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NAS CECIL FIELD, FL
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OCTOBER 2008 NATURAL ATTENUATION MONITORING REPORT FOR DAY TANK 1 NAS CECIL FIELD FL

12/22/2008

SOLUTIONS-IES INC

OCTOBER 2008
NATURAL ATTENUATION
MONITORING REPORT

DAY TANK 1
FORMER NAS CECIL FIELD
JACKSONVILLE, FL

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

Prepared for:

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DECEMBER 22, 2008

Solutions-IES
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SIGNATURE PAGE

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

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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 at Day Tank 1 (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 semi-annual groundwater monitoring. This Natural Attenuation Monitoring Report details the activities performed at the site in October 2008.

1.1 SITE LOCATION AND DESCRIPTION

The Day Tank 1 site is located at the former NAS Cecil Field, approximately 1/8 mile south of the "A" Avenue gate on Jet Road. A site map is included as **Figure 1**.

1.2 SITE HISTORY

A biosparge/vapor extraction system was previously in operation at the site to reduce the concentrations of petroleum-related contaminants in the groundwater and soil to target levels specified in Chapter 62-777 Florida Administrative Code (FAC). Due to the substantial reduction of contaminant concentrations in wells within the area of influence of the remediation system, the Florida Department of Environmental Protection (FDEP) approved deactivating the remediation system on August 15, 2003. Post-active remediation monitoring in accordance with Chapter 62-770.750, FAC began at that time.

In October 2006, the FDEP issued a Natural Attenuation Monitoring Plan Approval Order (Order) for the site. The sampling schedule includes semi-annual monitoring of 12 wells for volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs). Eight of the 12 wells previously served as vapor extraction wells during active remediation.

2.0 GROUNDWATER MONITORING SUMMARY

During this monitoring event, the wells listed below were gauged for water levels and sampled for laboratory analysis of VOCs and PAHs. Locations of the wells at this site are described in the table below and illustrated on **Figure 2**.

Monitoring Well	Location
CEF-293-2	Within plume
CEF-293-9	Within plume
CEF-293-13	Perimeter well
CEF-293-22	Perimeter well
VEW-1	Within plume
VEW-2	Within plume
VEW-3	Perimeter well
VEW-4	Within plume
VEW-5	Perimeter well
VEW-6	Perimeter well
VEW-7	Within plume
VEW-8	Within plume

2.2 WATER LEVEL MEASUREMENTS

Depth-to-groundwater and light non-aqueous phase liquid (LNAPL) measurements were recorded on October 11, 2008 prior to sampling at the Day Tank 1 site. The top-of-casing elevations, historical depth-to-LNAPL measurements, depth-to-water measurements, historical calculated LNAPL thickness, and calculated water level elevations are provided in **Table 1**.

As a result of previous construction activities, soil excavation, and the relocation of several wells at the site, top of casing elevations for wells have changed from the original surveyed elevations. A survey of all wells on the site was conducted by Arc Surveying & Mapping, Inc. on October 14, 2008. Results of the survey have been incorporated into **Table 1** and were used to prepare a groundwater contour map, showing the groundwater elevations measured during the October 2008 event (**Figure 3**). Groundwater at the site appears to be flowing in a southeast direction. The certified survey map can be found in **Appendix A**.

No LNAPL was detected in any wells during the October 2008 sampling event. LNAPL has not been observed at the site since September 2003. Well VEW-1 had 0.5 ft. of LNAPL at that time. LNAPL has

not been detected in any other wells at the site since 2000, when 5.52 ft. was measured in VEW-2.

2.3 GROUNDWATER SAMPLING

2.3.1 Methodology

Groundwater sampling was conducted at the Day Tank 1 site on October 11, 2008. Four monitoring wells (CEF-293-2, CEF-293-9, CEF-293-13 and CEF-293-22) and eight former vapor extraction wells (VEW-1, VEW-2, VEW-3, VEW-4, VEW-5, VEW-6, VEW-7 and VEW-8) were purged and sampled using low-flow methodology.

Wells were purged immediately before sampling using a low-flow peristaltic pump, at a rate equal to or less than the groundwater recharge rate, until field parameters (temperature, pH, conductivity, turbidity, dissolved oxygen [DO] and oxidation reduction potential [ORP]) stabilized. Water levels in the wells were continuously monitored to maintain minimal drawdown.

Groundwater sampling was conducted in general accordance with applicable state and local guidelines, and the Solutions-IES Work Plan (February 2008). All samples collected were stored on ice and delivered to Accutest Laboratories Southeast, Inc. (Accutest), 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 on **Table 2**. Copies of the groundwater sampling logs, including all field parameter measurements, are provided in **Appendix B**.

2.3.2 Laboratory Analyses

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

- VOCs by EPA Method 8260B
- PAHs by EPA Method 8270C

A Level II data report and electronic data deliverables (EDDs) were provided by the laboratory and can be found in **Appendix C**.

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 # 1). The drum was staged in the IDW Storage Building (Building 536). The NAS Jacksonville Public Works Department (PWD-JAX) was notified on October 13, 2008 that the drum was being stored in the building. The non-hazardous data package for disposal was forwarded to PWD-JAX on November 14, 2008.

3.0 SAMPLING AND ANALYTICAL RESULTS

3.1 DATA VALIDATION

Accutest data analysts validated all data according to laboratory standard operating procedures (SOPs). A limited data validation was also performed by Solutions-IES. The data validation evaluated data completeness, holding time compliance, laboratory blank contamination and detection limits.

As indicated in the laboratory case narrative (**Appendix C**), all method specified calibrations and QC criteria were met except for MS/MSD recoveries for 2-chloroethyl vinyl ether. This irregularity was attributed to matrix interference. The validation process also resulted in several data qualifiers. These are shown with the analyte concentrations in **Table 3**.

3.2 GROUNDWATER RESULTS

Well locations and constituent concentrations in excess of the regulatory limits are shown on **Figure 4**. Naphthalene and 1,2,4-trimethylbenzene were the only constituents detected above the groundwater clean-up target levels (GCTLs) in October 2008. Vapor extraction wells VEW-4 and VEW-7 both yielded naphthalene concentrations above the GCTL (14 μg/L) by EPA Method 8260B. VEW-4 had a naphthalene concentration of 16.5 μg/L, and VEW-7 had a naphthalene concentration of 99.7 μg/L. Well VEW-7 also exceeded the GCTL for naphthalene by EPA Method 8270C. The concentration in this well was 35.8 μg/L. However, none of the concentrations exceeded the Natural Attenuation Default Source Concentration (NADSC) of 140 μg/L. **Figure 5** illustrates the naphthalene concentrations in these two wells by EPA Method 8260B.

Several wells that have exhibited concentrations of naphthalene above the GCTL in the recent past, had results below the applicable limit during the October 2008 sampling event. These wells include CEF-293-2, CEF-293-9 and VEW-8 (EPA Method 8260B). Concentrations in these wells appear to be continuing to decrease over time. Complete historical sampling results can be found in **Table 3**.

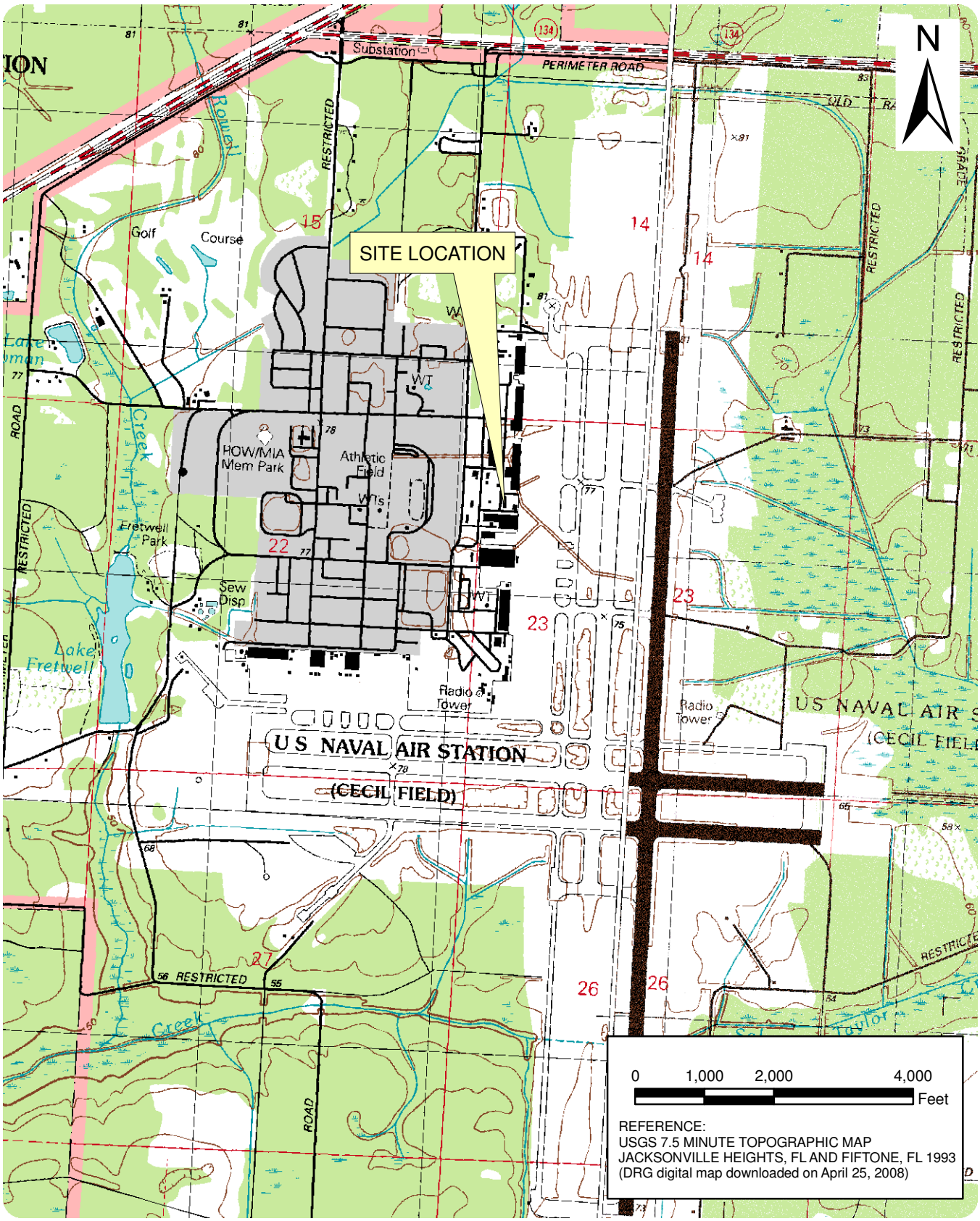
Samples collected from wells VEW-1, VEW-4 and VEW-7 during the October sampling event, all had 1,2,4-trimethylbenzene concentrations greater than the GCTL (10 µg/L). The laboratory results indicated concentrations of 13.8 µg/L, 18.1 µg/L and 31.1 µg/L in VEW-1, VEW-4 and VEW-7, respectively. All of these values are less than the corresponding NADSC (100 µg/L). Historical results for 1,2,4-trimethylbenzene in these wells has been variable though the concentration in VEW-4 has been consistently decreasing since 2007 (see **Figure 6**). No other constituents of concern were detected above their respective GCTLs.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Water level data suggests that groundwater at this site flows in a southeasterly direction. When measuring water levels, no LNAPL was detected. Naphthalene was detected at levels above the GCTL in wells VEW-4 and VEW-7 during the October sampling event, and 1,2,4-trimethylbenzene was detected above the GCTL in the wells VEW-1, VEW-4 and VEW-7. Neither of these constituents exceeded the respective NADSCs. Concentrations of both constituents have decreased since 2006 in VEW-7, though concentrations of both constituents have increased since the last sampling event. Well VEW-4 shows decreasing trends in both 1,2,4-trimethylbenzene and naphthalene, and the concentration of 1,2,4-trimethylbenzene in well VEW-1 appears to be decreasing.

No changes have been made to the Natural Attenuation Monitoring Plan Approval Order since Solutions-IES was awarded this contract in January 2008. The October 2008 sampling was conducted in general accordance with the Order and previous sampling events. Based on analytical results obtained to date, Solutions-IES recommends continuing semi-annual water level measurements and groundwater sampling at wells CEF-293-2, CEF-293-9, CEF-293-13, CEF-293-22, VEW-1, VEW-2, VEW-3, VEW-4, VEW-5, VEW-6, VEW-7 and VEW-8 for VOCs by EPA Method 8260B and PAHs by EPA Method 8270C. Solutions-IES recommends eliminating LNAPL measurements since free product has not been detected in over 5 years.

FIGURES



PROJECT NUMBER	DRAFTER	CHECKED BY	PROJECT MANAGER	DATE	FILE
4080.08A2.CECI	JC	JD	CR	11/07/08	DayTank1.mxd

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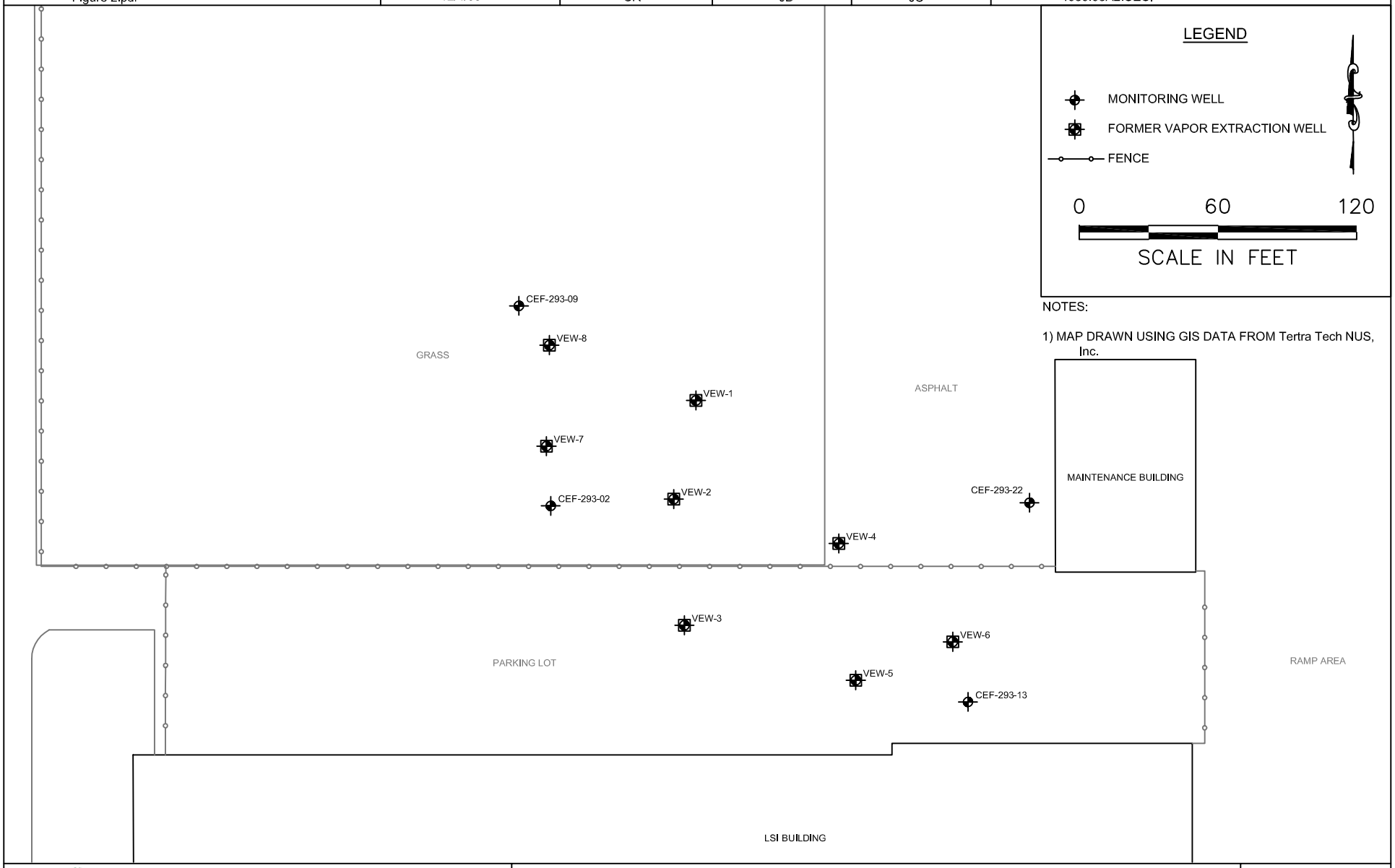
SITE LOCATION MAP
DAY TANK 1 - NAS CECIL FIELD
JACKSONVILLE, FL

FIGURE:
1

FILE	DATE	PROJECT MANAGER	CHECKED BY	DRAFTER	PROJECT NUMBER
Figure 2.pdf	12/4/08	CR	JD	JC	4080.08A2.CECI



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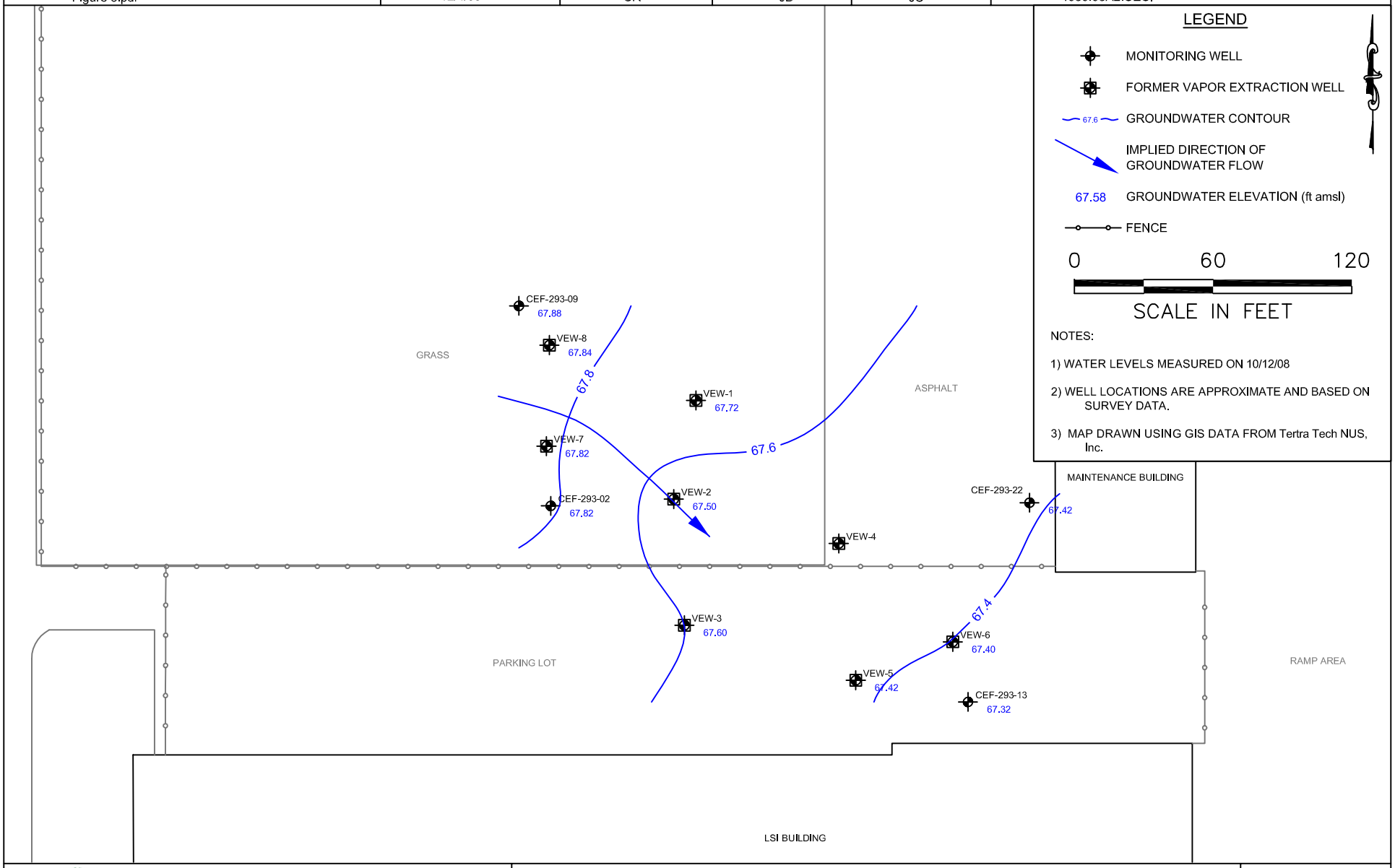
WELL LOCATION MAP
DAY TANK 1 - NAS CECIL FIELD
JACKSONVILLE, FL
OCTOBER 2008

FIGURE:
2

FILE	DATE	PROJECT MANAGER	CHECKED BY	DRAFTER	PROJECT NUMBER
Figure 3.pdf	12/4/08	CR	JD	JC	4080.08A2.CECI



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GROUNDWATER CONTOUR MAP
DAY TANK 1 - NAS CECIL FIELD
JACKSONVILLE, FL
OCTOBER 2008

FIGURE:

3

FILE	DATE	PROJECT MANAGER	CHECKED BY	DRAFTER	PROJECT NUMBER
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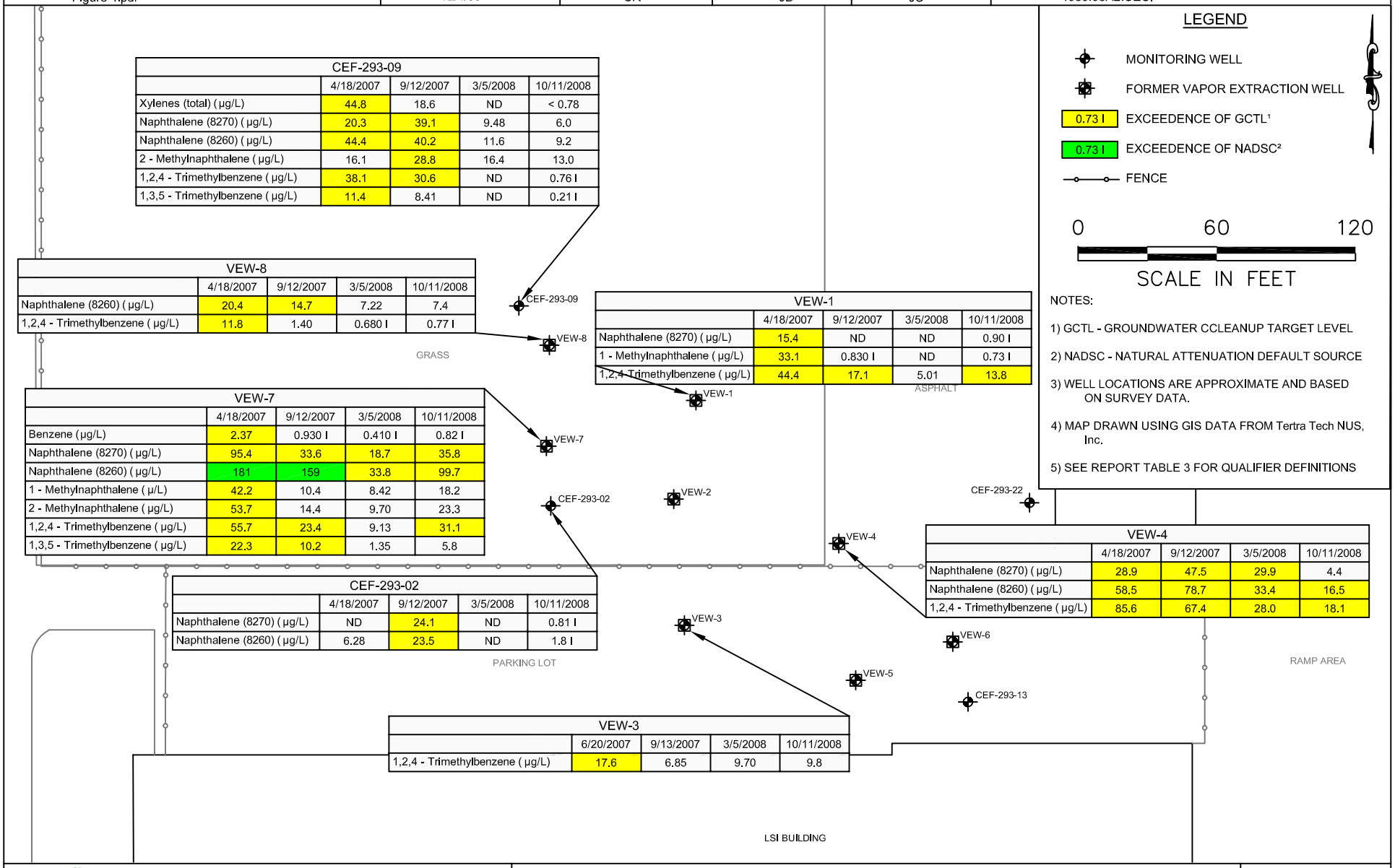

CEF-293-09	4/18/2007	9/12/2007	3/5/2008	10/11/2008
Xylenes (total) (µg/L)	44.8	18.6	ND	< 0.78
Naphthalene (8270) (µg/L)	20.3	39.1	9.48	6.0
Naphthalene (8260) (µg/L)	44.4	40.2	11.6	9.2
2 - Methylnaphthalene (µg/L)	16.1	28.8	16.4	13.0
1,2,4 - Trimethylbenzene (µg/L)	38.1	30.6	ND	0.76 I
1,3,5 - Trimethylbenzene (µg/L)	11.4	8.41	ND	0.21 I

VEW-8	4/18/2007	9/12/2007	3/5/2008	10/11/2008
Naphthalene (8260) (µg/L)	20.4	14.7	7.22	7.4
1,2,4 - Trimethylbenzene (µg/L)	11.8	1.40	0.680 I	0.77 I

VEW-1	4/18/2007	9/12/2007	3/5/2008	10/11/2008
Naphthalene (8270) (µg/L)	15.4	ND	ND	0.90 I
1 - Methylnaphthalene (µg/L)	33.1	0.830 I	ND	0.73 I
1,2,4 Trimethylbenzene (µg/L)	44.4	17.1	5.01	13.8

VEW-7	4/18/2007	9/12/2007	3/5/2008	10/11/2008
Benzene (µg/L)	2.37	0.930 I	0.410 I	0.82 I
Naphthalene (8270) (µg/L)	95.4	33.6	18.7	35.8
Naphthalene (8260) (µg/L)	181	159	33.8	99.7
1 - Methylnaphthalene (µ/L)	42.2	10.4	8.42	18.2
2 - Methylnaphthalene (µg/L)	53.7	14.4	9.70	23.3
1,2,4 - Trimethylbenzene (µg/L)	55.7	23.4	9.13	31.1
1,3,5 - Trimethylbenzene (µg/L)	22.3	10.2	1.35	5.8

VEW-4	4/18/2007	9/12/2007	3/5/2008	10/11/2008
Naphthalene (8270) (µg/L)	28.9	47.5	29.9	4.4
Naphthalene (8260) (µg/L)	58.5	78.7	33.4	16.5
1,2,4 - Trimethylbenzene (µg/L)	85.6	67.4	28.0	18.1

CEF-293-02	4/18/2007	9/12/2007	3/5/2008	10/11/2008
Naphthalene (8270) (µg/L)	ND	24.1	ND	0.81 I
Naphthalene (8260) (µg/L)	6.28	23.5	ND	1.8 I

VEW-3	6/20/2007	9/13/2007	3/5/2008	10/11/2008
1,2,4 - Trimethylbenzene (µg/L)	17.6	6.85	9.70	9.8

LEGEND

- MONITORING WELL
- FORMER VAPOR EXTRACTION WELL
- 0.73 I — EXCEEDENCE OF GCTL[1]
- 0.73 I — EXCEEDENCE OF NADSC[2]
- FENCE

0 60 120

SCALE IN FEET

NOTES:

1) GCTL - GROUNDWATER CCLEANUP TARGET LEVEL

2) NADSC - NATURAL ATTENUATION DEFAULT SOURCE

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

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

5) SEE REPORT TABLE 3 FOR QUALIFIER DEFINITIONS

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CONCENTRATION MAP
DAY TANK 1 - NAS CECIL FIELD
JACKSONVILLE, FL
OCTOBER 2008

FIGURE:

4

FIGURE 5
Historical Naphthalene Concentrations (8260B)

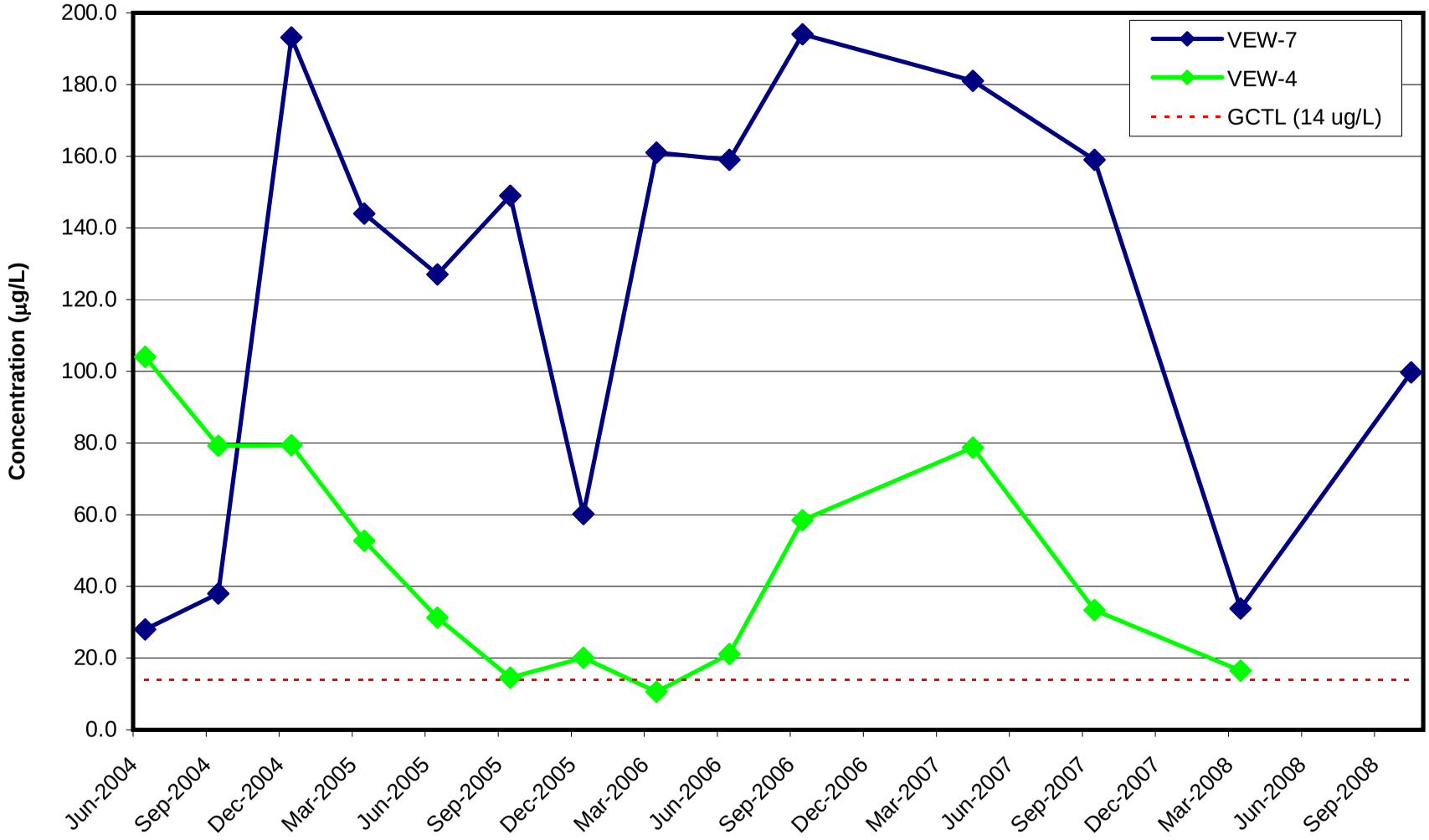
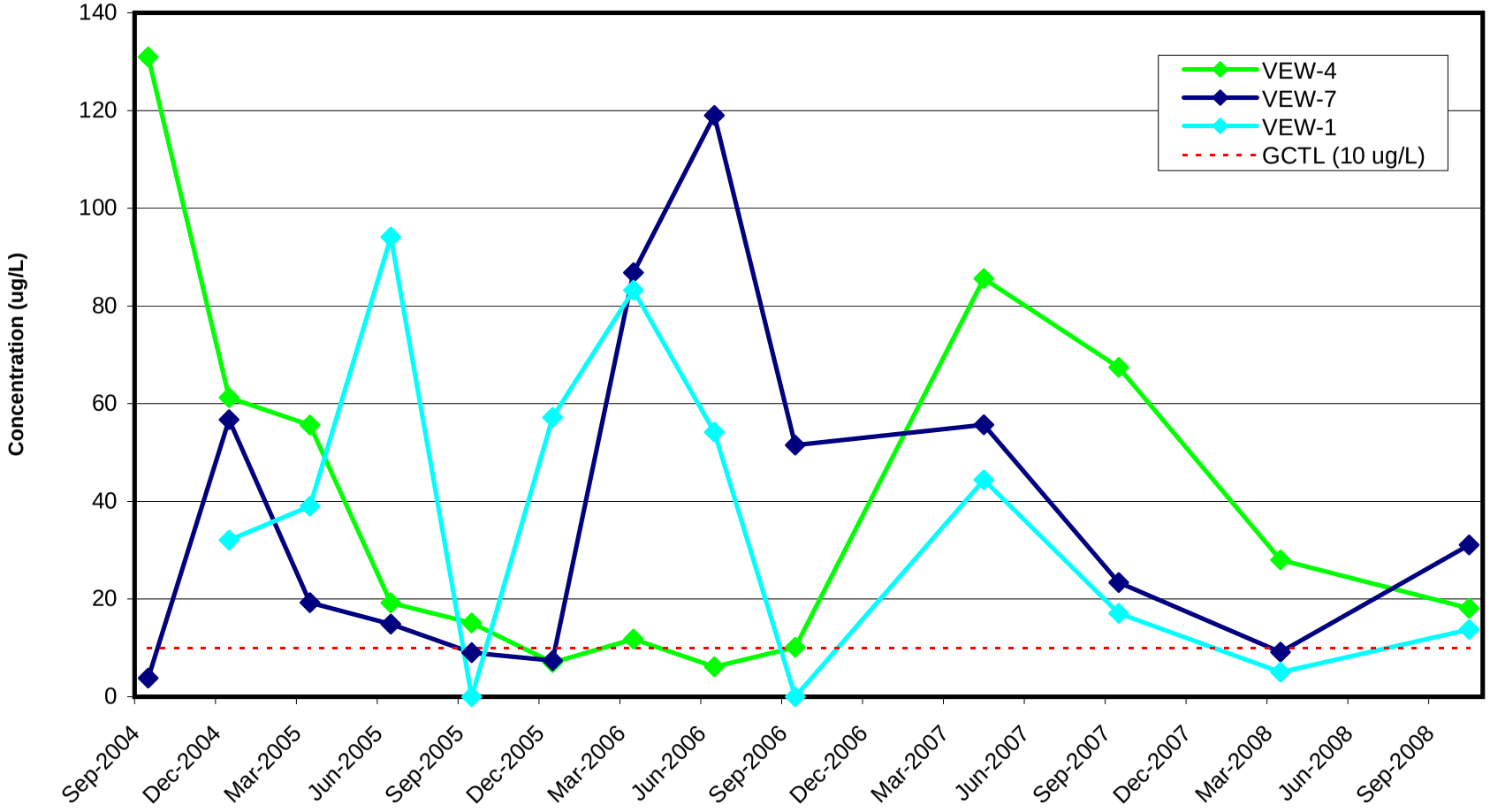


FIGURE 6
Historical 1,2,4-Trimethylbenzene Concentrations



TABLES

TABLE 1
DEPTH TO GROUNDWATER/LNAPL MEASUREMENTS

DAY TANK 1
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well Identification	Date	Top of Casing Elevation (Feet)	Depth to LNAPL (Feet)	Depth to Water (Feet)	LNAPL Thickness (Feet)	Water Level Elevation (Feet)
CEF-293-02	12/08/05	NA	none present	8.60	0.00	NA
	04/18/07		none present	10.25	0.00	NA
	06/20/07		none present	9.72	0.00	NA
	09/12/07		none present	9.37	0.00	NA
	03/05/08		none present	8.44	0.00	NA
	10/11/08	75.57	none present	7.75	0.00	67.82
CEF-293-09	06/13/00	77.36	none present	9.93	0.00	67.43
	03/11/03		none present	6.09	0.00	71.27
	06/06/03		none present	7.85	0.00	69.51
	09/02/03		none present	7.29	0.00	70.07
	12/12/03		none present	9.62	0.00	67.74
	03/17/04		none present	9.84	0.00	67.52
	06/09/04		none present	9.83	0.00	67.53
	09/20/04		none present	6.30	0.00	71.06
	12/02/04		none present	8.75	0.00	68.61
	03/11/05		none present	8.79	0.00	68.57
	06/08/05		none present	8.65	0.00	68.71
	09/08/05		none present	7.08	0.00	70.28
	12/08/05		none present	8.72	0.00	68.64
	03/28/06		none present	8.90	0.00	68.46
	06/08/06		none present	9.86	0.00	67.50
	09/24/06		none present	9.95	0.00	67.41
	04/18/07		none present	11.13	0.00	66.23
	06/20/07		NM	NM	NM	NM
	09/12/07		none present	10.28	0.00	67.08
	03/05/08		none present	9.35	0.00	68.01
	10/11/08	76.55	none present	8.67	0.00	67.88
CEF-293-13	12/08/05	75.97	none present	7.92	0.00	68.05
	04/19/07		none present	9.53	0.00	66.44
	06/20/07		none present	8.99	0.00	66.98
	09/13/07		none present	8.64	0.00	67.33
	03/05/08		none present	7.80	0.00	68.17
	10/11/08	74.51	none present	7.19	0.00	67.32
CEF-293-22	06/13/00	75.95	none present	8.88	0.00	67.07
	03/11/03		none present	8.33	0.00	67.62
	06/07/03		none present	7.00	0.00	68.95
	09/02/03		none present	6.34	0.00	69.61
	12/12/03		none present	8.65	0.00	67.30
	03/17/04		none present	8.80	0.00	67.15
	06/09/04		none present	8.56	0.00	67.39
	09/20/04		none present	5.60	0.00	70.35
	12/02/04		none present	7.90	0.00	68.05
	03/11/05		none present	7.90	0.00	68.05
	06/08/05		none present	7.71	0.00	68.24
	09/08/05		none present	6.31	0.00	69.64
	12/08/05		none present	7.79	0.00	68.16
	03/28/06		none present	7.98	0.00	67.97
	06/08/06		none present	8.82	0.00	67.13
	09/24/06		none present	8.84	0.00	67.11
	04/18/07		none present	9.36	0.00	66.59
	06/20/07		none present	8.85	0.00	67.10
	09/12/07		none present	8.54	0.00	67.41
	03/05/08		none present	7.68	0.00	68.27
	10/11/08	74.48	none present	7.06	0.00	67.42
VEW-01	06/13/00	NA	8.60	10.89	2.29	NA
	03/11/03		5.08	5.80	0.72	NA
	06/07/03		6.90	7.40	0.50	NA
	09/02/03		4.40	4.90	0.50	NA
	12/12/03		none present	NM	0.00	NA
	03/17/04		none present	NM	0.00	NA
	06/09/04		none present	8.40	0.00	NA
	09/20/04		none present	4.90	0.00	NA
	12/02/04		none present	7.44	0.00	NA
	03/11/05		none present	7.39	0.00	NA
	06/08/05		none present	7.24	0.00	NA
	09/08/05		none present	5.63	0.00	NA
	12/08/05		none present	7.32	0.00	NA
	03/28/06		none present	7.58	0.00	NA
	06/08/06		none present	8.40	0.00	NA
	09/24/06		none present	8.44	0.00	NA
	04/18/07		none present	8.94	0.00	NA
	06/20/07		none present	8.39	0.00	NA
	09/12/07		none present	8.10	0.00	NA
	03/05/08		none present	7.17	0.00	NA
	10/11/08	74.25	none present	6.53	0.00	67.72

TABLE 1
DEPTH TO GROUNDWATER/LNAPL MEASUREMENTS

DAY TANK 1
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well Identification	Date	Top of Casing Elevation (Feet)	Depth to LNAPL (Feet)	Depth to Water (Feet)	LNAPL Thickness (Feet)	Water Level Elevation (Feet)
VEW-02	06/13/00	75.86	7.50	13.02	5.52	62.84
	03/11/03		none present	4.71	0.00	71.15
	06/07/03		none present	6.50	0.00	69.36
	09/02/03		none present	5.96	0.00	69.90
	12/12/03		none present	11.04	0.00	64.82
	03/17/04		none present	8.40	0.00	67.46
	06/09/04		none present	8.54	0.00	67.32
	09/20/04		none present	5.01	0.00	70.85
	12/02/04		none present	7.61	0.00	68.25
	03/11/05		none present	7.52	0.00	68.34
	06/08/05		none present	7.39	0.00	68.47
	09/08/05		none present	5.81	0.00	70.05
	12/08/05		none present	7.32	0.00	68.54
	03/28/06		none present	7.66	0.00	68.20
	06/08/06		none present	8.58	0.00	67.28
	09/24/06		none present	9.63	0.00	66.23
	04/18/07		none present	9.11	0.00	66.75
	06/20/07		none present	8.59	0.00	67.27
	09/12/07		none present	8.24	0.00	67.62
	03/05/08		none present	7.33	0.00	68.53
	10/11/08	74.38	none present	6.88	0.00	67.50
VEW-03	06/13/00	75.28	none present	8.05	0.00	67.23
	12/11/02		none present	6.23	0.00	69.05
	03/11/03		none present	4.07	0.00	71.21
	06/06/03		none present	6.10	0.00	69.18
	09/02/03		none present	5.35	0.00	69.93
	12/12/03		none present	7.80	0.00	67.48
	03/17/04		none present	8.02	0.00	67.26
	06/09/04		none present	8.01	0.00	67.27
	09/20/04		none present	4.30	0.00	70.98
	12/02/04		none present	7.10	0.00	68.18
	03/11/05		none present	7.05	0.00	68.23
	06/08/05		none present	6.90	0.00	68.38
	09/08/05		none present	5.35	0.00	69.93
	12/08/05		none present	6.90	0.00	68.38
	03/28/06		none present	7.15	0.00	68.13
	06/08/06		none present	8.01	0.00	67.27
	09/24/06		none present	8.09	0.00	67.19
	04/16/07		none present	8.61	0.00	66.67
	06/20/07		none present	8.09	0.00	67.19
	09/13/07		none present	7.73	0.00	67.55
	03/05/08		none present	6.83	0.00	68.45
	10/11/08	73.74	none present	6.14	0.00	67.60
VEW-04	06/13/00	75.54	none present	8.38	0.00	67.16
	03/11/03		none present	4.66	0.00	70.88
	06/07/03		none present	6.50	0.00	69.04
	09/02/03		none present	5.80	0.00	69.74
	12/12/03		none present	8.12	0.00	67.42
	03/17/04		none present	8.30	0.00	67.24
	06/09/04		none present	8.37	0.00	67.17
	09/20/04		none present	4.95	0.00	70.59
	12/02/04		none present	7.50	0.00	68.04
	03/11/05		none present	7.45	0.00	68.09
	06/08/05		none present	7.20	0.00	68.34
	09/08/05		none present	5.74	0.00	69.80
	12/08/05		none present	7.32	0.00	68.22
	03/28/06		none present	7.50	0.00	68.04
	06/08/06		none present	8.34	0.00	67.20
	09/24/06		none present	9.40	0.00	66.14
	04/18/07		none present	8.90	0.00	66.64
	06/20/07		none present	8.40	0.00	67.14
	09/12/07		none present	8.03	0.00	67.51
	03/05/08		none present	7.18	0.00	68.36
	10/11/08	74.07	none present	6.52	0.00	67.55

TABLE 1
DEPTH TO GROUNDWATER/LNAPL MEASUREMENTS

DAY TANK 1
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

Well Identification	Date	Top of Casing Elevation (Feet)	Depth to LNAPL (Feet)	Depth to Water (Feet)	LNAPL Thickness (Feet)	Water Level Elevation (Feet)
VEW-05	06/13/00	74.63	none present	7.53	0.00	67.10
	03/11/03		none present	3.80	0.00	70.83
	06/06/06		none present	6.75	0.00	67.88
	09/02/03		none present	4.95	0.00	69.68
	12/12/03		none present	7.40	0.00	67.23
	03/17/04		none present	7.50	0.00	67.13
	06/09/04		none present	7.55	0.00	67.08
	09/20/04		none present	4.10	0.00	70.53
	12/02/04		none present	6.80	0.00	67.83
	03/11/05		none present	6.25	0.00	68.38
	06/08/05		none present	6.10	0.00	68.53
	09/08/05		none present	4.70	0.00	69.93
	12/08/05		none present	6.20	0.00	68.43
	03/28/06		none present	6.35	0.00	68.28
	06/08/06		none present	7.22	0.00	67.41
	09/24/06		none present	7.30	0.00	67.33
	04/19/07		none present	7.80	0.00	66.83
	06/20/07		none present	7.27	0.00	67.36
	09/13/07		none present	6.93	0.00	67.70
	03/05/08		none present	6.08	0.00	68.55
	10/11/08	72.84	none present	5.42	0.00	67.42
VEW-06	12/08/05	74.31	none present	6.20	0.00	68.11
	04/19/07		none present	8.80	0.00	65.51
	06/20/07		none present	7.26	0.00	67.05
	09/13/07		none present	6.92	0.00	67.39
	03/05/08		none present	6.08	0.00	68.23
	10/11/08	72.84	none present	5.44	0.00	67.40
VEW-07	06/13/00	76.44	none present	9.06	0.00	67.38
	03/11/03		none present	5.01	0.00	71.43
	06/07/03		none present	6.97	0.00	69.47
	09/04/03		none present	6.45	0.00	69.99
	12/12/03		none present	8.90	0.00	67.54
	03/17/04		none present	9.00	0.00	67.44
	06/09/04		none present	8.99	0.00	67.45
	09/20/04		none present	5.39	0.00	71.05
	12/02/04		none present	8.37	0.00	68.07
	03/11/05		none present	7.96	0.00	68.48
	06/08/05		none present	7.90	0.00	68.54
	09/08/05		none present	6.25	0.00	70.19
	12/08/05		none present	7.91	0.00	68.53
	03/28/06		none present	8.00	0.00	68.44
	06/08/06		none present	9.03	0.00	67.41
	09/24/06		none present	9.11	0.00	67.33
	04/18/07		none present	9.67	0.00	66.77
	06/20/07		none present	9.07	0.00	67.37
	09/12/07		none present	8.71	0.00	67.73
	03/05/08		none present	7.80	0.00	68.64
	10/11/08	74.94	none present	7.12	0.00	67.82
VEW-08	12/08/05	76.43	none present	7.84	0.00	68.59
	04/18/07		none present	9.55	0.00	66.88
	06/20/07		none present	8.98	0.00	67.45
	09/12/07		none present	8.65	0.00	67.78
	03/05/08		none present	7.74	0.00	68.69
	10/11/08	74.92	none present	7.08	0.00	67.84

LNAPL = Light Non-Aqueous Phase Liquid
NA = Not available/Not applicable
NM = Not Measured
Elevation is referenced to National Geodetic Vertical Datum (NGVD) 1929
Depth to LNAPL is measured from top of casing
Depth to water is measured from top of casing
Red Elevation = surveyed 10/14/08 and used from 10/11/08 forward

TABLE 2
FIELD ANALYTICAL RESULTS

DAY TANK 1
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

	Date	pH (S.U.)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Temperature (^{o}C)
CEF-293-02	12/8/2005	5.35	0.31	1.60	83.20	22.82
	4/18/2007	4.40	0.155	0.24	-65.00	22.25
	9/12/2007	5.19	0.170	0.40	-78.90	27.46
	3/6/2008	5.06	0.173	0.50	-38.30	20.78
	10/11/2008	3.35	0.102	0.70	21.70	25.45
CEF-293-09	1/25/2000	5.99	0.088	NM	NM	21.40
	3/11/2003	5.90	0.29	4.29	177.00	20.85
	6/6/2003	6.00	0.472	0.00	-26.00	23.26
	9/2/2003	5.84	0.730	0.93	-90.00	26.10
	12/12/2003	5.86	0.998	0.01	-41.00	23.22
	3/17/2004	5.40	0.279	1.00	NM	21.10
	6/9/2004	5.61	0.280	0.26	-109.60	24.03
	9/20/2004	5.66	0.283	0.15	-148.80	25.79
	12/2/2004	5.82	0.342	0.19	-196.90	24.97
	3/11/2005	8.34	0.240	1.49	-118.00	22.08
	6/8/2005	5.44	0.263	0.23	-196.50	23.67
	9/8/2005	5.25	0.526	0.69	-249.90	25.97
	12/8/2005	5.84	0.343	0.72	-34.50	22.72
	3/28/2006	4.76	0.285	0.27	3.50	22.23
	6/8/2006	4.52	0.262	0.45	25.90	26.00
	9/24/2006	5.28	0.243	0.32	-93.80	26.62
	4/18/2007	5.50	0.234	0.56	-160.90	22.48
	9/12/2007	5.50	0.270	1.26	-86.20	28.55
	3/6/2008	5.60	0.275	0.95	-95.00	22.54
	10/11/2008	5.60	0.224	0.12	-148.40	27.77
CEF-293-13	12/8/2005	5.38	0.322	0.95	124.00	22.88
	4/19/2007	4.67	0.190	0.69	33.30	21.04
	9/13/2007	5.29	0.165	0.83	42.90	27.82
	3/5/2008	4.91	0.137	0.79	-41.60	21.24
	10/11/2008	3.04	0.181	1.82	16.70	27.00
CEF-293-22	1/25/2000	6.44	0.126	NM	NM	23.00
	3/11/2003	3.95	0.508	3.13	193.00	21.50
	6/7/2003	5.72	0.428	0.12	-20.00	25.90
	9/2/2003	5.57	0.929	0.72	52.00	28.75
	12/12/2003	5.63	0.626	4.24	99.00	24.35
	3/17/2004	5.71	0.480	NM	74.00	23.01
	6/9/2004	4.96	0.172	0.90	15.00	25.32
	9/20/2004	4.97	0.478	0.35	70.00	27.10
	12/2/2004	5.68	0.716	0.33	6.00	26.08
	3/11/2005	5.23	0.518	0.25	-83.30	21.87
	6/8/2005	5.41	0.378	0.09	-98.80	25.54
	9/8/2005	5.68	0.507	0.46	45.40	28.60
	12/8/2005	5.61	0.548	1.42	194.30	22.99
	3/28/2006	5.50	0.407	0.95	-77.10	22.36
	6/8/2006	4.26	0.252	0.65	132.70	26.54
	9/24/2006	4.66	0.250	0.74	-93.50	27.93
	4/18/2007	4.72	0.166	0.37	-17.90	23.62
	9/12/2007	5.11	0.305	0.77	-32.20	30.23
	3/5/2008	5.50	0.236	1.49	34.90	22.00
	10/11/2008	4.93	0.399	1.04	84.30	28.20
VEW-01	12/2/2004	5.92	0.302	0.10	-216.50	25.40
	3/11/2005	7.46	0.120	0.00	-100.00	21.55
	6/8/2005	5.16	0.134	0.08	-198.20	23.18
	9/8/2005	6.13	0.091	1.97	48.10	27.26
	12/8/2005	5.56	0.214	0.54	-24.40	22.89
	3/28/2006	5.41	0.149	0.50	-76.40	22.75
	6/8/2006	4.45	0.129	0.36	-3.20	25.29
	9/24/2006	4.62	0.147	0.40	-79.30	27.49
	4/18/2007	5.38	0.177	0.62	-129.30	21.67
	9/12/2007	5.46	0.191	0.87	-28.10	26.65
	3/5/2008	5.91	0.077	0.58	-52.10	21.11
	10/11/2008	5.99	0.238	0.43	-137.50	25.99

TABLE 2
FIELD ANALYTICAL RESULTS

DAY TANK 1
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

	Date	pH (S.U.)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Temperature (^{o}C)
VEW-02	1/25/2000	5.63	0.085	NM	NM	22.70
	3/11/2003	5.90	0.110	2.51	-53.00	21.10
	6/7/2003	6.09	0.132	0.00	-86.00	22.90
	9/4/2003	5.60	0.342	1.34	-163.00	26.85
	12/12/2003	5.82	0.563	4.01	23.00	22.78
	3/17/2004	5.48	0.172	0.80	NM	21.30
	6/9/2004	5.57	0.172	0.16	-75.90	23.45
	9/20/2004	6.49	0.777	0.10	-141.60	25.98
	12/2/2004	5.91	0.404	0.05	-225.70	24.79
	3/11/2005	8.53	0.310	0.98	-170.00	21.92
	6/8/2005	5.67	0.280	0.06	-209.00	23.53
	9/8/2005	5.57	0.710	0.39	-85.30	26.71
	12/8/2005	6.19	0.511	0.74	-125.60	22.10
	3/28/2006	6.10	0.392	0.62	-87.70	22.53
	6/8/2006	4.92	0.306	0.45	-122.70	23.94
	9/24/2006	5.36	0.295	0.38	-33.70	26.33
	4/18/2007	5.14	0.283	0.19	-85.40	22.76
	9/12/2007	5.59	0.317	0.69	-84.30	26.42
	3/5/2008	6.31	0.374	0.41	-203.40	21.57
	10/11/2008	5.85	0.450	1.55	55.20	25.03
VEW-03	1/25/2000	5.90	0.070	NM	NM	22.10
	3/11/2003	4.84	0.166	6.06	202.00	21.30
	6/7/2003	5.61	0.159	0.34	30.00	25.10
	9/2/2003	5.06	0.306	0.51	NM	27.40
	12/12/2003	5.10	0.354	0.66	-223.00	24.60
	3/17/2004	5.40	0.398	NM	176.00	21.80
	6/9/2004	4.70	0.145	0.42	70.00	25.63
	9/20/2004	5.62	0.137	0.00	-42.00	27.32
	12/2/2004	5.39	0.341	0.45	32.00	25.51
	3/11/2005	5.01	0.275	0.31	-10.30	22.06
	6/8/2005	4.91	0.145	0.82	-9.90	26.13
	9/8/2005	5.33	0.315	1.65	-156.20	23.50
	12/8/2005	5.47	0.369	1.10	164.60	23.83
	3/28/2006	4.56	0.221	0.50	65.10	23.85
	6/8/2006	4.79	0.247	0.62	-132.10	26.75
	9/24/2006	4.52	0.222	0.83	-100.50	27.91
	4/19/2007	5.10	0.205	0.58	-125.10	22.90
	6/20/2007	5.05	0.154	0.83	-106.70	26.19
	9/12/2007	5.14	0.136	0.82	10.10	28.25
	3/5/2008	5.04	0.132	0.44	-85.70	23.38
	10/11/2008	3.80	0.185	2.94	2.30	28.06
VEW-04	1/25/2000	5.59	0.078	NM	NM	23.00
	3/11/2003	4.35	0.126	5.85	190.00	22.40
	6/7/2003	5.60	0.109	0.00	-41.00	25.10
	9/2/2003	5.35	0.277	0.00	106.00	27.53
	12/12/2003	5.37	0.358	0.28	182.00	24.34
	3/17/2004	5.17	0.316	NM	200.00	22.73
	6/9/2004	4.63	0.128	0.57	210.00	25.43
	9/20/2004	5.15	0.282	0.07	-46.10	27.60
	12/2/2004	4.83	0.683	0.27	103.20	26.27
	3/11/2005	4.39	0.393	0.24	44.90	22.55
	6/8/2005	4.69	0.203	0.05	64.30	26.93
	9/8/2005	5.24	0.254	0.30	150.80	29.26
	12/8/2005	4.93	0.232	1.00	237.90	23.27
	3/28/2006	4.95	0.221	0.57	-94.30	23.40
	6/8/2006	3.65	0.223	0.50	256.30	27.25
	9/24/2006	4.57	0.210	0.46	202.60	28.47
	4/18/2007	4.54	0.142	0.62	0.70	23.88
	9/12/2007	4.45	0.130	0.75	-32.10	29.15
	3/5/2008	4.76	0.123	0.68	-82.60	22.61
	10/11/2008	4.65	0.226	0.59	-27.90	28.47

TABLE 2
FIELD ANALYTICAL RESULTS

DAY TANK 1
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

	Date	pH (S.U.)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Temperature (^oC)
VEW-05	1/25/2000	6.28	0.113	NM	NM	21.50
	3/11/2003	4.35	0.104	5.25	227.00	20.70
	6/6/2003	5.10	0.122	0.02	40.00	24.70
	9/2/2003	4.84	0.319	0.08	158.00	27.69
	12/12/2003	4.68	0.278	0.36	-214.00	23.62
	3/17/2004	5.00	0.245	NM	232.00	21.51
	6/9/2004	4.47	0.106	0.11	238.00	25.83
	9/20/2004	3.94	0.110	0.04	144.00	26.88
	12/2/2004	5.11	0.227	0.62	159.20	24.44
	3/11/2005	5.24	0.253	0.23	53.50	20.82
	6/8/2005	4.62	0.127	0.25	206.10	25.33
	9/8/2005	5.70	0.202	1.11	-168.20	28.55
	12/8/2005	6.21	0.220	3.68	149.50	21.98
	3/28/2006	4.85	0.245	0.44	181.90	23.77
	6/8/2006	4.75	0.218	0.53	-81.70	26.69
	9/24/2006	5.08	0.165	0.91	34.50	28.02
	4/18/2007	4.94	0.266	0.78	140.10	22.21
	9/13/2007	4.80	0.343	0.46	116.40	28.79
	3/5/2008	4.68	0.237	0.32	-24.90	21.08
	10/11/2008	5.15	0.273	0.37	-122.20	28.79
VEW-06	12/8/2005	5.67	0.484	0.94	151.60	23.67
	4/19/2007	4.99	0.255	0.44	79.60	22.37
	9/13/2007	5.61	0.219	0.58	136.90	29.71
	3/5/2008	5.36	0.196	0.34	-22.40	22.89
	10/11/2008	4.64	0.202	1.81	77.20	27.09
VEW-07	1/25/2000	5.63	0.074	NM	NM	21.80
	3/11/2003	4.98	0.111	2.69	86.00	18.50
	6/7/2003	5.70	0.134	0.00	-36.00	22.00
	9/4/2003	5.01	0.318	2.26	-42.00	25.31
	12/12/2003	5.07	0.469	0.17	-307.00	23.18
	3/17/2004	5.44	0.186	1.20	NM	21.40
	6/9/2004	5.36	0.214	0.18	-65.60	24.23
	9/20/2004	5.41	0.220	0.24	-137.90	25.36
	12/2/2004	5.71	0.295	0.18	-145.90	24.95
	3/11/2005	7.92	0.260	3.32	-107.00	22.00
	6/8/2005	5.26	0.241	0.30	-138.00	23.08
	9/8/2005	5.16	0.421	0.59	-203.60	25.70
	12/8/2005	5.33	0.448	1.45	84.30	22.43
	3/28/2006	4.91	0.268	0.25	-7.00	23.36
	6/8/2006	4.45	0.262	0.76	-106.50	24.98
	9/24/2006	4.79	0.275	0.55	-103.80	26.06
	4/18/2007	4.72	0.223	0.24	-57.70	22.12
	9/12/2007	5.30	0.223	0.54	-66.30	26.00
	3/5/2008	5.24	0.139	0.22	-85.20	21.81
	10/11/2008	2.94	0.145	0.70	12.00	26.28
VEW-08	12/8/2005	5.68	0.273	0.89	-35.10	22.18
	4/18/2007	5.84	0.350	0.43	-199.10	23.10
	9/12/2007	5.72	0.310	0.29	-115.30	27.51
	3/5/2008	5.36	0.126	0.60	-131.70	21.73
	10/11/2008	5.02	0.145	0.56	-42.70	26.37

S.U. = standard units
mS/cm = millisiemens per centimeter
mg/L = milligrams per liter
^oC = degrees Centigrade
NM = not measured

TABLE 3
Groundwater Analytical Results

Day Tank 1
NAS Cecil Field
Jacksonville, Florida

Sample I.D.	Date	Benzene	Ethylbenzene	Toluene	Xylenes (total)	Acenaphthylene	Acenapthene	Fluoranthene	Pyrene	Chrysene	Benzo (a) anthracene	Benzo(b) Fluoranthene	Benzo(k) Fluoranthene	Benzo(a) Pyrene	Benzo(g,h,i) Perylene	Indeno (1,2,3-cd) Pyrene	Naphthalene by Method 8270C-SIM	Napthalene by Method 8260B	1-Methylnapthalene	2-Methylnapthalene	Phenanthrene	Fluorene	Isopropylbenzene	Chloroform	n-Propylbenzene	sec-Butylbenzene	n-Butylbenzene	tert-butylbenzene	1,2,4 Trimethylbenzene	1,3,5 Trimethylbenzene	p-Isopropyltoluene
Cleanup Goal - RAP		1	NA	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GCTL		1	30	40	20	210	20	280	210	4.8	0.05	0.05	0.5	0.2	210	0.05	14	14	28	28	210	280	--	70	NA	NA	NA	NA	10	10	NA
NADSC		100	300	400	200	2100	200	2800	2100	480	5	5	50	20	2100	5	140	140	280	280	2100	2800	--	700	NA	NA	NA	NA	100	100	NA
CEF-293-02	12/08/05	ND	1.83 I	ND	2.89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	30.1	22.1	ND	ND	ND	ND	2.06	ND	2.90	2.02	ND	ND	8.72	2.83	ND
	04/18/07	0.320 I	1.04	ND	ND	ND	0.220 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.28	4.01 I	5.93	0.200 I	ND	2.49	ND	3.26	2.82	ND	ND	ND	ND	0.830 I
	09/12/07	ND	0.720 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	24.1	23.5	6.87	10.2	ND	ND	2.09	ND	3.32	2.25	ND	ND	2.93	0.430 I	ND
	03/05/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.37	ND	ND	ND	ND	ND	ND	ND
	10/11/08	<0.40	<0.43	<0.35	<0.78	<0.48	0.48 U	0.24 U	0.24 U	0.096 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.81 I	1.8 I	0.34 I	0.75 I	<0.24	<0.48	1.2	<0.28	1.8	0.90 I	0.30 I	0.32 I	4.4	1.0 I	0.38 I
CEF-293-09	01/25/00	43.1	602	826	2150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	378	--	128	182	ND	--	--	--	--	--	--	--	--	--	--
	12/09/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/06/03	3.8	4.3	ND	20.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.9	--	ND	ND	ND	ND	5.8	ND	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.36	--	0.20	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	2.9	5.8	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	47.5	98	19.4	18.4	ND	ND	11.8	ND	12.5	3.3	1.9	--	2.3	ND	--
	03/17/04	2.3	5.7	ND	ND	ND	0.14	ND	ND	ND	ND	ND	ND	ND	ND	ND	136	146	47.1	50.4	ND	ND	7.9	ND	13.1	4.1	2.4	--	ND	ND	1.2
	06/09/04	ND	6.96	ND	1.54	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	63.8	81.6	24.6	22.4	ND	ND	12.2	ND	15.9	6.63	ND	ND	6.93	2.98	3.47
	09/20/04	ND	1.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.4	24.1	3.8	4.5	ND	ND	3.6	ND	4.48	1.04	ND	ND	3.75	3.06	ND
	12/02/04	ND	7.180	ND	3.25	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33.64	72.84	16.1 J3	22.7 J3	ND	ND	12.51	ND	15.37	6.20	ND	ND	26.34	7.77	5.53
	03/11/05	ND	6.060	ND	1.46 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.2	95.2	7.48	12.2	ND	ND	17.4	ND	22.0	8.20	ND	ND	30.7	6.50	5.56
	06/08/05	ND	17.8	ND	21.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.8	29.2	7.21	12.1	ND	ND	17.5	ND	16.9	5.24	ND	ND	36.4	13.80	4.11
	09/08/05	ND	41.1	1.18 I	47.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	50.4	75.4	26.9	43.3	ND	ND	18.9	ND	23.5	7.42	ND	ND	70.9	31.80	8.81
	12/08/05	ND	4.89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14.0	87.7	ND	9.24	ND	ND	10.5	ND	18.2	9.38	ND	ND	25.1	11.4	7.31
	03/28/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	06/08/06	ND	4.55	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.7	31.5	6.35	14.3	ND	ND	6.3	ND	8.00	4.30	ND	ND	12.4	2.29	2.63
	09/24/06	ND	20.8	0.790 I	31.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	46.6	56.1	20.90	33.0	ND	ND	12.4	ND	14.2	6.56	ND	ND	50.3	19.7	6.23
	04/18/07	ND	14.4	0.310 I	44.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20.3	44.4	7.60	16.1	ND	ND	11.0	ND	11.3	3.44	ND	ND	38.1	11.4	2.59
	09/12/07	ND	13.3	ND	18.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	39.1	40.2	13.50	28.8	ND	ND	7.9	ND	8.19	1.55	0.800 I	ND	30.6	8.41	1.48
	03/05/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.48	11.6	5.23	16.4	ND	ND	2.66	ND	3.49	2.30	0.96 I	ND	ND	ND	0.580 I
	10/11/08	<0.40	<0.43	<0.35	<0.78	<0.48	<0.48	<0.24	<0.24	<0.096	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	6.0	9.2	6.3	13.0	<0.24	<0.48	1.7	<0.28	2.0	1.5	0.81 I	<0.32	0.76 I	0.21 I	<0.32
CEF-293-13	12/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	04/19/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.9	ND	ND	ND	ND	ND	ND	ND	ND
	09/12/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.30	ND	ND	ND	ND	ND	ND	ND	ND
	03/05/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.24	ND	ND	ND	ND	ND	ND	ND	ND
	10/11/08	<0.40	<0.43	<0.35	<0.78	<0.48	<0.48	<0.24	<0.24	<0.096	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.24 U	1.0 U	0.24 U	0.24 U	0.24 U	0.48 U	0.28 I	0.28 U	0.25 U	0.42 I	0.28 U	0.32 U	0.22 U	0.20 U	0.32 U
CEF 293-22	01/25/00	24.2	19.4	0.88	47.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	142	--	99.6	67	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	2.4	ND	--	--	--	--	--	--	--	--	--	--
	06/09/03	ND	ND	ND	ND	ND	ND	ND	0.11	ND	ND	ND	ND	ND	ND	ND	0.64	--	4.97	3.76	0.21	0.13	ND	ND	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	1.34	0.96	0.12	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.07	0.88	0.23	ND	ND	ND	ND	ND	ND	--	ND	ND	--
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.35	1.20	0.16	ND	ND	ND	ND	ND	ND	--	ND	ND	ND
	06/09/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.780 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/20/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/02/04	3.67	ND	ND	1.80 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/11/05	3.59	1.56 I	ND	3.73	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.09	ND	ND	ND	ND	ND	3.56	1.44 I	ND
	06/08/05	2.74	1.66 I	ND	5.89	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.86	ND	1.10 I	ND	ND	ND	11.7	4.36	ND
	09/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.13 I	ND	ND	ND	ND	ND	1.12 I	ND	ND	ND	ND	ND	1.80 I	1.09 I	ND
	12/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.13 I	1.35 I	ND	ND	ND	ND	0.360 I	ND	ND	ND	ND	ND	0.830 I	0.470 I	ND
	03/28/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.300 I	0.210 I	ND	ND	0.240 I	ND	ND	0.610 I	ND	ND	0.640 I	0.420 I	0.420 I
	06/08/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.16	ND	ND	ND	ND	ND	ND	ND	1.17	ND	ND	ND	ND	0.600 I
	09/24/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.370 I	ND	ND	ND	ND	ND	ND	1.27	ND	ND	ND	ND	0.610 I
	04/18/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.97	2.96	5.34	4.60 I	0.670 I	ND	ND	ND	ND	1.98	ND	ND	ND	ND	1.29
	09/12/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.38 I	1.07 I	ND	ND	ND	ND	ND	0.660 I	ND	ND	ND	ND	ND
	03/05/08	ND	1.13	ND	0.940 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.01	ND	ND
	10/11/08	0.40 U	0.43 U	0.35 U	0.78 U	0.48 U	0.48 U	0.24 U	0.24 U	0.096 U	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.24	<1.0	<0.24	<0.24	<0.24	<0.48	0.54 I	<0.28	<0.25	<0.25	<0.28	<0.32	0.30 I	<0.20	<0.32
VEW-1	01/25/00	18.5	257	59.4	726	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	350	--	220	307	ND	--	--	--	--	--	--	--	--	--	--
	06/13/00	FREE PRODUCT																FREE PRODUCT													
	03/11/03	FREE PRODUCT																FREE PRODUCT													
	06/07/03	FREE PRODUCT																FREE PRODUCT													
	09/04/03	FREE PRODUCT																FREE PRODUCT													
	12/12/03	NS																NS													
	03/17/04	NS																NS													
	06/09/04	NS																NS													
	09/20/04	NS																NS													
	12/02/04	ND	18.17	0.9700 I	39.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.590	ND J3	ND J3	ND	ND	4.7	ND	4.280	2.20	ND	ND	32.06	5.13	4.080
	03/11/05	ND	11.8	0.450 I	26.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.4	ND	ND	ND	ND	ND	4.86	ND	ND	2.26	ND	ND	39	3.67	5.25
	06/08/05	ND	28.4	1.29 I	83.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	35.2	ND	ND	ND	ND	12.0	ND	15.8	10.60	ND	ND	94.1	19.5	17.0
	09/08/05	ND	0.410 I	ND	0.510 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.430 I	ND	ND
	12/08/05	ND	19.5	0.460 I	16.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18.2	22.5	16.2	6.02	ND	ND	8.11	ND	8.89	6.29	ND	ND	57.2	4.57	7.59
	03/28/06	ND	16.9	0.610 I	30.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23.0	38.8	29.4	28.5	ND	0.210 I	10.9	ND	13.1	8.97	ND	ND	83.2	14.2	12.9
	06/08/06	ND	10.5	0.290 I	19.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12.5	19.5	12.9	13.6	ND	ND	8.17	ND	10.9	5.66	ND	ND	54.2	8.17	ND
	09/24/06	ND	10.6	0.440 I	28.7	ND	0.190 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	18.0	17.6	20.1	17.7	ND	ND	8.68	ND	11.4	8.82	ND	ND	ND	20.8	12.7
	04/18/07	ND	4.60	ND	5.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	15.4	11.5	33.1	24.0	ND	0.290 I	7.35	ND	8.02	5.83	ND	ND	44.4	3.85	6.93
	09/12/07	ND	1.60	ND	1.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.26	0.830 I	ND	ND	ND	1.97	ND	2.08	1.60	0.830 I	ND	17.1	ND	ND
	03/05/08	ND	0.740 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.81 I	ND	ND	ND	ND	1.11	ND	1.08	0.650 I	ND	ND	5.01	ND	0.530 I
	10/11/08	<0.40	2.70	<0.35	2.70	<0.48	<0.48	<0.24	<0.24	<0.096	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	0.90 I	1.7 I	0.73 I	0.41 I	<0.24	<0.48	3.3	<0.28	3.9	1.6	0.51 I	0.39 I	13.8	<0.20	0.80 I
VEW-2	01/25/00	91.6	149	29.2	573	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	284	--	118	139	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/07/03	ND	ND	ND	ND	ND	ND	ND	0.16	ND	ND	ND	ND	ND	ND	ND	ND	--	1.06	0.42	ND	ND	ND	ND	--	--	3.2	--	2.3	6.00	--
	09/04/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	1.4	0.54	ND	ND	ND	ND	--	--	ND	--	ND	3.90	--
	12/12/03	ND	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	0.18	ND	ND	ND	3.2	ND	ND	ND	ND	--	2.2	1.60	--
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.58	ND	1.27	1.09	ND	ND	ND	ND	ND	ND	ND	--	2.0	ND	ND
	06/09/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.284 I	ND	ND	0.396 I	ND	ND	ND	ND	ND	ND	ND	ND	2.23	1.33	ND
	09/20/04	ND	ND	ND	2.45	ND, J3	ND, J3	ND	ND	ND	ND	ND	ND	ND	ND, J3	ND	ND, J3	ND	ND, J3	ND, J3	ND	ND, J3	ND	ND	ND	ND	ND	ND	5.95	1.63	ND
	12/02/04	ND	1.310 I	ND	3.85	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.16 I	10.03	3.18 J3 I	2.05 J3 I	ND	ND	1.690 I	ND	2.14	1.93 I	ND	ND	16.56	1.70 I	3.52
	03/11/05	ND	0.930 I	ND	1.25 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.557 I	13.0	1.29 I	1.15 I	ND	ND	1.48 I	ND	2.45	1.94 I	ND	ND	13.30	ND	2.84
	06/08/05	ND	0.560 I	ND	0.460 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.9	ND	ND	ND	ND	1.16 I	ND	1.43 I	2.02	ND	ND	11.70	0.750 I	1.93 I
	09/08/05	ND	0.560 I	ND	1.23 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.52 I	ND	4.23 I	4.40 I	ND	ND	1.53 I	ND	2.46	2.52	ND	ND	16.90	3.5	3.73
	12/08/05	ND	0.480 I	ND	0.650 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.8	6.80	7.42	ND	ND	1.88 I	ND	2.68	3.51	ND	ND	14.1	3.06	2.82
	03/28/06	ND	0.340 I	ND	0.340 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.30	6.36	7.02	ND	ND	1.52	ND	2.07	2.97	ND	ND	7.82	1.88	2.30
	06/08/06	1.16	0.340 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.19	7.59	8.35	ND	ND	ND	ND	2.86	3.88	ND	ND	10.0	0.980 I	2.61
	09/24/06	1.34	1.98	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.510 I	1.48	7.79	8.17	ND	ND	4.37	ND	2.96	4.03	ND	ND	6.9	ND	1.81
	04/18/07	0.860 I	5.94	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.5	ND	ND	ND	ND	11.4	ND	9.08	4.72	ND	ND	4.35	ND	1.83
	09/12/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.43	11.4	3.88 I	6.54	ND	ND	2.46	ND	4.19	2.92	ND	ND	6.79	0.700 I	ND
	03/05/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.450 I	ND	2.87 I	4.65 I	ND	ND	1.45	ND	2.98	6.46	ND	ND	2.59	ND	4.82
	10/11/08	<0.40	0.63 I	<0.35	<0.78	<0.48	0.<48	<0.24	<0.24	<0.096	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	3.3	9.6	0.47 I	0.90 I	<0.24	<0.48	3.1	<0.28	4.9	5.0	1.2	0.67 I	<0.22	<0.20	1.7

TABLE 3
Groundwater Analytical Results

Day Tank 1
NAS Cecil Field
Jacksonville, Florida

Sample I.D.	Date	Benzene	Ethylbenzene	Toluene	Xylenes (total)	Acenaphthylene	Acenaphthene	Fluoranthene	Pyrene	Chrysene	Benzo (a) anthracene	Benzo(b) Fluoranthene	Benzo(k) Fluoranthene	Benzo(a) Pyrene	Benzo(g,h,i) Perylene	Indeno (1,2,3-cd) Pyrene	Naphthalene by Method 8270C-SIM	Napthalene by Method 8260B	1-Methylnapthalene	2-Methylnapthalene	Phenanthrene	Fluorene	Isopropylbenzene	Chloroform	n-Propylbenzene	sec-Butylbenzene	n-Butylbenzene	tert-butylbenzene	1,2,4 Trimethylbenzene	1,3,5 Trimethylbenzene	p-Isopropyltoluene
Cleanup Goal - RAP		1	NA	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GCTL		1	30	40	20	210	20	280	210	480	5	5	50	20	2100	5	140	140	280	280	2100	280	--	70	NA	NA	NA	NA	NA	10	10	NA
NADSC		100	300	400	200	2100	200	2800	2100	480	5	5	50	20	2100	5	140	140	280	280	2100	2800	--	700	NA	NA	NA	NA	NA	100	100	NA
VEW-3	01/25/00	24.4	85.6	11.5	128	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	220	--	78	102	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/06/03	ND	ND	ND	4.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	1.8	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND	--	ND	ND	--
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.87	ND	2.27	1.46	ND	ND	3.8	ND	4.2	ND	ND	--	ND	ND	ND
	06/09/04	ND	ND	ND	2.32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.02 I	ND	3.01	1.18 I	ND	ND	17.5	ND	17.2	3.21	ND	1.11	ND	2.18	6.02
	09/20/04	ND	ND	ND	ND	ND, J3	ND, J3	ND	ND	ND	ND	ND	ND	ND	ND, J3	ND	5.29, J3	30.6	2.86, J3	2.88 J3	ND	ND, J3	19	ND	24.2	11.6	ND	ND	12	13	12.8
	12/02/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.09 I	7.340	7.88 J3	7.05 J3	ND	ND	1.580 I	ND	2.32	4.73	3.32	ND	2.130 I	0.4900 I	6.44
	03/11/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.50	8.39	8.98	ND	ND	1.25 I	ND	2.41	4.55	ND	ND	1.44 I	ND	ND
	06/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.08 I	ND	ND	ND	0.480 I	ND	1.09 I	3.09	ND	ND	0.590 I	0.430 I	2.14
	09/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.510 I	ND	ND	ND	ND	ND
	12/08/05	ND	0.460 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.820 I	ND	0.490 I	0.850 I	ND	ND	1.33 I	ND	ND
	03/28/06	0.260 I	0.800 I	ND	0.380 I	ND	0.190 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.20 I	2.53 I	ND	ND	2.24	ND	1.31	1.89	ND	ND	3.45	1.50	0.710 I
	06/08/06	ND	0.510 I	ND	ND	ND	0.340 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.55 I	4.25 I	ND	ND	1.53	ND	1.17	1.37	ND	ND	2.25	0.700 I	0.370 I
	09/24/06	0.700 I	2.02	ND	0.610 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.800 I	1.65	1.23 I	0.870 I	ND	ND	2.80	ND	2.67	3.12	0.640 I	ND	9.49	2.90	0.690 I
	04/19/07	0.530 I	3.29	ND	1.21	ND	0.220 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.44 I	4.28	5.01	6.49	ND	ND	3.93	ND	5.06	4.86	ND	ND	23.3	7.98	1.80
	06/20/07	0.650 I	4.10	ND	0.640 I	ND	0.290 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.99 I	4.37	5.49	7.57	ND	ND	3.09	ND	3.71	4.46	ND	ND	17.6	3.56	1.71
	09/13/07	ND	1.61	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.81	1.33 I	1.13 I	ND	ND	1.10	ND	2.02	1.44	ND	ND	6.85	1.23	ND
	03/05/08	0.400 I	1.68	ND	1.39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.30 I	1.15	3.79 I	4.91 I	ND	ND	2.99	ND	2.88	3.00	ND	ND	9.70	1.68	0.730 I
	10/11/08	<0.40	2.0	<0.35	2.89 I	<0.48	<0.48	<0.24	<0.24	<0.096	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	0.52 I	2.8 I	1.8	1.7	<0.24	<0.48	2.5	<0.28	3.3	2.5	0.98 I	0.47 I	9.8	4.6	0.61 I
VEW-4	01/25/00	81	138	7.8	288	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	252	--	88.7	108	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	06/07/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--	ND	ND	--
	12/12/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND
	03/17/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND
	06/09/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/20/04	ND	ND	ND	ND	ND, J3	ND, J3	ND	ND	ND	ND	ND	ND	ND	ND, J3	ND	ND, J3	ND	ND, J3	ND	ND	ND, J3	ND, J3	ND	ND	ND	ND	ND	ND	ND	ND
	12/02/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND, J3	ND, J3	ND	ND, J3	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/11/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	34.6	ND	10.0	10.3	ND		ND	ND	ND	ND	ND	ND	ND	ND	ND
	06/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.290 I	0.370 I	ND
	09/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	12/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/28/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	06/08/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/24/06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	04/19/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/13/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	03/05/08	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/11/08	<0.40	<0.43	<0.35	1.6	<0.48	0<.48	<0.24	<0.24	<0.095	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	8.1	13.5	<0.24	<0.24	<0.24	<0.48	6.1	<0.28	2.5	2.1	<0.28	0.36 I	5.5	2.7	<0.32
VEW-6	12/08/05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.480 I	ND	ND	ND	ND	ND	ND	ND	ND
	04/19/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.930 I	0.870 I	ND	ND	ND	ND	3.86	ND	ND	ND	ND	ND	ND	ND	ND
	09/13/07	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.26	ND	ND	ND	ND	5.28	ND	1.87	0.930 I	ND	ND	ND	ND	ND
	03/05/08	ND	ND	ND	1.28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.380 I	2.02	ND	ND	ND	ND	3.97	ND	ND	1.79	ND	ND	0.780 I	0.630 I	ND
	10/11/08	<0.40	<0.43	<0.35	<0.78	<0.48	<0.48	<0.24	<0.24	<0.096	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.24	<1.0	<0.24	<0.24	<0.24	<0.48	<0.20	<0.28	<0.25	0.36 I	2.4	0.48 I	31.1	5.8	1.4
VEW-7	01/25/00	46	213	97.8	458	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	491	--	172	210	ND	--	--	--	--	--	--	--	--	--	--
	03/11/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	--	--	--	--	--	--	--	--	--	--
	06/07/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	1.6	--	--	ND		ND	ND	--
	09/02/03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	0.13	ND	ND	ND	ND	ND	--	--	ND		ND	ND	--
	12/12/03	ND	ND	ND	3.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.2	ND	ND	ND	ND		ND	ND	--
	03/17/04	2.2	1.2	ND	7.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.09	ND	0.22	0.2	ND	ND	1	ND	1	ND	ND		5.7	ND	ND
	06/09/04	8.78	3.28	ND	2.20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.74	28.0	ND	0.641 I	ND	ND	2.70	ND	3.29	1.53	ND	ND	ND	2.63	ND
	09/20/04	4.2	5.55	ND	ND	ND, J3	ND, J3	ND	ND	ND	ND	ND	ND	ND	ND, J3	ND	2.06, J3	38.0	ND, J3	0.214 J3	ND	ND, J3	5.17	ND	3.78	1.42	ND	ND	3.81	7.51	ND
	12/02/04	4.95	21.00	ND	5.79	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	75.9	150 I	11.4 J3	7.11 J3	ND	ND	12.05	ND	15.83	7.18	ND	ND	56.72	12.02	6.520
	03/11/05	3.70	14.50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19.8	144.0	7.34	3.19 I	ND	ND	11.8	ND	17.0	13.2	ND	ND	19.3	0.470 I	ND
	06/08/05	4.58	15.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	64.2	127.0	25.6	18.1	ND	ND	12.3	ND	16.3	12.3	ND	ND	14.9	ND	2.78
	09/08/05	2.40	14.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	83.4	148.0	38.1	29.6	ND	ND	12.0	ND	19.0	11.4	ND	0.900 I	9.01	0.710 I	2.82
	12/08/05	2.05	10.3	ND	1.45 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	61.9	60.2	21.9	20.8	ND	ND	5.91	ND	8.52	5.22	ND	ND	7.43	2.19	1.76 I
	03/28/06	3.07	29.6	0.390 I	22.5	ND	0.220 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	89.7	168	34.2	37.7	ND	ND	13.7	ND	18.0	9.20	ND	ND	86.8	16.2	6.26 ?
	06/08/06	1.73	23.2	ND	5.26	ND	0.390 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	121.0	159	43.7	47.2	ND	ND	12.7	ND	20.1	10.20	ND	ND	119	20.2	8.37
	09/24/06	2.76	18.5	0.330 I	8.87	ND	0.200 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	98.9	194	27.8	35.8	ND	ND	10.5	ND	16.2	10.0	ND	ND	51.5	19.6	7.03
	04/18/07	2.37	16.4	0.270 I	19.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	95.4	181	42.2	53.7	ND	0.260 I	13.0	ND	19.3	10.4	ND	ND	55.7	22.3	9.74
	09/12/07	0.930 I	4.22	ND	3.67	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33.6	159	10.4	14.4	ND	ND	7.07	ND	10.4	7.20	6.30	ND	23.4	10.2	4.95
	03/05/08	0.410 I	2.52	ND	3.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	18.7	33.8	8.42	9.70	ND	ND	3.34	ND	4.45	3.51	ND	ND	9.13	1.35	1.33
	10/11/08	0.82 I	7.9	<0.35	12.8	<0.48	<0.48	<0.24	<0.24	<0.096	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	35.8	99.7	18.2	23.3	<0.24	<0.48	5.7	<0.28	9.1	4.0	2.4	0.48 I	31.1	5.8	1.4
VEW-8	12/08/05	ND	5.34	0.300 I	4.03	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	42.9	80.7	ND	ND	ND	ND	18.1	ND	19.6	7.49	ND	ND	76.4	27.2	ND
	04/18/07	ND	7.75	ND	1.81	ND	0.230 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.6	20.4	10.0	10.0	ND	ND	10.5	ND	9.11	4.61	ND	ND	11.8	2.16	2.14
	09/12/07	ND	1.44	ND	0.450 I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.65	14.7	6.47	6.41	ND	ND	3.26	ND	3.25	2.20	ND	ND	1.40	1.03	ND
	03/05/08	ND	0.840	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.35	7.22	5.43	7.22	ND	ND	2.06	ND	2.49	2.47	ND	ND	0.680 I	0.570 I	0.750 I
	10/11/08	<0.40	1.10	<0.35	<0.78	<0.48	<0.48	<0.24	<0.24	<0.096	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	1.4	7.4	1.3	1.6	<0.24	<0.48	1.50	<0.28	1.9	1.0	<0.28	<0.32	0.77 I	0.26 I	<0.32

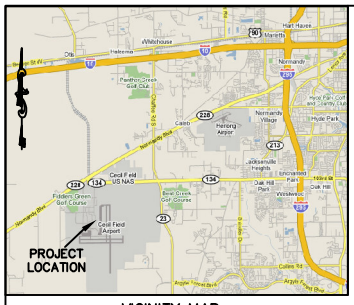
Notes:
1. All concentrations are in ug/l.
2. ND= Not Detect
3. NS = Not Sampled
4. NA = Not Applicable
5. I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
6. J3=The reported value failed to meet the established quality control criteria for either precision and/or accuracy.
7. Red = Rejected during data validation
9. GCTL = Groundwater clean-up target levels
Greater than GCTL
10. NADSC - Natural attenuation default source concentration
Greater than the NADSC
11. Data prior to March 2008 was reported by others.

APPENDIX A

SURVEY MAP

MAP SHOWING A SPECIFIC PURPOSE SURVEY OF:

A PORTION OF NAVAL AIR STATION CECIL FIELD, LOCATED IN DUVAL COUNTY, FLORIDA



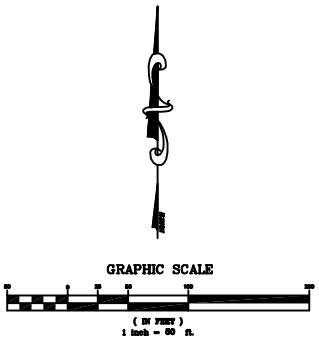
VICINITY MAP
NOT TO SCALE

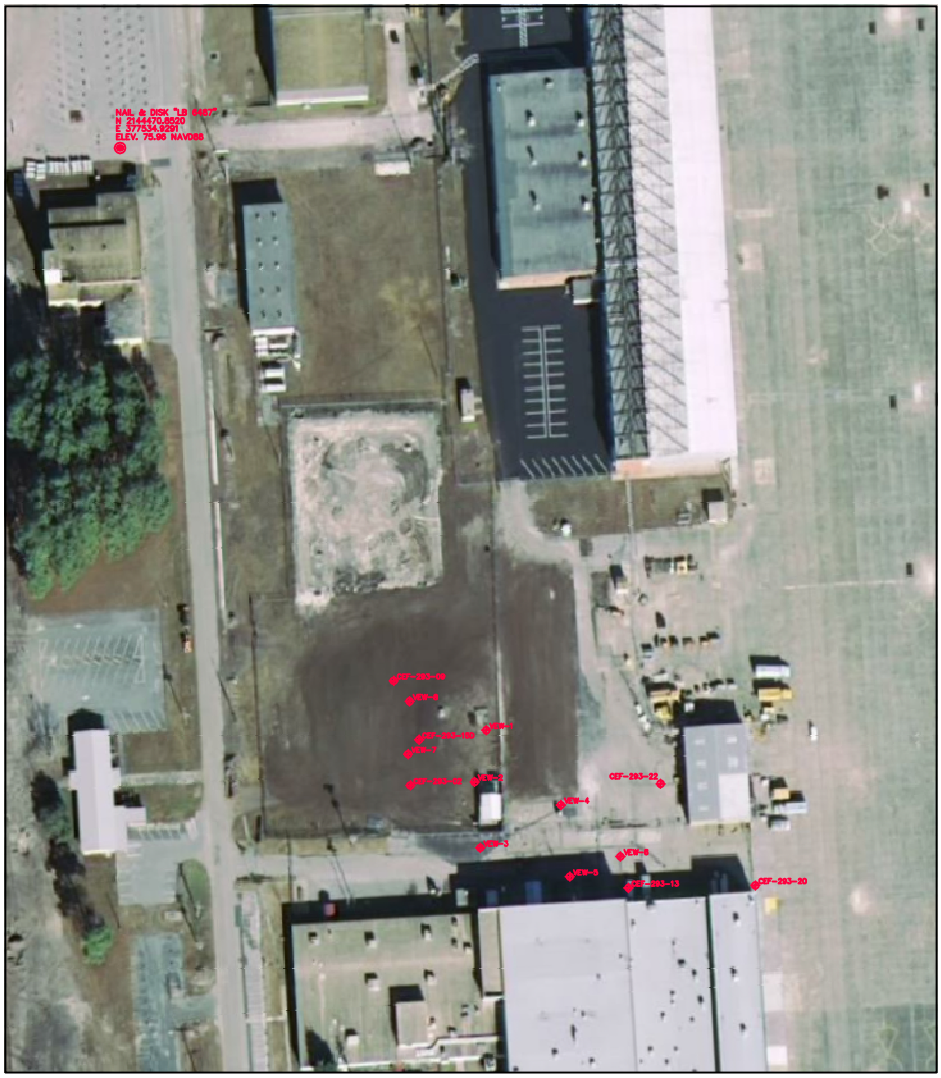
SURVEY NOTES

1. THIS IS A SPECIFIC PURPOSE SURVEY TO SHOW THE LOCATIONS OF MONITORING WELLS REQUESTED BY THE CLIENT.
2. COORDINATES SHOWN HEREON ARE BASED ON STATE PLANE COORDINATES NORTH AMERICAN DATUM (NAD) 1983, FLORIDA EAST ZONE. AND ARE BASED ON AN ARC NAIL & DISK "LB 6847" HAVING COORDINATES OF N 2145239.12, E 377523.43.
3. ELEVATIONS SHOWN HEREON ARE BASED UPON NATIONAL AMERICAN VERTICAL DATUM, 1988 (NAVD88) AND WERE TRANSFERRED FROM AN AN ARC NAIL & DISK "LB 6847" HAVING AN ELEVATION OF 76.84 FEET.
4. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE OCTOBER 14, 2008.

MONITORING WELL TABULATION

WELL DESCRIPTION	NORTHING	EASTING	TOP WELL ELEVATION	GROUND ELEVATION
CEF-293-02	2143943.395	377775.2385	75.57	75.63
CEF-293-09	2144029.835	377761.4569	76.56	76.66
CEF-293-13	2143868.453	377805.6786	74.91	74.61
CEF-293-180	2143861.06	377782.4789	75.65	75.91
CEF-293-20	2143850.498	378000.7384	74.62	75.02
CEF-293-22	2143944.64	377883.2758	74.48	74.80
VEW-1	2143968.915	377838.0248	74.39	75.29
VEW-2	2143946.524	377838.4372	74.38	75.37
VEW-3	2143891.566	377853.038	73.74	74.61
VEW-4	2143928.895	377899.7813	74.07	75.40
VEW-5	2143867.791	377907.1919	72.84	74.01
VEW-6	2143884.449	377949.0885	72.84	74.08
VEW-7	2143969.133	377773.3797	74.94	76.04
VEW-8	2144012.642	377774.6411	74.92	76.10





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DUVAL COUNTY, FLORIDA

MONITORING WELL LOCATIONS
DAY TANK 1 AREA

File name: 080908.DWG	Party Chief: JKM	Dwn by: JKM	Drawing Date: 10-14-08
Reference files:	Field Bk/Pg: 08-13/62-63	Chd by: JES	Survey Date: 10-10-08

Survey Performed for:
SOLUTIONS IES
1101 NOWELL ROAD
RALEIGH, NC 27607

No.	Approved	Date	Description

CERTIFICATION:
I HEREBY CERTIFY THAT THE INFORMATION DEPICTED HEREON IS TRUE AND COMPLETE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS ESTABLISHED BY THE BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 61G17-6 OF THE FLORIDA ADMINISTRATIVE CODE, PURSUANT TO CHAPTER 472 OF THE FLORIDA STATUTES.

JOHN E. SHERRILL
FLORIDA REGISTERED CERTIFICATE. NO. 6135

PROJECT NO. 08-09-08
FILE NO. C-08-47
SHEET 1 OF 1

APPENDIX B

GROUNDWATER SAMPLING LOGS

GROUNDWATER SAMPLING LOG

SITE NAME: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-02	SAMPLE ID: 04-41001/5:CEF-293-02:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 7.74	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (15.00 feet – 7.74 feet) X 0.16 gallons/foot = 1.18 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.00 gallons/foot X 17.00 feet)+ 0.13 gallons = 0.18 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00	PURGING INITIATED AT: 14:16	PURGING ENDED AT: 14:33	TOTAL VOLUME PURGED (gallons): 0.45

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
14:26		0.20	7.89	3.42	24.00	25.59	102.00	1.12	437.00	dark orang	none
14:29	0.10	0.30	7.88	3.31	19.70	25.50	102.00	0.84	431.00	dark orang	none
14:32	0.10	0.40	7.88	3.33	19.70	25.46	102.00	0.73	412.00	dark orang	none

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	.7	TEMP.(°C):	25.45	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	102	pH:	3.35	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	21.7	TURB(NTU):	421	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Burke Cathey	SAMPLER(S) SIGNATURES: BC	SAMPLING INITIATED AT: 14:33	SAMPLING ENDED AT: 14:58
PUMP OR TUBING DEPTH IN WELL (feet): 13.00	SAMPLE PUMP FLOW RATE (mL per minute): 100.20	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-02	3	CG	40 ml	HCL	40 ml	3.35	VOCs	RFPP
CEF-293-02	2	AG	1 L	None	1 L	3.35	SVOCs	PP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-09	SAMPLE ID: 04-41001/5:CEF-293-09:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 8.68	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (14.00 feet – 8.68 feet) X 0.16 gallons/foot = 0.87 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.00 gallons/foot X 16.00 feet)+ 0.13 gallons = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12.00	PURGING INITIATED AT: 14:10	PURGING ENDED AT: 14:39	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
14:23		0.40	8.78	5.96	-146.40	27.44	260.00	0.27	31.10	clear	none
14:29	0.30	0.70	8.78	5.66	-146.40	27.97	245.00	0.20	25.40	clear	none
14:32	0.20	0.90	8.78	5.64	-146.80	27.78	234.00	0.14	22.30	clear	none
14:36	0.20	1.10	8.78	5.60	-145.00	27.42	228.00	0.13	21.20	clear	none

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	0.12	TEMP.(°C):	27.77	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	224	pH:	5.60	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	-148.4	TURB(NTU):	21.2	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dawn Marshall	SAMPLER(S) SIGNATURES: JC	SAMPLING INITIATED AT: 14:39	SAMPLING ENDED AT: 14:43
PUMP OR TUBING DEPTH IN WELL (feet): 12.00	SAMPLE PUMP FLOW RATE (mL per minute): 169.69	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-09	3	CG	40 ml	HCL	40 ml	5.60	VOCs	RFPP
CEF-293-09	2	AG	1 L	None	1 L	5.60	PAHs	PP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-13	SAMPLE ID: 04-41001/5:CEF-293-13:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 7.17	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (14.80 feet – 7.17 feet) X 0.16 gallons/foot = 1.25 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.00 gallons/foot X 16.80 feet)+ 0.13 gallons = 0.14 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12.80	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12.80	PURGING INITIATED AT: 12:17	PURGING ENDED AT: 12:36	TOTAL VOLUME PURGED (gallons): 0.45

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
12:27		0.20	7.20	2.81	29.40	27.29	178.00	2.10	1.06	clear	none
12:31	0.10	0.30	7.20	2.97	20.10	27.15	180.00	2.03	0.64	clear	none
12:34	0.10	0.40	7.20	3.04	17.20	27.00	181.00	1.88	0.91	clear	none

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	1.82	TEMP.(°C):	27	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	181	pH:	3.04	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	16.7	TURB(NTU):	.59	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Burke Cathey	SAMPLER(S) SIGNATURES: BC	SAMPLING INITIATED AT: 12:36	SAMPLING ENDED AT: 12:58
PUMP OR TUBING DEPTH IN WELL (feet): 12.80	SAMPLE PUMP FLOW RATE (mL per minute): 89.65	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-13	2	AG	1 L	None	1 L	3.04	SVOCs	PP
CEF-293-13	3	CG	40 ml	HCL	40 ml	3.04	VOCs	RFPP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-22	SAMPLE ID: 04-41001/5:CEF-293-22:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 7.03	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (14.70 feet – 7.03 feet) X 0.16 gallons/foot = 1.25 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.00 gallons/foot X 16.70 feet)+ 0.13 gallons = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12.70	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12.70	PURGING INITIATED AT: 15:06	PURGING ENDED AT: 15:25	TOTAL VOLUME PURGED (gallons): 0.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
15:12		0.20	7.22	5.14	85.90	27.87	403.00	1.91	69.60	turbid	none
15:15	0.20	0.40	7.20	6.07	85.50	27.90	403.00	1.67	16.50	turbid	none
15:18	0.10	0.50	7.21	5.00	85.10	27.92	401.00	1.33	12.20	turbid	none
15:20	0.10	0.60	7.22	4.95	84.50	27.91	400.00	1.17	11.50	turbid	none
15:24	0.10	0.70	7.22	4.91	84.20	28.05	400.00	1.06	11.30	turbid	none

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	1.04	TEMP.(°C):	28.20	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	399	pH:	4.93	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	84.3	TURB(NTU):	9.97	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Leif Hazlewood	SAMPLER(S) SIGNATURES: L H	SAMPLING INITIATED AT: 15:25	SAMPLING ENDED AT: 15:42
PUMP OR TUBING DEPTH IN WELL (feet): 12.70	SAMPLE PUMP FLOW RATE (mL per minute): 139.46	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-22	2	AG	1 L	None	1 L	4.93	SVOCs	PP
CEF-293-22	3	CG	40 ml	HCL	40 ml	4.93	VOCs	RFPP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-VEW01	SAMPLE ID: 04-41001/5:CEF-293-VEW01:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 6.53	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (14.50 feet – 6.53 feet) X 0.16 gallons/foot = 1.30 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.01 gallons/foot X 16.50 feet)+ 0.13 gallons = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12.50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 12.50	PURGING INITIATED AT: 12:45	PURGING ENDED AT: 13:26	TOTAL VOLUME PURGED (gallons): 0.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
13:14		0.30	6.65	6.06	-144.00	26.28	239.00	0.93	17.60	clear	none
13:18	0.10	0.40	6.65	6.02	-141.40	26.21	239.00	0.76	18.30	clear	none
13:20	0.10	0.50	6.65	6.00	-139.60	26.16	239.00	0.56	14.10	clear	none

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	0.43	TEMP.(°C):	25.99	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	238	pH:	5.99	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	-137.5	TURB(NTU):	14.1	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dawn Marshall	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:26	SAMPLING ENDED AT: 13:42
PUMP OR TUBING DEPTH IN WELL (feet): 12.50	SAMPLE PUMP FLOW RATE (mL per minute): 64.63	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-VEW01	3	CG	40 ml	HCL	40 ml	5.99	VOCs	RFPP
CEF-293-VEW01	2	AG	1 L	None	1 L	5.99	PAHs	PP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-VEW02	SAMPLE ID: 04-41001/5:CEF-293-VEW02:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 6.67	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (16.00 feet – 6.67 feet) X 0.16 gallons/foot = 1.52 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.00 gallons/foot X 18.00 feet)+ 0.13 gallons = 0.18 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 14.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 14.00	PURGING INITIATED AT: 13:52	PURGING ENDED AT: 14:15	TOTAL VOLUME PURGED (gallons): 1.50

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
14:04		0.60	6.78	6.09	43.10	25.39	544.00	2.23	5.24	clear	slight HC
14:06	0.15	0.75	6.78	6.07	46.60	25.25	520.00	2.06	34.50	clear	slight HC
14:13	0.65	1.40	6.78	6.07	51.30	25.12	481.00	1.76	50.02	clear	slight HC
14:14	0.10	1.50	6.78	5.78	52.10	25.09	471.00	1.68	55.90	clear	slight HC

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	1.55	TEMP.(°C):	25.03	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	450	pH:	5.85	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	55.2	TURB(NTU):	69.6	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Leif Hazlewood	SAMPLER(S) SIGNATURES: LH	SAMPLING INITIATED AT: 14:15	SAMPLING ENDED AT: 14:35
PUMP OR TUBING DEPTH IN WELL (feet): 14.00	SAMPLE PUMP FLOW RATE (mL per minute): 246.87	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-VEW02	2	AG	1 L	None	1 L	5.85	SVOCs	PP
CEF-293-VEW02	3	CG	40 ml	HCL	40 ml	5.85	VOCs	RFPP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-VEW03	SAMPLE ID: 04-41001/5:CEF-293-VEW03:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 6.14	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (13.98 feet – 6.14 feet) X 0.16 gallons/foot = 1.28 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.01 gallons/foot X 15.98 feet)+ 0.13 gallons = 0.22 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 11.98	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11.98	PURGING INITIATED AT: 11:28	PURGING ENDED AT: 11:46	TOTAL VOLUME PURGED (gallons): 0.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:38		0.30	6.16	3.70	12.20	28.02	184.00		2.14	clear	none
11:41	0.10	0.40	6.16	3.68	8.60	28.02	187.00	2.67	1.17	clear	none
11:44	0.10	0.50	6.17	3.76	5.00	28.00	185.00	2.84	1.20	clear	none

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	2.94	TEMP.(°C):	28.06	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	185	pH:	3.8	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	2.3	TURB(NTU):	1.14	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Burke Cathey	SAMPLER(S) SIGNATURES: B C	SAMPLING INITIATED AT: 11:46	SAMPLING ENDED AT: 0:06
PUMP OR TUBING DEPTH IN WELL (feet): 11.98	SAMPLE PUMP FLOW RATE (mL per minute): 126.18	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-VEW03	3	CG	40 ml	HCL	40 ml	3.8	VOCs	RFPP
CEF-293-VEW03	2	AG	1 L	None	1 L	3.8	SVOCs	PP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-VEW04	SAMPLE ID: 04-41001/5:CEF-293-VEW04:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 6.52	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (15.10 feet – 6.52 feet) X 0.16 gallons/foot = 1.40 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.01 gallons/foot X 17.10 feet)+ 0.13 gallons = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 13.10	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13.10	PURGING INITIATED AT: 15:52	PURGING ENDED AT: 16:16	TOTAL VOLUME PURGED (gallons): 0.55

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:38		0.10	6.16	3.70	12.20	28.02	184.00		2.14	clear	none
11:44	0.20	0.30	6.17	3.76	5.00	28.00	185.00	2.84	1.20	clear	none
16:05	-0.10	0.20	6.54	4.20	-12.20	28.39	230.00	0.89	12.50	clear	none
16:08	0.10	0.30	6.54	4.34	-18.30	28.44	228.00	0.71	5.61	clear	none
16:11	0.10	0.40	6.54	4.47	-22.90	28.45	227.00	0.66	4.59	clear	none
16:14	0.10	0.50	6.54	4.60	-27.00	28.47	227.00	0.63	5.46	clear	none

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	.59	TEMP.(°C):	28.47	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	226	pH:	4.65	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	-27.9	TURB(NTU):	4.98	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Burke Cathey	SAMPLER(S) SIGNATURES: BC	SAMPLING INITIATED AT: 16:16	SAMPLING ENDED AT: 16:34
PUMP OR TUBING DEPTH IN WELL (feet): 13.10	SAMPLE PUMP FLOW RATE (mL per minute): 86.75	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-VEW04	3	CG	40 ml	HCL	40 ml	4.65	VOCs	RFPP
CEF-293-VEW04	2	AG	1 L	None	1 L	4.65	SVOCs	PP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-VEW05	SAMPLE ID: 04-41001/5:CEF-293-VEW05:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 5.42	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (16.85 feet – 5.42 feet) X 0.16 gallons/foot = 1.87 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.01 gallons/foot X 18.00 feet)+ 0.13 gallons = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 14.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 14.00	PURGING INITIATED AT: 10:44	PURGING ENDED AT: 11:17	TOTAL VOLUME PURGED (gallons): 1.40

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
10:54		0.40	5.46	5.21	-130.40	28.69	301.00	0.54	7.15	clear	none
10:57	0.10	0.50	5.46	5.20	-130.90	28.79	302.00	0.46	2.77	clear	none
11:00	0.10	0.60	5.46	5.17	-128.10	28.34	297.00	0.43	2.57	clear	none
11:04	0.20	0.80	5.46	5.17	-128.10	28.27	292.00	0.33	2.83	clear	none
11:08	0.20	1.00	5.46	5.19	-124.60	28.69	288.00	0.31	2.52	clear	none
11:11	0.10	1.10	5.46	5.17	-124.90	28.79	281.00	0.32	2.41	clear	none
11:15	0.20	1.30	5.46	5.15	-125.00	28.75	274.00	0.41	2.32	clear	none

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	0.37	TEMP.(°C):	28.79	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	273	pH:	5.15	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	-122.2	TURB(NTU):	2.32	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dawn Marshall	SAMPLER(S) SIGNATURES: JC	SAMPLING INITIATED AT: 11:17	SAMPLING ENDED AT: 11:29
PUMP OR TUBING DEPTH IN WELL (feet): 14.00	SAMPLE PUMP FLOW RATE (mL per minute): 160.59	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-VEW05	3	CG	40 ml	HCL	40 ml	5.15	VOCs	RFPP
CEF-293-VEW05	2	AG	1 L	None	1 L	5.15	SVOCs	PP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-VEW06	SAMPLE ID: 04-41001/5:CEF-293-VEW06:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 5.48	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (16.35 feet – 5.48 feet) X 0.16 gallons/foot = 1.77 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.00 gallons/foot X 18.35 feet)+ 0.13 gallons = 0.18 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 14.35	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 14.35	PURGING INITIATED AT: 11:45	PURGING ENDED AT: 12:09	TOTAL VOLUME PURGED (gallons): 1.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
11:52		0.70	5.48	4.91	70.00	27.31	217.00	3.29	29.60	clear	none
11:52	0.10	0.80	5.48	5.18	73.50	27.10	210.00	2.32	10.60		
12:02	0.50	1.30	5.48	4.80	73.90	27.06	205.00	1.92	21.90		
12:06	0.10	1.40	5.48	4.77	74.10	27.10	204.00	1.64	10.40		
12:08	0.30	1.70	5.48	4.70	77.10	27.10	202.00	1.64	6.80		

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	1.81	TEMP.(°C):	27.09	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	202	pH:	4.64	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	77.2	TURB(NTU):	5.24	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Leif Hazlewood	SAMPLER(S) SIGNATURES: LH	SAMPLING INITIATED AT: 12:09	SAMPLING ENDED AT: 12:25
PUMP OR TUBING DEPTH IN WELL (feet): 14.35	SAMPLE PUMP FLOW RATE (mL per minute): 268.13	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-VEW06	3	CG	40 ml	HCL	40 ml	4.64	VOCs	RFPP
CEF-293-VEW06	2	AG	1 L	None	1 L	4.64	SVOCs	PP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-VEW07	SAMPLE ID: 04-41001/5:CEF-293-VEW07:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 7.12	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (16.40 feet – 7.12 feet) X 0.16 gallons/foot = 1.51 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.01 gallons/foot X 18.40 feet)+ 0.13 gallons = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 14.40	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 14.40	PURGING INITIATED AT: 13:27	PURGING ENDED AT: 13:50	TOTAL VOLUME PURGED (gallons): 0.45

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
13:38		0.10	7.14	1.97	58.10	25.96	133.00	1.29	172.00	dark orang	none
13:41	0.10	0.20	7.14	2.57	39.70	26.12	134.00	0.95	173.00	dark orang	none
13:44	0.10	0.30	7.14	2.69	25.70	26.23	135.00	0.88	169.00		
13:47	0.10	0.40	7.14	2.76	18.60	26.23	139.00	0.78	172.00	dark orang	none

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

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .7	TEMP.(°C): 26.28	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm): 145	pH: 2.94	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV): 12	TURB(NTU): 167	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Burke Cathey	SAMPLER(S) SIGNATURES: BC	SAMPLING INITIATED AT: 13:50	SAMPLING ENDED AT: 14:16
PUMP OR TUBING DEPTH IN WELL (feet): 14.40	SAMPLE PUMP FLOW RATE (mL per minute): 74.06	TUBING MATERIAL CODE: PPE	
FIELD DECONTAMINATION: ☑ Y ☐ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-VEW07	2	AG	1 L	None	1 L	2.94	SVOCs	PP
CEF-293-VEW07	3	CG	40 ml	HCL	40 ml	2.94	VOCs	RFPP

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

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 oC 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: Day Tank 1 - Cecil Field LTM/RAO		SITE LOCATION: Jacksonville	
WELL NO: CEF-293-VEW08	SAMPLE ID: 04-41001/5:CEF-293-VEW08:10/11/08		DATE: 10/11/2008

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.38	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 7.06	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (15.00 feet – 7.06 feet) X 0.16 gallons/foot = 1.30 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
=0.00 gallons+(0.01 gallons/foot X 17.00 feet)+ 0.13 gallons = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00	PURGING INITIATED AT: 14:59	PURGING ENDED AT: 15:20	TOTAL VOLUME PURGED (gallons): 0.55

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	DEPTH TO WATER (feet)	pH (standard units)	ORP	TEMP.(°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
15:10		0.20	7.09	4.35	-17.00	26.21	140.00	0.89	40.00	clear	none
15:13	0.10	0.30	7.09	4.85	-26.30	26.41	141.00	0.72	26.50		
15:15	0.10	0.40	7.09	4.87	-33.50	26.46	142.00	0.64	24.20		
15:17	0.10	0.50	7.09	4.92	-40.50	26.40	145.00	0.60	22.50		

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

FIELD/TEST KIT

Final Purge Readings				Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	.56	TEMP.(°C):	26.37	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm):	145	pH:	5.02	Alkalinity:	Ferrous Iron:	CO2 High Range:	DO Low Range:
ORP(mV):	-42.7	TURB(NTU):	24.8	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:				Sulfate: Nitrate:	Sulfide:		

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Burke Cathey	SAMPLER(S) SIGNATURES: BC	SAMPLING INITIATED AT: 15:20	SAMPLING ENDED AT: 15:42
PUMP OR TUBING DEPTH IN WELL (feet): 13.00	SAMPLE PUMP FLOW RATE (mL per minute): 99.14	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
CEF-293-VEW08	2	AG	1 L	None	1 L	5.02	SVOCs	PP
CEF-293-VEW08	3	CG	40 ml	HCL	40 ml	5.02	VOCs	RFPP

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

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 oC 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 C

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY FORMS