NO AIR LEAKS, INTERIOR CLEAN AND DRY. ADJUSTED #2 + #5 TO 65 PSIG. #5 REMAINS DIFFICULT TO ADJUST TO STABLE 65 PSIG; PRESSURE UPON ARRIVAL 50 PSIG. OBSERVED GAGES FOR 15 MINUTES PRIOR TO DEPARTURE TO VERIFY ADJUSTMENT BALANCE

TO: MS. CARRIE RUHLMAN
SOLUTIONS-IES, INC.
919 873-1060
FAX: 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CEC1

Technician: MILLARD H. SHARP
Date: OCTOBER 23, 2008
Time In: 10:00am RETURNED OFFICE
Time Out: 7:15am DEPARTED OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122°F	°F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1	record number:	79°F	°F
Building High Temperature Setting HTS-4	record number:	131°F	°F

Compressor

Start/Stop Light	(On) Off	Should be red while in operation	
Sump Pressure Gauge	record number:	90 PSIG	PSI
Line Pressure Gauge	record number:	89 PSIG	PSI
Temperature Gauge	record number:	168°F	°F
Separator Differential Gauge	record number:	3 PSIG	PSI
Oil Filter Differential Gauge	record number:	1 PSID	PSI
Oil in Sight Glass? OIL TO TOP OF SIGHT GLASS	(Yes) No	INTERIOR CLEAN AND DRY. AIR FILTER LIGHT GREY.	

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	4.5	SCFM	65 PSIG	PSI
Valve 2	(Opened)	Closed	3.25	SCFM	65 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0	PSI
Valve 4	(Opened)	Closed	.5	SCFM	65 PSIG	PSI
Valve 5	(Opened)	Closed	3.75	SCFM	65 PSIG	PSI
Valve 6	Opened	(Closed)	0	SCFM	0	PSI

Air Tank

Tank Pressure Gauge	89 PSIG			PSI
Auto Drain Functioning?	(Yes)	No		
Compressed Air Filter 1 Indicator	(clean)	change	dirty	MAX GREEN
Compressed Air Filter 2 Indicator	(clean)	change	dirty	EACH GAGE
Compressed Air Filter 3 Indicator	(clean)	change	dirty	

Comments: SYSTEM OPERATING ON ARRIVAL, EXTERIOR HOSES NO AIR LEAKS, INTERIOR CLEAN AND DRY. * LINE #5 STILL NOT HOLDING SPEC. PRESSURE. LINE 5 PRESSURE ON ARRIVAL 38 PSIG. ADJUSTED VALVE, SIGHT GLASS IMMEDIATELY FILLED WITH AIR BUBBLES. ADJUSTED #5 TO 65 PSIG. OBSERVED GAGES FOR 30 MINUTES BEFORE DEPARTURE TO VERIFY OPERATION. FLUID INSIDE LINE #5 SIGHT GLASS CONTINUES TO HAVE SIGNIFICANT AIR BUBBLES AT DEPARTURE.

* PLEASE NOTE COMMENTS PERTAINING TO LINE #5. SOMETHING APPEARS TO BE ABNORMAL.

TO: MS. CARRIE RUHLMAN
SOLUTIONS - IES, INC.
919 873-1060
FAX: 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP — Time In: 10:00 AM RETURN OFFICE
Date: OCT 30, 2008 — Time Out: 7:15 AM DEPART OFFICE

Sensaphone Panel

	Circle One		
System On Light	(On)	Off	
Phone in Use Light	(On)	Off	
Alarm Light	On	(Off)	
Battery OK Light	(On)	Off	
Temperature Switch	record number:	122°F	°F
Breaker Switch	(up)	down	

Main Control Panel

	Circle One		
Air Compressor Light	(On)	Off	
Process Air High Temperature Light	On	(Off)	
High Pressure Light	On	(Off)	
120 Volt Power Light	(On)	Off	
Building High Temperature Light	On	(Off)	
Motor Fault Light	On	(Off)	

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1	record number:	79°F	°F
Building High Temperature Setting HTS-4	record number:	131°F	°F

Compressor

Start/Stop Light	(On)	Off	Should be red while in operation
Sump Pressure Gauge	record number:	91 PSIG	PSI
Line Pressure Gauge	record number:	89 PSIG	PSI
Temperature Gauge	record number:	163°F	°F
Separator Differential Gauge	record number:	3 PSIG	PSI
Oil Filter Differential Gauge	record number:	1 PSID	PSI
Oil in Sight Glass? OIL LEVEL TO TOP OF GLASS	(Yes)	No	INTERIOR CLEAN AND DRY. AIR FILTER MEDIUM GREY.

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	5.5	SCFM	65 PSIG	PSI
Valve 2	(Opened)	Closed	3.25	SCFM	65 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0	PSI
Valve 4	(Opened)	Closed	.6	SCFM	65 PSIG	PSI
Valve 5	(Opened)	Closed	3.5	SCFM	67 PSIG	PSI
Valve 6	Opened	(Closed)	0	SCFM	0	PSI

Air Tank

Tank Pressure Gauge	90 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty
Compressed Air Filter 2 Indicator	(clean)	change	dirty
Compressed Air Filter 3 Indicator	(clean)	change	dirty

ALL GAGES MAX GREEN.

Comments: SYSTEM OPERATING ON ARRIVAL. EXTERIOR HOSES NO LEAKS. INTERIOR CLEAN AND DRY. #5 FOUND AT PROPER PRESSURE THIS VISIT; HOWEVER, INTERIOR OF #5 SIGHT GLASS VERY CLOUDY WITH TAN COLORED LIQUID. INTERIOR FLOW FLOAT ALMOST HIDDEN. OBSERVED #1-5 GAGES 15 MINUTES PRIOR TO DEPARTURE TO VERIFY BALANCE.

TO: MS. CARRIE RUHLMAN
SOLUTIONS - IES, INC.
919 873-1060
FAX: 919 873-1074

OCT-30-08 09:44A P.01

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD N. SHARP
Date: NOVEMBER 5, 2008
Time In: 10:30 am RETURN OFFICE
Time Out: 7:30 am DEPART OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number:	122°F °F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1 HES-4	record number:	79°F	°F
Building High Temperature Setting	record number:	131°F	°F

Compressor

Start/Stop Light	(On) Off	Should be red while in operation	
Sump Pressure Gauge	record number:	90 PSIG	PSI
Line Pressure Gauge	record number:	88 PSIG	PSI
Temperature Gauge	record number:	167°F	°F
Separator Differential Gauge	record number:	2.5 PSIG	PSI
Oil Filter Differential Gauge	record number:	1 PSID	PSI
Oil in Sight Glass? OIL AT TOP OF SIGHT GLASS	(Yes) No	INTERIOR CLEAN, DRY, NO LEAKS AIR FILTER MEDIUM GREY	

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	6.5	SCFM	65 PSIG	PSI
Valve 2	(Opened)	Closed	3.0	SCFM	65 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0	PSI
Valve 4	(Opened)	Closed	.6	SCFM	65 PSIG	PSI
Valve 5	(Opened)	Closed	3.5	SCFM	65 PSIG	PSI
Valve 6	Opened	(Closed)	0	SCFM	0	PSI

Air Tank

Tank Pressure Gauge	87 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty
Compressed Air Filter 2 Indicator	(clean)	change	dirty
Compressed Air Filter 3 Indicator	(clean)	change	dirty

ALL GAGES MAX GREEN

Comments: SYSTEM OPERATING UPON ARRIVAL INTERIOR CLEAN AND DRY. EXTERIOR HOSES NOT LEAKING. ADJUSTED #1 FOR 65 PSIG. FLUID INSIDE #5 SIGHT GLASS CONTINUES TO BE ORANGE/TAN COLOR ALMOST OPAQUE. OBSERVED GAGES 15 MINUTES BEFORE DEPARTURE TO VERIFY BALANCE.

TO: MS. CARRIE RUHLMAN
SOLUTIONS - IES, INC.
919 873-1060
FAX: 919 873-1074

NOV-06-08 11:58A P.01

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP
Date: NOVEMBER 12, 2008
Time In:
Time Out: 9:15am DEPARTED OFFICE

Sensaphone Panel

	Circle One	
System On Light	On	Off
Phone in Use Light	On	Off
Alarm Light	On	Off
Battery OK Light	On	Off
Temperature Switch	record number: 122°F	°F
Breaker Switch	up	down

Main Control Panel

	Circle One	
Air Compressor Light	On	Off
Process Air High Temperature Light	On	Off
High Pressure Light	On	Off
120 Volt Power Light	On	Off
Building High Temperature Light	On	Off
Motor Fault Light	On	Off

Main Switch — Circle One: H O A

Other

Exhaust Fan Setting TS-1	record number:	79°F	°F
Building High Temperature Setting HTS-4	record number:	131°F	°F

Compressor

Start/Stop Light	On	Off	Should be red while in operation
Sump Pressure Gauge	record number:	91 PSIG	PSI
Line Pressure Gauge	record number:	88 PSIG	PSI
Temperature Gauge	record number:	173°F	°F
Separator Differential Gauge	record number:	3 PSIG	PSI
Oil Filter Differential Gauge	record number:	1 PSID	PSI
Oil in Sight Glass? OIL TO TOP OF SIGHT GLASS	Yes	No	INTERIOR CLEAN AND DRY AIR FILTER MEDIUM GREY

Manifolds

	Circle One		Flow		Pressure	
Valve 1	Opened	Closed	6.0	SCFM	67 PSIG	PSI
Valve 2	Opened	Closed	3.0	SCFM	65 PSIG	PSI
Valve 3	Opened	Closed	0	SCFM	0	PSI
Valve 4	Opened	Closed	.6	SCFM	63 PSIG	PSI
Valve 5	Opened	Closed	3.25	SCFM	65 PSIG	PSI
Valve 6	Opened	Closed	0	SCFM	0	PSI

Air Tank

Tank Pressure Gauge	88 PSIG			PSI
Auto Drain Functioning?	Yes	No		
Compressed Air Filter 1 Indicator	clean	change	dirty	MAX GREEN
Compressed Air Filter 2 Indicator	clean	change	dirty	ALL GAGES,
Compressed Air Filter 3 Indicator	clean	change	dirty	

Comments: SYSTEM OPERATING UPON ARRIVAL. EXTERIOR HOSES NO LEAKS. INTERIOR CLEAN AND DRY. CONSIDERABLE VERTICAL MOTION VALVE 1 FLOAT. VALVE 5 SIGHT GLASS FLUID STILL TAN COLOR BUT CLEARER THAN PREVIOUS WEEK. CONSIDERABLE AIR BUBBLING IN FLUID INSIDE VALVE 5 SIGHT GLASS. OBSERVED GAGES FOR 15 MINUTES BEFORE DEPARTURE TO VERIFY BALANCE.

TO: MS. CARRIE RUHLMAN
SOLUTIONS-IES, INC.
919 873-1060
FAX 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP | Time In: 10:30 AM RETURN OFFICE
Date: NOVEMBER 19 2008 | Time Out: 7:30 AM DEPART TO OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122°F	°F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1 HTS-4	record number: 79°F	°F
Building High Temperature Setting	record number: 131°F	°F

Compressor

Start/Stop Light	(On) Off	Should be red while in operation
Sump Pressure Gauge	record number: 92 PSIG	PSI
Line Pressure Gauge	record number: 90 PSIG	PSI
Temperature Gauge	record number: 163°F	°F
Separator Differential Gauge	record number: 3 PSIG	PSI
Oil Filter Differential Gauge	record number: 1 PSID	PSI
Oil in Sight Glass? OIL TO TOP OF SIGHT GLASS	(Yes) No	INTERIOR CLEAN AND DRY AIR FILTER MEDIUM GREY.

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	6.5	SCFM	67 PSIG	PSI
Valve 2	(Opened)	Closed	3.0	SCFM	65 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0	PSI
Valve 4	(Opened)	Closed	.5	SCFM	64 PSIG	PSI
Valve 5	(Opened)	Closed	3.5	SCFM	63 PSIG	PSI
Valve 6	Opened	(Closed)		SCFM		PSI

Air Tank

Tank Pressure Gauge	90 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty
Compressed Air Filter 2 Indicator	(clean)	change	dirty
Compressed Air Filter 3 Indicator	(clean)	change	dirty

ALL GAGES MAY GREEN

Comments: SYSTEM OPERATING ON ARRIVAL. INTERIOR CLEAN AND DRY. EXTERIOR HOSES NO AIR LEAKS AND FLOAT NOT MOVING WHEN SYSTEM CYCLES. AS SIGHT GLASS FLUID TAN COLOR AND TRANSLUCENT; FLOAT DIFFICULT TO OBSERVE.

TO: MS. CARRIE RUHLMAN
SOLUTIONS-IES, INC.
919 873-1060
FAX: 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP
Date: NOVEMBER 25, 2008
Time In: 10:45 am — ARTHUR OFFICE
Time Out: 7:30 pm — DEPARTED OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122°F	°F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1 HTS-4	record number: 79°F	°F
Building High Temperature Setting	record number: 131°F	°F

Compressor

Start/Stop Light	(On)	Off	Should be red while in operation
Sump Pressure Gauge	record number: 93 PSIG		PSI
Line Pressure Gauge	record number: 90 PSIG		PSI
Temperature Gauge	record number: 163°F		°F
Separator Differential Gauge	record number: 3 PSIG		PSI
Oil Filter Differential Gauge	record number: 1 PSID		PSI
Oil in Sight Glass? OIL TO TOP OF SIGHT GLASS	(Yes)	No	INTERIOR CLEAN AND DRY AIRFILTER MEDIUM GREY

Manifolds

	Circle One		Flow		Pressure		
Valve 1	(Opened)	Closed	3.0	SCFM	65 PSIG	PSI	FLOAT IN SIGHT GLASS RAPIDLY BOUNCING
Valve 2	(Opened)	Closed	2.25	SCFM	65 PSIG	PSI	
Valve 3	Opened	(Closed)	0	SCFM	0	PSI	
Valve 4	(Opened)	Closed	.5	SCFM	65 PSIG	PSI	FLOAT IN SIGHT GLASS NOT MOVING
Valve 5	(Opened)	Closed	1.0	SCFM	65 PSIG	PSI	
Valve 6	Opened	(Closed)	0	SCFM	0	PSI	

Air Tank

Tank Pressure Gauge	89 PSIG			PSI
Auto Drain Functioning?	(Yes)	No		
Compressed Air Filter 1 Indicator	(clean)	change	dirty	ALL GAGES
Compressed Air Filter 2 Indicator	(clean)	change	dirty	MAX GREEN
Compressed Air Filter 3 Indicator	(clean)	change	dirty	

Comments: SYSTEM NOT OPERATING ON ARRIVAL. RESTARTED USING PROVIDED STARTUP PROCEDURES. WAITED 15 MINUTES FOR SYSTEM TO STABILIZE PRIOR TO INSPECTION. INTERIOR CLEAN AND DRY. EXTERIOR HOSES NO LEAKS. ADJUSTED LINES 1, 2, 4, 5 FLUID IN SIGHT GLASS 5 CONTINUES TO BE TRANSLUCENT ORANGE COLOR; FLOAT VERY DIFFICULT TO OBSERVE. VALVE 4 DIFFICULT TO ADJUST TO MAINTAIN REQUIRED PRESSURE RANGE. REMAINED ON SITE 15 MINUTES AFTER VALVE ADJUSTMENTS TO VERIFY SYSTEM BALANCE.

TO: MS. CARRIE RUHLMAN
SOLUTIONS - IES, INC.
919 873-1060
FAX: 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP
Date: DECEMBER 3, 2008
Time In: 10:30 am
Time Out: 7:30 am
RETURN OFFICE DEPART OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122°F	°F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1 HTS-4	record number: 79°F	°F
Building High Temperature Setting	record number: 131°F	°F

Compressor

Start/Stop Light	(On) Off	Should be red while in operation
Sump Pressure Gauge	record number: 94 PSIG	PSI
Line Pressure Gauge	record number: 90 PSIG	PSI
Temperature Gauge	record number: 164°F	°F
Separator Differential Gauge	record number: 3PSIG	PSI
Oil Filter Differential Gauge	record number: 1 PSID	PSI
Oil in Sight Glass? OIL TO TOP OF SIGHT GLASS	(Yes)	No AIR FILTER MEDIUM GREY INTERIOR CLEAN AND DRY

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	2.8	SCFM	64PSIG	PSI
Valve 2	Opened	(Closed)	2.75	SCFM	65PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0	PSI
Valve 4	(Opened)	Closed	0	SCFM	65PSIG	PSI
Valve 5	Opened	Closed	3.0	SCFM	65PSIG	PSI
Valve 6	Opened	(Closed)	0	SCFM	0	PSI

- FLOAT IN #4 SEE BOTTOM-OUT AND NOT MOVING DURING SYSTEM CHARGE

Air Tank

Tank Pressure Gauge	90 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty ALL GAGES
Compressed Air Filter 2 Indicator	(clean)	change	dirty MAX GREEN
Compressed Air Filter 3 Indicator	(clean)	change	dirty

Comments: ADJUSTED VALVES 2 & 5. #5 PRESSURE ON ARRIVAL 48 PSIG. FLUID IN #5 SIGHT GLASS REMAINS CLOUDY ORANGE COLOR; FLOAT ALMOST IMPOSSIBLE TO VIEW. SYSTEM OPERATING ON ARRIVAL. EXTERIOR HOSES NO LEAKS. INTERIOR CLEAN AND DRY. OBSERVED GAGES 15 MINUTES PRIOR TO DEPARTURE TO VERIFY BALANCE.

TO: MS. CARRIE RUHLMAN
SOLUTIONS - IES, INC.
919 873-1060
FAX: 919 873-1074

Dec-03-08 11:13A P.01

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP — Time In: 10:30 AM (RETURN OFFICE)
Date: DECEMBER 10, 2008 — Time Out: 8:00 AM (DEPART OFFICE)

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122°F	°F
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1 HTS-4	record number: 79°F	°F
Building High Temperature Setting	record number: 131°F	°F

Compressor

Start/Stop Light	(On)	Off	Should be red while in operation
Sump Pressure Gauge	record number: 91 PSIG		PSI
Line Pressure Gauge	record number: 89 PSIG		PSI
Temperature Gauge	record number: 172°F		°F
Separator Differential Gauge	record number: 3 PSIG		PSI
Oil Filter Differential Gauge	record number: 1 PSID		PSI
Oil in Sight Glass? OIL LEVEL TO TOP OF GLASS	(Yes)	No	AIR FILTER MEDIUM GREY, INTERIOR CLEAN AND DRY.

Manifolds

	Circle One		Flow		Pressure	
Valve 1	(Opened)	Closed	3.25	SCFM	65 PSIG	PSI
Valve 2	(Opened)	Closed	2.5	SCFM	63 PSIG	PSI
Valve 3	Opened	(Closed)	0	SCFM	0	PSI
Valve 4	(Opened)	Closed	.75	SCFM	65 PSIG	PSI — FLOAT ONLY MOVES 1/8" DURING SYSTEM CYCLE.
Valve 5	(Opened)	Closed	3.0	SCFM	63 PSIG	PSI
Valve 6	Opened	(Closed)	0	SCFM	0	PSI

Air Tank

Tank Pressure Gauge	90 PSIG			PSI
Auto Drain Functioning?	(Yes)	No		
Compressed Air Filter 1 Indicator	(clean)	change	dirty	ALL GAGES
Compressed Air Filter 2 Indicator	(clean)	change	dirty	MAX GREEN.
Compressed Air Filter 3 Indicator	(clean)	change	dirty	

Comments: SYSTEM OPERATING ON ARRIVAL. EXTERIOR HOSES NO LEAKS. INTERIOR CLEAN AND DRY. ADJUSTED #4. AS SIGHT GLASS FLUID CONTINUES TO BE ORANGE/TAN COLOR WITH CONSIDERABLE QTY OF AIR BUBBLES INSIDE. AFTER WEEKLY INSPECTION DEACTIVATED SYSTEM VIA PROVIDED PROCEDURES PER DEC 3 EMAIL INSTRUCTIONS.

TO: MS. CARRIE RUNLMAN
SOLUTIONS - IES, INC.
919 873-1060
FAX: 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP
Date: DECEMBER 22, 2008
Time In: 12:30 pm RETURN OFFICE
Time Out: 9:30 am DEPART OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122 °F	
Breaker Switch	(up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1	record number: 79 °F	°F
Building High Temperature Setting HTS-4	record number: 132 °F	°F

Compressor

Start/Stop Light	(On)	Off	Should be red while in operation
Sump Pressure Gauge	record number: 92 PSIG		PSI
Line Pressure Gauge	record number: 90 PSIG		PSI
Temperature Gauge	record number: 163 °F		°F
Separator Differential Gauge	record number: 3 PSIG		PSI
Oil Filter Differential Gauge	record number: 0 PSID		PSI
Oil in Sight Glass? OIL TO TOP OF SIGHT GLASS	(Yes)	No	INTERIOR CLEAN AND DRY. AIR FILTER MEDIUM GRAY.

OIL FILTER RECENTLY REPLACED

Manifolds

	Circle One		Flow		Pressure		
Valve 1	(Opened)	Closed	2.5	SCFM	65 PSIG	PSI	
Valve 2	(Opened)	Closed	2.75	SCFM	65 PSIG	PSI	
Valve 3	Opened	(Closed)	0	SCFM	0	PSI	
Valve 4	(Opened)	Closed	0	SCFM	65 PSIG	PSI	— FLOAT IN #4 CONTINUES TO NOT MOVE DURING SYSTEM CYCLE.
Valve 5	Opened	Closed		SCFM		PSI	
Valve 6	(Opened)	Closed	0	SCFM	0	PSI	

Air Tank

Tank Pressure Gauge	90 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty
Compressed Air Filter 2 Indicator	(clean)	change	dirty
Compressed Air Filter 3 Indicator	(clean)	change	dirty

ALL GAGES MAX GREEN.

Comments: SYSTEM OPERATING ON ARRIVAL. EXTERIOR HOSES NO AIR LEAKS. SPARE PARTS BOXES MOVED AND OPENED. GAGES 1, 4 AND 5 READING 75 PSIG ON ARRIVAL. ADJUSTED 1, 4 AND 5 TO SPEC PRESSURE. FLUID IN #5 CONTINUES TO BE OPAQUE ORANGE COLORATION. OBSERVED GAGES 15 MINUTES PRIOR TO DEPARTURE TO VERIFY SYSTEM BALANCE. REMOVED AND DISCARDED 2 USED OIL FILTERS.

To: Ms. Carrie Rullman
Solutions - IES, Inc.
919 873-1060
FAX: 919 873-1074

AIR SPARGE SYSTEM OPERATION AND MAINTENANCE FORM
CECIL FIELD - BUILDING 46
JACKSONVILLE, FL
4080.08A2.CECI

Technician: MILLARD H. SHARP — Time In: 11:00 am — RETURN OFFICE
Date: DECEMBER 30, 2008 — Time Out: 8:00 am — DEPART OFFICE

Sensaphone Panel

	Circle One	
System On Light	(On)	Off
Phone in Use Light	(On)	Off
Alarm Light	On	(Off)
Battery OK Light	(On)	Off
Temperature Switch	record number: 122°F	°F
Breaker Switch	(Up)	down

Main Control Panel

	Circle One	
Air Compressor Light	(On)	Off
Process Air High Temperature Light	On	(Off)
High Pressure Light	On	(Off)
120 Volt Power Light	(On)	Off
Building High Temperature Light	On	(Off)
Motor Fault Light	On	(Off)

Main Switch — Circle One: H O (A)

Other

Exhaust Fan Setting TS-1 HTS-4	record number: 79°F	°F
Building High Temperature Setting	record number: 132°F	°F

Compressor

Start/Stop Light	(On) Off	Should be red while in operation
Sump Pressure Gauge	record number: 92 PSIG	PSI
Line Pressure Gauge	record number: 90 PSIG	PSI
Temperature Gauge	record number: 164°F	°F
Separator Differential Gauge	record number: 3 PSIG	PSI
Oil Filter Differential Gauge	record number: 0 PSID	PSI
Oil in Sight Glass? OIL TO TOP OF SIGHT GLASS	(Yes) No	INTERIOR CLEAN AND DRY. AIR FILTER MEDIUM GRAY.

Manifolds

	Circle One		Flow		Pressure		
Valve 1	(Opened)	Closed	2.0	SCFM	64 PSIG	PSI	
Valve 2	(Opened)	Closed	2.75	SCFM	66 PSIG	PSI	
Valve 3	Opened	(Closed)	0	SCFM	0	PSI	
Valve 4	(Opened)	Closed	0	SCFM	65 PSIG	PSI	- FLOAT IN #4 CONTINUES NOT TO MOVE DURING SYSTEM CYCLE
Valve 5	(Opened)	Closed	1.5	SCFM	65 PSIG	PSI	
Valve 6	Opened	(Closed)	0	SCFM	0	PSI	

Air Tank

Tank Pressure Gauge	90 PSIG		PSI
Auto Drain Functioning?	(Yes)	No	
Compressed Air Filter 1 Indicator	(clean)	change	dirty
Compressed Air Filter 2 Indicator	(clean)	change	dirty
Compressed Air Filter 3 Indicator	(clean)	change	dirty

ALL GAGES MAY GREEN.

Comments: SYSTEM OPERATING ON ARRIVAL. EXTERIOR HOSES NO AIR LEAKS. INTERIOR CLEAN AND DRY. ADJUSTED VALVE 4 AND VALVE 5 TO OBTAIN SPEC PRESSURE. FLUID IN #5 SIGHT GLASS CONTINUES TO BE AN ORANGE OPAQUE COLOR. FLUID IN SIGHT GLASS #5 ABOVE FLOAT HAS A CONSIDERABLE QUANTITY OF AIR BUBBLES (ACTIVE) WHICH APPEARS TO PREVENT FLOAT FROM RISING. OBSERVED GAGES FOR 15 MINUTES PRIOR TO DEPARTURE TO VERIFY PRESSURE BALANCE.

TO: MS. CARRIE RUHLMAN
SOLUTIONS - IES INC.
919 873-1060
FAX: 919 873-1074

Dec-30-08 11:50A P.01