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TTNUS/TLH-05-080/00055-6.4

November 03, 2005

Project Number 00055

Commander, Southern Division
Naval Facilities Engineering Command
ATTN: Mr. Bill Hill (Code ES31)
2155 Eagle Drive
North Charleston, South Carolina 29406

Reference: CLEAN Contract Number N62467-94-D-0888
Contract Task Order Number 0380

Subject: 3rd Quarter, Year 3 Groundwater Monitoring Letter Report – Site 1140NW
Outlying Landing Field (OLF) Bronson
Pensacola, Florida

Dear Mr. Hill:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this letter report for the referenced Contract Task Order (CTO). This report was prepared for the United States Navy (Navy) Southern Division, Naval Facilities Engineering Command under CTO 0380 for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888. This letter report provides the results of the 3rd Quarter, Year 3 groundwater sampling event conducted on June 8, 2005, as the 11th post-injection (12th event overall) sampling event of the treatability study for Site 1140NW, OLF Bronson, Pensacola, Florida. The results of the confirmation sample collected from monitoring well MW-03 on September 7, 2005 are also included.

Site Summary

Site 1140NW is located on the western edge of OLF Bronson in Pensacola, Florida. The site is bordered on the west by Perdido Bay, the east by a recreational vehicle (RV) parking compound, the north by a miniature golf course, and the south by a parking lot. An unnamed access road runs through the middle of the site. The site area is shown on Figure 1. The foundation of former Building 1140 is located on the western edge of the site.

From 1996 to 2000, contamination assessment activities were performed at Site 1140NW to determine the extent of petroleum impact to soil and groundwater at the site. A Contamination Assessment Report (CAR) and a CAR Addendum were completed for Site 1140NW in 1997 and 1998, respectively. The results of the assessment activities at Site 1140NW indicated that the site was suitable for Monitored Natural Attenuation (MNA) under the provisions of Chapter 62-770, Florida Administrative Code (F.A.C.). A Monitored Natural Attenuation Plan (MNAP) was prepared by TtNUS and approved by the Florida Department of Environmental Protection (FDEP) on May 8, 2000. Following approval of the MNAP, TtNUS performed the initial MNA groundwater sampling in May 2000. Sixteen (16) monitoring wells were originally installed at the site. One well (MW-16) has been destroyed or is abandoned; one well (MW-11) is located inside the locked gate of the RV parking compound, and is therefore inaccessible; and two wells (MW-07 and MW-10) are either buried or destroyed and have not been located. Groundwater samples were collected from monitoring wells MW-02, MW-03, MW-08, MW-09, and MW-13. Monitoring wells MW-03, MW-08, and MW-09 were designated as source area wells. Monitoring wells MW-02 and MW-13 were designated as perimeter wells. Results of the initial MNA sampling event indicated

dissolved petroleum contaminants in the groundwater exceeded FDEP site-specific action levels. As a result, TtNUS conducted a supplemental site assessment sampling event in May 2001.Based on the results of the supplemental site assessment, TtNUS recommended that a groundwater treatability study be completed at the site. In July 2002, TtNUS completed a work plan for Enhanced Natural Attenuation at Site 1140NW and in September 2002, TtNUS conducted the baseline groundwater sampling event (designated as the first quarter sampling event) followed by the installation of the iSOC™ system. Five iSOC™ injection points were installed as part of the treatability study and the quarterly groundwater monitoring program was initiated.

Eleven quarterly monitoring events and monitoring letter reports have been completed in addition to a treatability study evaluation event and report completed after the fourth quarter, year 1 sampling event (12th event overall). The Treatability Study Evaluation Report presented the data collected to date for the treatability study, interpreted the data, and provided conclusions and recommendations for the treatability study at this site. The Treatability Study Evaluation Report recommended continued operation of the iSOC™ system, as well as groundwater monitoring, until contaminant of concern (COC) concentrations were less than the appropriate Groundwater Cleanup Target Levels (GCTLs) or until sampling results indicate that the iSOC™ system is no longer reducing COC concentrations. Four quarterly performance monitoring letter reports have been prepared and submitted to date during Year 2 sampling. This quarterly monitoring report presents the data collected during the third quarter, Year 3.

iSOC™ Operation and Maintenance (O&M)

On August 18, 2004, TtNUS field personnel met at the site with the iSOC™ vendor to assess the status of the iSOC™ diffusers and controllers. The iSOC™ units installed at the site had first generation control panels. These panels have push compression fittings and polyethylene tubing and have a history of persistent leaks. Because of previous oxygen gas leaks at the site, as evident by the prematurely empty oxygen bottles, the iSOC™ vendor recommended that the iSOC™ components be removed from the wells and taken off-site to be refurbished and upgraded. The units were removed August 18, 2004 and were in the process of being refurbished in Tallahassee when Hurricane Ivan made landfall in the Pensacola area on September 16, 2004. The iSOC™ units have not yet been reinstalled.

Groundwater Sampling Activities

TtNUS personnel conducted the third quarter, Year 3 groundwater-monitoring event on June 8, 2005. The quarterly groundwater-monitoring event included:

- Measurement of static water levels (SWLs) to determine groundwater elevation and flow direction.
- Collection of groundwater samples from five on-site monitoring wells for laboratory analysis.
- Field and laboratory analyses for natural attenuation parameters.

The locations of site features and monitoring wells are shown on Figure 1. Groundwater samples for field and laboratory analysis were collected from the following monitoring wells as specified in the Treatability Study Work Plan:

Source Area Wells	Perimeter Wells
MW-03	MW-02
MW-08	MW-13
MW-09	

Groundwater samples were collected from the monitoring wells in general accordance with the current FDEP Standard Operating Procedures (SOPs). Depth-to-water was measured, and the wells were purged prior to sample collection. Purging was accomplished with a peristaltic pump using the low flow purge technique. During purging, field parameters [pH, conductivity, temperature, dissolved oxygen (DO), and oxidation-reduction potential] were measured at approximately 5 to 8 minute intervals using a YSI® 556MPS multi-parameter water quality instrument equipped with a flow-through cell. The instrument was calibrated according to the manufacturer's specifications at the beginning of the day. Sample turbidity was monitored using a LaMotte Model 2020 Turbidimeter.

Following the well purging activities, the groundwater samples were analyzed in the field for the following natural attenuation parameters: ferrous iron, alkalinity, carbon dioxide, DO, and sulfide. Groundwater Sample Log Sheets compiled during purging and sampling at each location are also provided in Attachment A.

Laboratory Analysis

Groundwater samples were collected from the selected monitoring wells for off-site analysis of:

- Polynuclear aromatic hydrocarbons (PAHs) by United States Environmental Protection Agency (USEPA) SW 846 Method 8270C with selective ion monitoring (SIM).
- Total Organic Carbon (TOC) by SW9060.
- Sulfate by SW9056.

After collection, groundwater samples were placed on ice and shipped overnight via Federal Express to Accura Analytical Laboratories (AAL) in Norcross, Georgia. The validated groundwater analytical reports are included in Attachment B.

Groundwater Elevation and Flow Direction

The water level data collected on June 8, 2005 are presented in Attachment A. The groundwater elevations for the third quarter, Year 3 monitoring event are summarized in Table 1. The water level data were used to estimate groundwater elevation and flow direction at the site (Figure 2). Free product was not detected in any on-site monitoring wells.

The water level data collected during the third quarter monitoring event indicates that groundwater flow in the Site 1140NW area is generally to the west-southwest towards Perdido Bay. This flow direction is consistent with previously reported groundwater flow data. The relative groundwater elevations measured during the second quarter, Year 3 monitoring event ranged from 23.49 to 24.16 feet above the reference datum.

Groundwater Analytical Results

Analytical results from the Baseline, Year 2 and Year 3 quarterly groundwater sampling events at Site 1140NW are summarized in Tables 2 and 3. Figure 3 provides a graphical representation of detected constituents exceeding GCTLs from the same period as the tables. The FDEP stated site-specific action levels for Site 1140NW are equivalent to the FDEP GCTLs for the COC. Long term trends in COC concentrations for the individual source area wells are shown in Figures 4, 5, and 6.

Seven PAH compounds (1-methylnaphthalene, 2-methylnaphthalene, acenaphthene, anthracene, fluorene, naphthalene, and phenanthrene) were detected in groundwater samples collected from

source area monitoring well MW-03. 1-Methylnaphthalene was detected in monitoring well MW-03 at a concentration of 21 micrograms per liter (µg/L), which is above the GCTL (20 µg/L). Monitoring well MW-03 was the only well sampled during this event to have a PAH concentration above the GCTL. The remaining PAHs analyzed in MW-03 were either not detected above instrument detection limits or were detected well below their respective GCTLs. None of the PAHs analyzed in MW-08 were found to exceed the current GCTLs. More specifically, only acenapthene and fluorene were found at levels above method detection limits. Laboratory analysis for MW-09 yielded results similar to the aforementioned source area wells. No exceedences were recorded. Two PAH compounds [benzo(a)pyrene and fluoranthene] previously detected on site were not detected in monitoring wells samples during this sampling event. Figures 4, 5, and 6 graphically indicate the continued decrease in COCs in source area monitoring wells MW-03; MW-08 and MW09, respectively.

Four PAH compounds (1-methylnapthalene, acenaphthene, napthalene and fluorene) were detected in the groundwater sample collected from perimeter monitoring well MW-13 (Table 3). The four detected PAH concentrations were less than their respective GCTLs. The concentrations of 2-methylnaphthalene, anthracene and phenanthrene, which had previously been detected at low concentrations in monitoring well MW-13, were less than the laboratory detection limits. No PAHs were detected at concentrations greater than the laboratory detection limits in the sample collected from perimeter well MW-02.

Based upon talks with FDEP officials, additional sampling was ordered for MW-03. The purpose of the additional sampling was to confirm the presence of 1-methylnapthalene at levels above GCTLs. The supplemental sampling event was conducted on September 7, 2005. Again, the results for 1-methylnaphthalene (27µg/L) were marginally above GCTLs. The results and associated forms are included in the tables, figures, and appendices included within this report.

Natural Attenuation Parameter Analysis

Table 4 provides a summary of the field analytical results and a list of the preferred range of natural attenuation parameters to have conditions conducive to biodegradation. The concentration of each parameter and concentration changes between monitoring events, with respect to background levels, indicate whether the site is undergoing aerobic degradation by naturally occurring microbes. This geochemical data provides a secondary line of evidence to determine if enhanced natural attenuation is occurring. The first measurements were recorded on September 4, 2002, and were considered baseline values of the parameters because they were recorded prior to the iSOC™ installation. The trends of the natural attenuation parameter measurements and comparison to the baseline values are discussed below.

DO readings observed in the monitoring wells during the current sampling event are included in Table 4 along with the other natural attenuation parameters. The DO concentrations for all wells have remained relatively consistent [less than 2.5 milligrams per liter change] since the last sampling event in March 2005. This may indicate that oxygen concentrations have reached steady state for the current site conditions. Because the iSOC™ system has not been reinstalled and the oxygen supply tanks were empty at the time of the June 2005 field event, these concentrations should be representative of baseline conditions. Lastly, oxygen concentrations continue to remain below the preferred range of greater than 5mg/L for all sampled wells.

The presence of ferrous iron is indicative of a site in the process of bioremediation via anaerobic microbial activity. Concentrations of ferrous iron were in the preferred range (greater than 1 mg/L) in source monitoring well MW-08 and perimeter well MW-13; however, MW-13 and MW-03 were the only wells to show increases since the last sampling event. The remaining wells exhibited decreases in ferrous iron concentration.

The trend of sulfate (Tables 2 and 3) measured in the groundwater shows that the concentrations have varied only slightly, compared to the previous quarter's sulfate concentrations. All of the sampled wells had a reduction in sulfate concentration compared to the previous sampling event. The most significant change in sulfate levels was the decrease recorded in MW-09. The overall concentration trend appears to be stabilizing, but has increased from the baseline event. The long term increase in sulfate concentrations is an indicator of aerobic conditions.

The presence of sulfide (i.e. hydrogen sulfide) is indicative of reducing conditions or anaerobic biodegradation. Monitoring well MW-03 was the only well that had an increase in sulfide. The remaining wells showed decreases in sulfide concentration from the last sampling event. Carbon dioxide levels have increased in all wells since the previous quarterly sampling event. Carbon dioxide is the daughter product of aerobic and anaerobic biological reactions. The increasing trend in carbon dioxide concentrations for this sampling event may indicate increased biological activity.

Alkalinity levels have increased in all wells since the last sampling event. Monitoring well MW-03 was the only well sampled with an alkalinity concentration less than the baseline concentration. The remaining wells had concentrations higher than or equal to concentrations recorded during the baseline sampling event. High alkalinity levels usually indicate that a site has a high buffering capacity and/or is an indication of biotic respiration.

The pH measurements have remained consistent and are within the preferred range for biodegradation. The groundwater temperature measured in site monitoring wells has decreased several degrees from the previous quarter. The drop in water temperature is attributed to seasonal temperature changes in the area. The temperature of the groundwater is in the range that provides an environment conducive to biodegradation.

Conclusions and Recommendations

Laboratory results from the June 2005 sampling event reveal an exceedance of 1-methylnapthalene in monitoring well MW-03. Otherwise, the concentration of PAHs continues to remain at low or non-detectable levels in the remaining wells. When compared to the baseline (9/4/2002) sampling event, the current results indicate a decreasing trend in the concentration of PAHs at site 1140 and in MW-03 in particular. This decrease is characteristic of the ongoing progress of natural attenuation during this post treatability study monitoring period. Removal of the iSOC™ system nine months prior to this last sampling event does not appear to have caused a rebound in PAH concentrations.

At the time of the June sampling event, the iSOC™ system had been offline for approximately nine months. Some of the wells exhibit a response to the removal of the system, while others show little reaction. This could be attributed to defects in the system noted earlier in the report, or by differences in lithology. Either of these could affect the ability of the iSOC™ system to infuse the ground with oxygen.

TtNUS has not reinstalled the iSOC™ system following removal for O&M in August 2004. The State of Florida requires periodic monitoring following operation of an active remediation system. Therefore, TtNUS recommends continued quarterly monitoring. If concentrations remain below Florida GCTLs, the site will qualify as a No Further Action site.

If you have any questions with regard to this submittal, please contact me by calling (850) 385-9899 or via e-mail at walkerg@ttnus.com.

Sincerely,

Gerald Walker, PG
Florida License Number PG-0001180
Task Order Manager

GW/co

Attachments (4)

c: T. Vaught, FDEP
G. Campbell, NAS Pensacola
D. Humbert, TtNUS (cover letter only)
M. Perry/File, TtNUS (unbound copy)
Project File, Tallahassee

If you have any questions with regard to this submittal, please contact me by calling (850) 385-9899 or via e-mail at walkerg@ttnus.com.

Sincerely,

Walter D. Olson for

Gerald Walker, PG
Florida License Number PG-0001180
Task Order Manager

GW/co

Attachments (4)

c: T. Vaught, FDEP
G. Campbell, NAS Pensacola
D. Humbert, TtNUS (cover letter only)
M. Perry/File, TtNUS (unbound copy)
Project File, Tallahassee

TABLES

TABLE 1

GROUNDWATER ELEVATION SUMMARY - SITE 1140NW
JUNE 6, 2005
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet BTOC)	Water Level Indicator Reading (feet BTOC)	Thickness of Free Product (feet)	Groundwater Elevation (feet)*
MW-1	6/8/2005	1512	30.00	23.61	6.07		23.93
MW-2	6/8/2005	1422	30.10	13.11	6.12		23.98
MW-3	6/8/2005	1430	29.96	10.71	6.25		23.71
MW-4	6/8/2005	1445	30.03	12.53	6.16		23.87
MW-5	6/8/2005	1416	30.03	12.58	6.00		24.03
MW-6	6/8/2005	1420	30.26	12.70	6.10		24.16
MW-7	6/8/2005		30.02	Not Located	Not Located		Not Located
MW-8	6/8/2005	1401	29.80	12.80	6.14		23.66
MW-9	6/8/2005	1409	29.80	13.00	6.11		23.69
MW-10	6/8/2005		29.86	Not Located	Not Located		Not Located
MW-11	6/8/2005		30.24	Not Accessible	Not Accessible		Not Accessible
MW-12	6/8/2005	1455	30.05	14.73	6.00		24.05
MW-13	6/8/2005	1406	29.73	12.90	6.24		23.49
MW-14	6/8/2005	1402	30.12	12.65	6.27		23.85
MW-15	6/8/2005		29.87	NA	NA		destroyed
MW-16	6/8/2005		30.23	Not Located	Not Located		Not Located

Notes:
* = Elevation based on an arbituary elevation of 30 feet at monitoring well MW-1
BTOC = Below top of casing
NA = Not Available

TABLE 2

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140NW
SOURCE AREA MONITORING WELLS
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-03							
Sample No.			OLFB-1140-MW03-01	OLFB-1140-MW03-06	OLFB-1140-MW03-07	OLFB-1140-MW03-08	OLFB-1140-MW03-07*	OLFB-1140-MW03-10	OLFB-1140-MW03-10**	OLFB-1140-MW03-12/13***
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/8/2005 / 9/07/2005
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)								
Polynuclear Aromatic Hydrocarbons[3] (µg/L)										
1-Methylnaphthalene	200	**20**	**160**	**53**	**40**	**23**	**31[J] (43)[J]**	**28**	12	**21 / 27**
2-Methylnaphthalene	200	**20**	**72**	**21**	7.3	8.4	19 (**24**)	2	<0.2	3.9 / 10
Acenaphthene	2100	210	4.2[J]	3[J]	2.8	2.7	1.4[J] (2.4[J])	2	1.9	1.5 / 1.6
Anthracene	21000	2100	<1.0	<1.9	<.079	0.24	0.12[J](0.18[J])	<.08	0.11[J]	.11[J] / .15[J]
Benzo(a)pyrene	20	0.2	<1.0	<2.2	<.089	<.09	<.2(<.2)	<.08	<0.2	<.030 / <.030
Fluoranthene	2800	280	10	<2.6	<.11	<.11	<.2(<.2)	0.1	<0.2	<.039 / .039
Fluorene	2800	280	9.2[J]	4.9	3.2	3.8	2.7[J] (4.1[J])	4	3.1	2.6 / 3.3
Naphthalene	200	**20**	**21**	6.3	5.8	3.4	3.4[J] (4.7[J])	6	0.37	1.0 / 2.0
Phenanthrene	2100	210	4.7[J]	2.4[J]	1.6	1.9 [J]	1.3 [J] (2.1[J])	2	1.4	0.93 / 1.4
Natural Attenuation Parameters[4] (mg/L)										
Sulfate	NC	NC	1.3	12.0	8.4	6.1	3.0 (3.2)	86	14	12
Total Organic Carbon	NC	NC	9.3	3.6	5	2.5	3.1 (2.91)	5.0	3.46	4.53

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
Bold indicates an exceedance of regulatory limits. **Bold** indicates which regulatory limit has been exceeded.
* Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW03-09 indicating the ninth sampling event of the study.
** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW03-11 indicating the eleventh sampling event of the study.
*** Denotes confirmatory sample taken on 9/07/2005
Results in parentheses are from field duplicate sample OLFB-1140-DU01-07 (Correct ID should be OLFB-1140-DU01-09)
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above regulatory criteria
mg/L = milligrams per liter
NC = no criteria, parameter measured for natural attenuation monitoring
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency

TABLE 2

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140NW
SOURCE AREA MONITORING WELLS
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSONPENSACOLA, FLORIDA
PENSACOLA, FLORIDA

Sample Location			MW-08							
Sample No.			OLFB-1140-MW08-01	OLFB-1140-MW08-06	OLFB-1140-MW08-07	OLFB-1140-MW08-08	OLFB-1140-MW08-07*	OLFB-1140-MW08-10	OLFB-1140-MW08-10**	OLFB-1140-MW08-12
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/2/2005	6/8/2005
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)								
Polynuclear Aromatic Hydrocarbons[3] (µg/L)										
1-Methylnaphthalene	200	**20**	1.7[J]	0.59	**26**	<.082	0.11[J]	<.08	<0.2	<.024
2-Methylnaphthalene	200	**20**	2.3	0.65	**35**	<.082	0.1[J]	<.08	<0.2	<.031
Acenaphthene	2100	210	3.8	1.0	1.4	1.6	0.58	0.4	0.34	0.46
Anthracene	21000	2100	0.48[J]	<.076	<.076	0.88[J]	0.065[J]	<.08	<0.2	<.050
Benzo(a)pyrene	20	0.2	<.1	0.11[J]	<.086	<.093	<.2	<.08	<0.2	<.030
Fluoranthene	2800	280	<.1	<.10	<1.0	<.11	<.2	<.1	<0.2	<.039
Fluorene	2800	280	1.9	1.4	2	2.2	0.85	0.6	0.61	0.81
Naphthalene	200	20	<2.0	1.0	16	0.2J	<.2	<.05	<0.2	<.034
Phenanthrene	2100	210	<1.0	<.076	0.35	0.23	<.2	<.08	<0.2	<.041
Natural Attenuation Parameters[4] (mg/L)										
Sulfate	NC	NC	5.64	7.8	8.8	5.0	6.1	24	25	20
Total Organic Carbon	NC	NC	8.2	6.5	6.5	6.0	3.74	5.6	1.88[J]	5.41

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
Bold indicates an exceedance of regulatory limits. **Bold** indicates which regulatory limit has been exceeded.
* Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW08-09 indicating the ninth sampling event of the study.
** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW08-11 indicating the eleventh sampling event of the study.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above regulatory criteria
mg/L = milligrams per liter
NC = no criteria, parameter measured for natural attenuation monitoring
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency

TABLE 2

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140NW
SOURCE AREA MONITORING WELLS
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-09							
Sample No.			OLFB-1140-MW09-01	OLFB-1140-MW09-06	OLFB-1140-MW09-07	OLFB-1140-MW09-08	OLFB-1140-MW09-07*	OLFB-1140-MW09-10	OLFB-1140-MW09-10**	OLFB-1140-MW09-12
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2003	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/2/2005	6/8/2005
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)								
Polynuclear Aromatic Hydrocarbons[3] (µg/L)										
1-Methylnaphthalene	200	**20**	**35**	13	7.9	1.4[J]	1.3	<.08	0.25	0.69
2-Methylnaphthalene	200	**20**	**52**	**33**	**22**	16	1.5	<.08	<0.2	<.031
Acenaphthene	2100	210	8.1	1.7[J]	1.1	1.0[J]	0.71	0.6	0.90	0.72
Anthracene	21000	2100	<5.0	<1.5	<.077	<.082	.057[J]	<.08	0.089[J]	<.050
Benzo(a)pyrene	20	0.2	<.5	<1.7	<.086	<.093	<.2	<.09	<0.2	<.030
Fluoranthene	2800	280	<.5	<2.1	<.1	<.11	<.2	<.1	<0.2	<.039
Fluorene	2800	280	1.9[J]	1.2[J]	1.2	1.4[J]	1.4	0.8	1.4	1.1
Naphthalene	200	**20**	**46**	12	4.4	4.7	2.8	<.05	<0.2	0.27
Phenanthrene	2100	210	0.55[J]	<1.5	0.38	<.082	0.52	0.1[J]	0.26	<.041
Natural Attenuation Parameters[4] (mg/L)										
Sulfate	NC	NC	3.6	4.1	4.5	4.6	5.2	46	40.0	20.0
Total Organic Carbon	NC	NC	7.9	7.8	5.3	4.2	4.84	3.4	2.27	5.56

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
Bold indicates an exceedance of regulatory limits. **Bold** indicates which regulatory limit has been exceeded.
* Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW09-09 indicating the ninth sampling event of the study.
** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW09-11 indicating the eleventh sampling event of the study.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above regulatory criteria
mg/L = milligrams per liter
NC = no criteria, parameter measured for natural attenuation monitoring
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency
An equipment blank was collected and analyzed for the same analytes; no analytes were detected above instrument detection limits.

TABLE 3

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140 NW
PERIMETER AREA MONITORING WELLS/DUPLICATES
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA
PAGE 1 OF 3

Sample Location			MW-02							
Sample No.			OLFB-1140-MW2-01	OLFB-1140-MW2-06	OLFB-1140-MW2-07	OLFB-1140-MW2-08	OLFB-1140-MW2-07*	OLFB-1140-MW2-10	OLFB-1140-MW2-10**	OLFB-1140-MW2-12
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/2/2005	6/8/2005
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)								
Polynuclear Aromatic Hydrocarbons[3] (µg/L)										
1-Methylnaphthalene	20	20	<2.0	<.077	<.078	<.077	<.2	<.08	<0.2	<.024
2-Methylnaphthalene	20	20	<2.0	<.077	0.079[J]	<.077	<.2	<.08	<0.2	<.031
Acenaphthene	210	210	<1.0	<.077	<.078	<.077	<.2	<.08	<0.2	<.087
Anthracene	2100	2100	<1.0	<.077	<.078	<.077	<.2	<.08	<0.2	<.050
Fluorene	280	280	<1.0	<.058	<.059	<.058	<.2	<.06	<0.2	<.024
Naphthalene	20	20	<2.0	<.048	<.049	<.048	<.2	<.05	<0.2	<.034
Phenanthrene	210	210	<1.0	<.077	<.078	<.077	<.2	<.08	<0.2	<.041
Natural Attenuation Parameters[4] (mg/L)										
Sulfate	NC	NC	8.2	8.6	7.2	5.2	5.5	7.5	12.0	7.6
Total Organic Carbon	NC	NC	1.1	0.64	0.72[J]	0.62[J]	1.04	0.73[J]	<2.0	1.41[J]

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.

[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.

[3] SW-846 8310

[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:

* Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW02-09.

** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW02-11.

µg/L = micrograms per liter

[J] Indicates the presence of a chemical at an estimated concentration.

ND = not detected above instrument detection limits.

mg/L = milligrams per liter

NC = no criteria

F.A.C. = Florida Administrative Code

USEPA = United States Environmental Protection Agency

TABLE 3

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140 NW
PERIMETER AREA MONITORING WELLS/DUPLICATES
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA
PAGE 2 OF 3

Sample Location			MW-13							
Sample No.			OLFB-1140-MW13-01	OLFB-1140-MW13-06	OLFB-1140-MW13-07	OLFB-1140-MW13-08	OLFB-1140-MW13-07*	OLFB-1140-MW13-10	OLFB-1140-MW2-10**	OLFB-1140-MW2-12
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/2/2005	6/8/2005
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)								
Polynuclear Aromatic Hydrocarbons[3] (µg/L)										
1-Methylnaphthalene	20	20	<2.0	0.17[J]	16	15	<.2	<.08	<0.2	3.9
2-Methylnaphthalene	20	20	0.83[J]	0.16[J]	19	15	<.2	<.08	<0.2	<.031
Acenaphthene	210	210	7.8	1.3	1.2	1.6[J]	0.68	0.6	0.39	0.78
Anthracene	2100	2100	0.19[J]	<.076	<.078	.085[J]	.06[J]	<.08	<0.2	<.050
Fluorene	280	280	0.95[J]	1.4	1.8	2.1	1.6	1.0	0.6	1.1
Naphthalene	20	20	<2.0	0.24	13	8.4	<.2	<.05	<0.2	0.21
Phenanthrene	210	210	0.37[J]	<.076	<.078	.14[J]	.061[J]	<.08	<0.2	<.041
Natural Attenuation Parameters[4] (mg/L)										
Sulfate	NC	NC	6.41	9.0	3.8	1.6	6.6	29	33	32.0
Total Organic Carbon	NC	NC	4.6	5.3	7.2	7.8	3.96	3.2	1.83[J]	4.62

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
* Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW13-09.
** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW13-11.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
ND = not detected above instrument detection limits.
mg/L = milligrams per liter
NC = no criteria
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency

TABLE 3

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER - SITE 1140 NW
PERIMETER AREA MONITORING WELLS/DUPLICATES
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON PENSACOLA, FLORIDA
PENSACOLA, FLORIDA

Sample Location			Duplicate Sample							
Sample No.			OLFB-1140-DUP01-01	OLFB-1140-DUP01-06	OLFB-1140-DUP01-07	OLFB-1140-DUP01-08	OLFB-1140-MW13-07*	OLFB-1140-DUP01-10	OLFB-1140-DU01-10**	OLFB-1140-MW2-12
Duplicate of Sample			MW-13	MW-13	MW-13	MW-13	MW-13	MW-13	MW-3	MW-8
Event			Baseline	Year 2, Quarter 1	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	11/17/2003	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/8/2005
	FDEP Action Level[1] (µg/L)	GCTL[2] (µg/L)								
Polynuclear Aromatic Hydrocarbons[3] (µg/L)										
1-Methylnaphthalene	20	20	<2.0	0.17[J]	16	15	<.2	<.08	12	<.024
2-Methylnaphthalene	20	20	0.83[J]	0.16[J]	19	15	<.2	<.08	<0.2	<.031
Acenaphthene	210	210	7.8	1.3	1.2	1.6[J]	0.68	0.6	1.5	0.43
Anthracene	2100	2100	0.19[J]	<.076	<.078	.085[J]	.06[J]	<.08	.089[J]	<.050
Fluorene	280	280	0.95[J]	1.4	1.8	2.1	1.6	1.0	<0.2	0.74
Naphthalene	20	20	<2.0	0.24	13	8.4	<.2	<.05	0.33	<.034
Phenanthrene	210	210	0.37[J]	<.076	<.078	.14[J]	.061[J]	<.08	1.3	<.041
Natural Attenuation Parameters[4] (mg/L)										
Sulfate	NC	NC	6.41	9.0	3.8	1.6	6.6	29	14.0	20.0
Total Organic Carbon	NC	NC	4.6	5.3	7.2	7.8	3.96	3.2	2.87	7.48

[1] FDEP Action Levels for Source Area Monitoring Wells from Natural Attenuation Default Criteria, Chapter 62-770, F.A.C.
[2] Groundwater Cleanup Target Levels from Chapter 62-777, F.A.C.
[3] SW-846 8310
[4] Sulfate (USEPA 375.4); Total Organic Carbon (USEPA 415.1)

Notes:
* Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW13-09.
** Sample labeled incorrectly in the field. Correct ID should be OLFB-1140-MW13-11.
µg/L = micrograms per liter
[J] Indicates the presence of a chemical at an estimated concentration.
NA = duplicate was not detected.
ND = not detected above instrument detection limits.
mg/L = milligrams per liter
NC = no criteria
F.A.C. = Florida Administrative Code
USEPA = United States Environmental Protection Agency
An equipment blank was collected an analyzed for the same analytes; no analytes were detected above instrument detection limits.

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-02						
Sample No.			OLFB-1140-MW02-01	OLFB-1140-MW02-07	OLFB-1140-MW02-08	OLFB-1140-MW02-09	OLFB-1140-MW02-10	OLFB-1140-MW02-11	OLFB-1140-MW02-12
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005
	Preferred Range	Units							
Field Natural Attenuation Parameters									
Alkalinity	> 2X	mg/L	30	20.0	20.0	40	20	16	33
Carbon Dioxide	> 2X	mg/L	23	13.0	20.0	>2500	25	<10.0	22
Ferrous Iron	> 1 mg/L	mg/L	0.2	0.06	0.75	0.24	1.27	0.0	0.0
Hydrogen Sulfide	NA	mg/L	ND	ND	ND	0	0.1	0.0	NM
Sulfide	NA	mg/L	NM	0.06	0.02	NM	0.04	0.02	0.0
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	3.0	3.0	1.0	1.0	4.0	1.5
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	0.79	18%	16.2%	1.04	0.83	1.86	1.04
pH	5 < pH < 9	standard units	5.87	6.50	5.84	5.92	5.98	6.20	6.01
Specific Conductivity	NA	mS / cm	0.109	0.139	0.095	0.083	0.154	0.216	0.097
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	+ 79	-35.6	151	184.9	-97.4	88.5	10.1
Temperature	> 20 °C	°C	28.37	20.44	24.81	28.44	24.76	21.06	25.39

Notes:

2X = two times background concentration
mg/L = milligrams per liter
NA = not applicable
ND = not detected
NM = not measured
mS/cm = millisiemen per centimeter
mV = millivolts
°C = degrees Celsius

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-03						
Sample No.			OLFB-1140-MW03-01	OLFB-1140-MW03-07	OLFB-1140-MW03-08	OLFB-1140-MW03-09	OLFB-1140-MW03-10	OLFB-1140-MW03-11	OLFB-1140-MW03-12
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005
	Preferred Range	Units							
Field Natural Attenuation Parameters									
Alkalinity	> 2X	mg/L	90	40	25	25	25	34	46
Carbon Dioxide	> 2X	mg/L	40	14	35	20	28	15	22
Ferrous Iron	> 1 mg/L	mg/L	1.6	0.88	0.88	0.29	1.5	0.43	0.7
Hydrogen Sulfide	NA	mg/L	5	0.30	0.30	0.1	75	5	NM
Sulfide	NA	mg/L	NM	0.61	0.25	0.37	0.8	0.8	0.46
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	1.0	0.8	1.0	1.0	2.0	0.25
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	0.22	3.4%	6.3%	0.14	0.3	0.62	0.18
pH	5 < pH < 9	standard units	6.13	6.29	5.93	6.06	6.05	6.45	6.35
Specific Conductivity	NA	mS / cm	0.181	0.211	0.132	0.86	3.091	0.880	0.138
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	- 54	-55.6	31	-91	-219.7	-94.5	-153.9
Temperature	> 20 °C	°C	28.70	19.65	24.50	27.66	24.08	20.22	24.92

Notes:

2X = two times background concentration
mg/L = milligrams per liter
NA = not applicable
ND = not detected
NM = not measured
mS/cm = millisiemen per centimeter
mV = millivolts
°C = degrees Celsius

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON PENSACOLA, FLORIDA
PENSACOLA, FLORIDA

Sample Location			MW-08						
Sample No.			OLFB-1140-MW08-01	OLFB-1140-MW08-07	OLFB-1140-MW08-08	OLFB-1140-MW08-09	OLFB-1140-MW08-10	OLFB-1140-MW08-11	OLFB-1140-MW08-12
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005
	Preferred Range	Units							
Field Natural Attenuation Parameters									
Alkalinity	> 2X	mg/L	42	25	23	25	1	23	42
Carbon Dioxide	> 2X	mg/L	50	14	45	20	25	22	28
Ferrous Iron	> 1 mg/L	mg/L	1.8	1.23	2.43	0.64	1.21	2.93	1.67
Hydrogen Sulfide	NA	mg/L	5.0	0.30	1.00	0.3	0.3	0.0	NM
Sulfide	NA	mg/L	NM	0.46	0.13	0.13	0.7	0.03	0.13
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	1.5	1.0	1.0	1.0	2.5	0.35
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	0.13	0.29	2.13	0.2	6.7	0.32	0.36
pH	5 < pH < 9	standard units	6.06	6.0	5.91	6.01	5.98	6.16	6.11
Specific Conductivity	NA	mS / cm	0.158	0.169	0.138	0.098	0.694	0.71	0.355
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	- 23.2	-149.4	99.4	-53.7	-99.5	-89.4	-88.0
Temperature	> 20 °C	°C	28.92	20.63	26.03	28.7	23.85	21.55	24.95

Notes:

2X = two times background concentration
mg/L = milligrams per liter
NA = not applicable
NM = not measured
mS/cm = millisiemen per centimeter
mV = millivolts
°C = degrees Celsius

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-09						
Sample No.			OLFB-1140-MW09-01	OLFB-1140-MW09-07	OLFB-1140-MW09-08	OLFB-1140-MW09-09	OLFB-1140-MW09-10	OLFB-1140-MW09-11	OLFB-1140-MW09-12
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 2	Year 3, Quarter 3
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005
	Preferred Range	Units							
Field Natural Attenuation Parameters									
Alkalinity	> 2X	mg/L	24	40	42	20	35	35	45
Carbon Dioxide	> 2X	mg/L	30	16	35	20	29	24	34
Ferrous Iron	> 1 mg/L	mg/L	1.4	0.9	0.01	1	1.66	2.71	0.64
Hydrogen Sulfide	NA	mg/L	1.0	0.50	0.30	0.3	4	0.2	NM
Sulfide	NA	mg/L	NM	0.35	0.01	0.33	0.32	0.09	0.16
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	2.0	2.0	1.0	1.0	1.0	0.9
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	0.30	0.37	8.20%	0.19	0.47	0.46	0.72
pH	5 < pH < 9	standard units	5.81	6.14	6.10	5.96	6.22	6.19	6.27
Specific Conductivity	NA	mS / cm	0.124	0.186	0.131	0.107	1.473	1.20	0.380
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	- 2.5	-172.4	-60	-88	-153.3	5.4	-111.8
Temperature	> 20 °C	°C	29.09	20.85	25.82	28.63	24.08	21.62	25.18

Notes:

2X = two times background concentration
mg/L = milligrams per liter
NA = not applicable
NM = not measured
mS/cm = millisiemen per centimeter
mV = millivolts
°C = degrees Celsius

TABLE 4

SUMMARY OF NATURAL ATTENUATION PARAMETERS IN GROUNDWATER - SITE 1140 NW
THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT
OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

Sample Location			MW-13						
Sample No.			OLFB-1140-MW13-01	OLFB-1140-MW13-07	OLFB-1140-MW13-08	OLFB-1140-MW13-09	OLFB-1140-MW13-10	OLFB-1140-MW13-11	OLFB-1140-MW13-12
Event			Baseline	Year 2, Quarter 2	Year 2, Quarter 3	Year 2, Quarter 4	Year 3, Quarter 1	Year 3, Quarter 1	Year 3, Quarter 3
Collect Date			9/4/2002	3/9/2004	6/7/2004	9/1/2004	12/1/2004	3/1/2005	6/7/2005
	Preferred Range	Units							
Field Natural Attenuation Parameters									
Alkalinity	> 2X	mg/L	35	27.5	30.0	20	20	22	43
Carbon Dioxide	> 2X	mg/L	15	15	28	12	25	20	33
Ferrous Iron	> 1 mg/L	mg/L	1.2	0.74	0.16	0.69	1.27	0.86	1.41
Hydrogen Sulfide	NA	mg/L	0.3	0.5	0.5	0.0	0.1	0.0	NM
Sulfide	NA	mg/L	NM	0.19	0.02	0.03	0.04	0.04	0.08
Dissolved Oxygen (CHEMetrics)	> 5 mg/L	mg/L	NM	3.0	2.0	1.0	1.0	3.0	1.5
Dissolved Oxygen (YSI®)	> 5 mg/L	mg/L	1.04	16.5%	13.7%	0.96	1.25	1.10	1.20
pH	5 < pH < 9	standard units	4.84	6.18	4.72	5.98	5.97	6.03	6.06
Specific Conductivity	NA	mS / cm	0.115	0.176	0.126	0.102	0.792	0.93	0.497
Oxidation Reduction Potential	<50 mV or <-100 mV	mV	+ 74.4	-46.3	40.0	-18.5	-54.4	-36.8	-53.8
Temperature	> 20 °C	°C	29.40	21.08	25.77	28.81	24.75	21.75	25.25

Notes:

2X = two times background concentration
mg/L = milligrams per liter
NA = not applicable
NM = not measured
mS/cm = millisiemen per centimeter
mV = millivolts
°C = degrees Celsius

FIGURES

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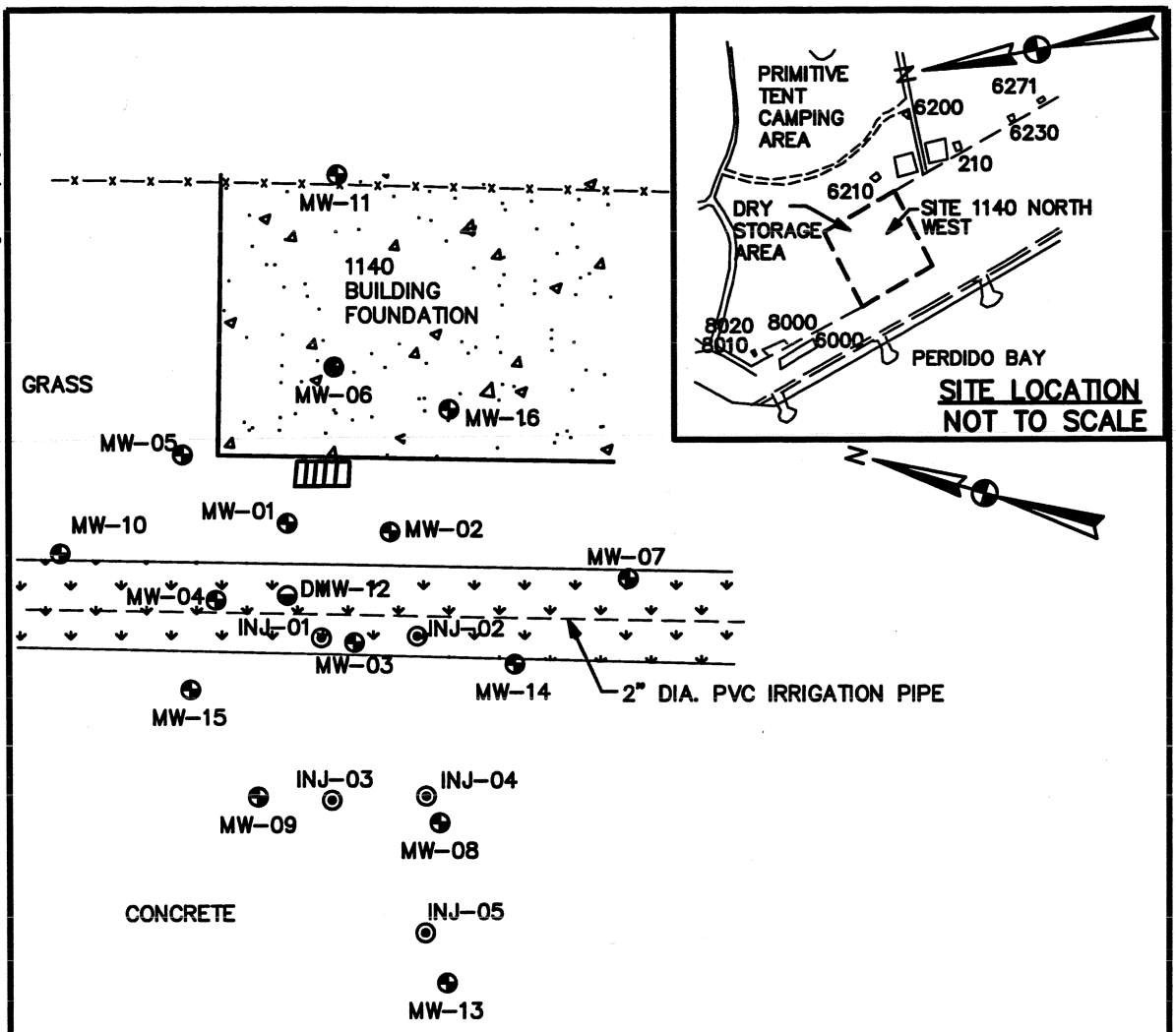


LEGEND:

INJ-03	INJECTION WELL LOCATION AND DESIGNATION
MW-15	SHALLOW MONITORING WELL LOCATION AND DESIGNATION
DMW-12	DEEP MONITORING WELL LOCATION AND DESIGNATION
	LANDSCAPE ISLAND

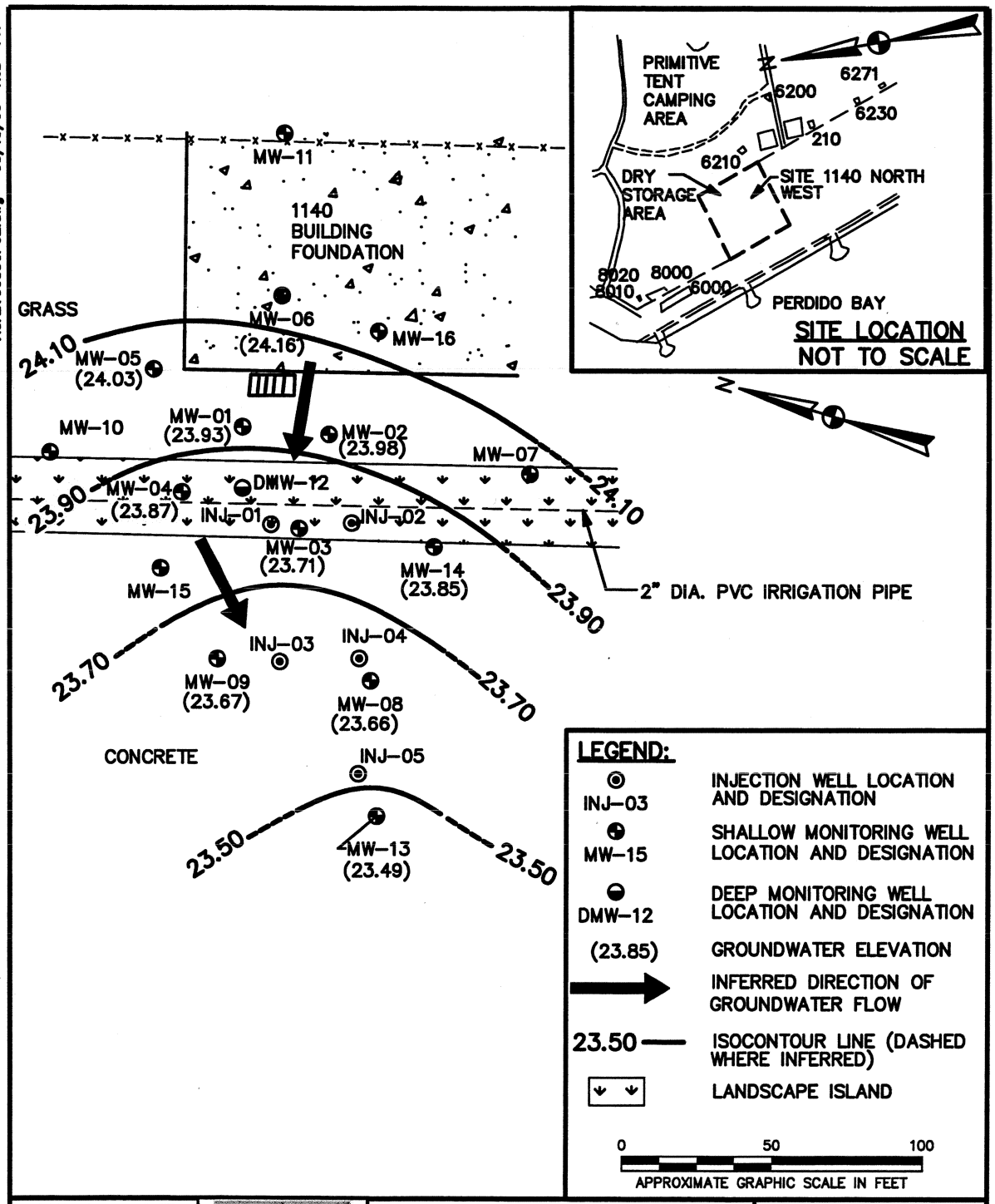
0 50 100

APPROXIMATE GRAPHIC SCALE IN FEET

DRAWN BY DM	DATE 8/12/05	SITE PLAN SITE 1140 NW THIRD QUARTER YEAR 3 GROUNDWATER MONITORING LETTER REPORT OLF BRONSON PENSACOLA, FLORIDA	CONTRACT NO. 5967
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED	NAVFAC		DRAWING NO. FIGURE 1 / REV. 0

FORM CADD NO. SDIV-AV.DWG - REV 1 - 9/10/98

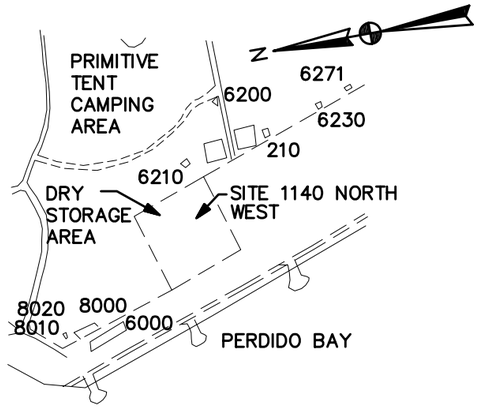
ACAD:0055CP02.dwg 08/15/05 HJB PIT



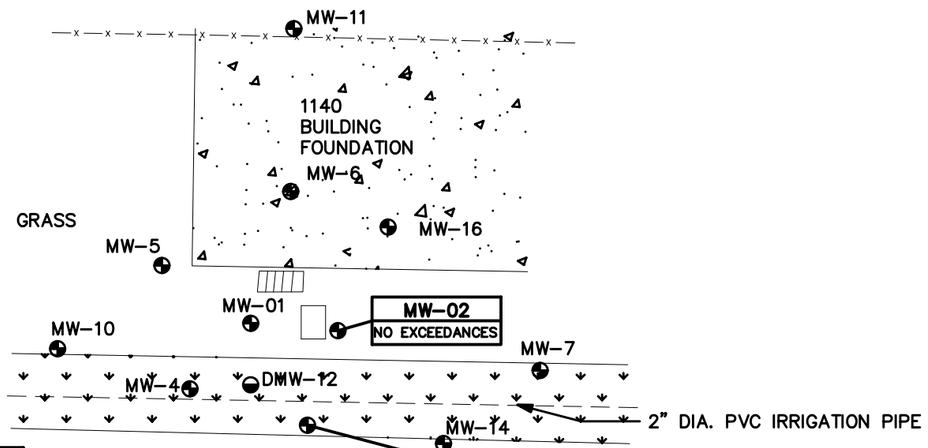
DRAWN BY DM	DATE 2/9/05	POTENTIOMETRIC SURFACE MAP JUNE 8, 2005 SITE 1140 NW THIRD QUARTER YEAR 3 GROUNDWATER MONITORING LETTER REPORT OLF BRONSON PENSACOLA, FLORIDA	CONTRACT NO. 0380
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED		NAVFAC	DRAWING NO. FIGURE 2 / REV. 0

FORM CADD NO. SDIV-AV.DWG - REV 1 - 9/10/98

ACAD: 0055CP03.dwg 11/02/05 HJB PIT



SITE LOCATION
NOT TO SCALE



MW-09									
PARAMETER	GCTL	BL	Y2,Q1	Y2,Q2	Y2,Q3	Y2,Q4	Y3,Q1	Y3,Q2	Y3,Q3
1-METHYLNAPHTHALENE	20	35	13	7.9	1.4J	1.3	<.08	0.25	.69
2-METHYLNAPHTHALENE	20	52	33	22	16	1.5	<.08	<0.2	<.031
NAPHTHALENE	20	46	12	4.4	4.7	2.8	<.08	<0.2	<.27

MW-03/MW-03 (DUPLICATE)												
PARAMETER	GCTL	BL	Y2,Q1	Y2,Q2	Y2,Q3	Y2,Q4	DUP	Y3,Q1	Y3,Q2	DUP	Y3,Q3	*
1-METHYLNAPHTHALENE	20	160	53	40	23	31J	43J	2.8	12	12	21	27
2-METHYLNAPHTHALENE	20	72	21	7.3	8.4	19	24	2	<0.2	<0.2	3.9	10
NAPHTHALENE	20	21	6.3	5.8	3.4	3.4J	4.7J	6	0.37	0.33	1.0	2.0

MW-08/MW-08 (DUPLICATE)										
PARAMETER	GCTL	BL	Y2,Q1	Y2,Q2	Y2,Q3	Y2,Q4	Y3,Q1	Y3,Q2	Y3,Q3	(DUP.)
1-METHYLNAPHTHALENE	20	1.7J	0.59	26	<.082	0.11J	<.08	<0.2	<.024	<.024
2-METHYLNAPHTHALENE	20	2.3	0.65	35	<.082	0.1J	<.08	<0.2	<.031	<.031

MW-13/MW-13(DUPLICATE)											
PARAMETER	GCTL	BL	Y2,Q1	Y2,Q1 (DUP.)	Y2,Q2	Y2,Q2 (DUP.)	Y2,Q3	Y2,Q3 (DUP.)	Y3,Q1	Y3,Q2 (DUP.)	Y3,Q3
1-METHYLNAPHTHALENE	20	ND	0.17J	0.19J	16	21	15	13	<0.8	<0.2	3.9
2-METHYLNAPHTHALENE	20	0.83J	0.16J	0.18J	19	26	15	11	<0.8	<0.2	<.031

LEGEND:

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- J — COMPOUND DETECTED AT AN ESTIMATED CONCENTRATION
- ND — NOT DETECTED
- * — CONFIRMATORY SAMPLE, TAKEN 9/7/2005

GCTL | BL | Y2,Q1 | Y2,Q2 SAMPLING EVENT

- BL = BASELINE, PRE-INJECTION EVENT (1ST QUARTER, 9/4/2002)
- Y2,Q1 = YEAR 2, QUARTER 1 (6TH QUARTER, 11/17/2003)
- Y2,Q2 = YEAR 2, QUARTER 2 (7TH QUARTER, 3/9/2004)
- Y2,Q3 = YEAR 2, QUARTER 3 (8TH QUARTER, 6/7/2004)
- Y2,Q4 = YEAR 2, QUARTER 4 (9TH QUARTER, 9/1/2004)
- Y3,Q1 = YEAR 3, QUARTER 1 (10TH QUARTER, 12/1/2004)
- Y3,Q2 = YEAR 3, QUARTER 2 (11TH QUARTER, 3/1/2005)
- Y3,Q3 = YEAR 3, QUARTER 3 (12TH QUARTER, 6/8/2005)

NOTES:

1. ALL CONCENTRATIONS ARE REPORTED IN MICROGRAMS PER LITER (ug/L)
2. GCTL = GROUNDWATER CLEANUP TARGET LEVEL FROM CHAPTER 62-777, F.A.C.

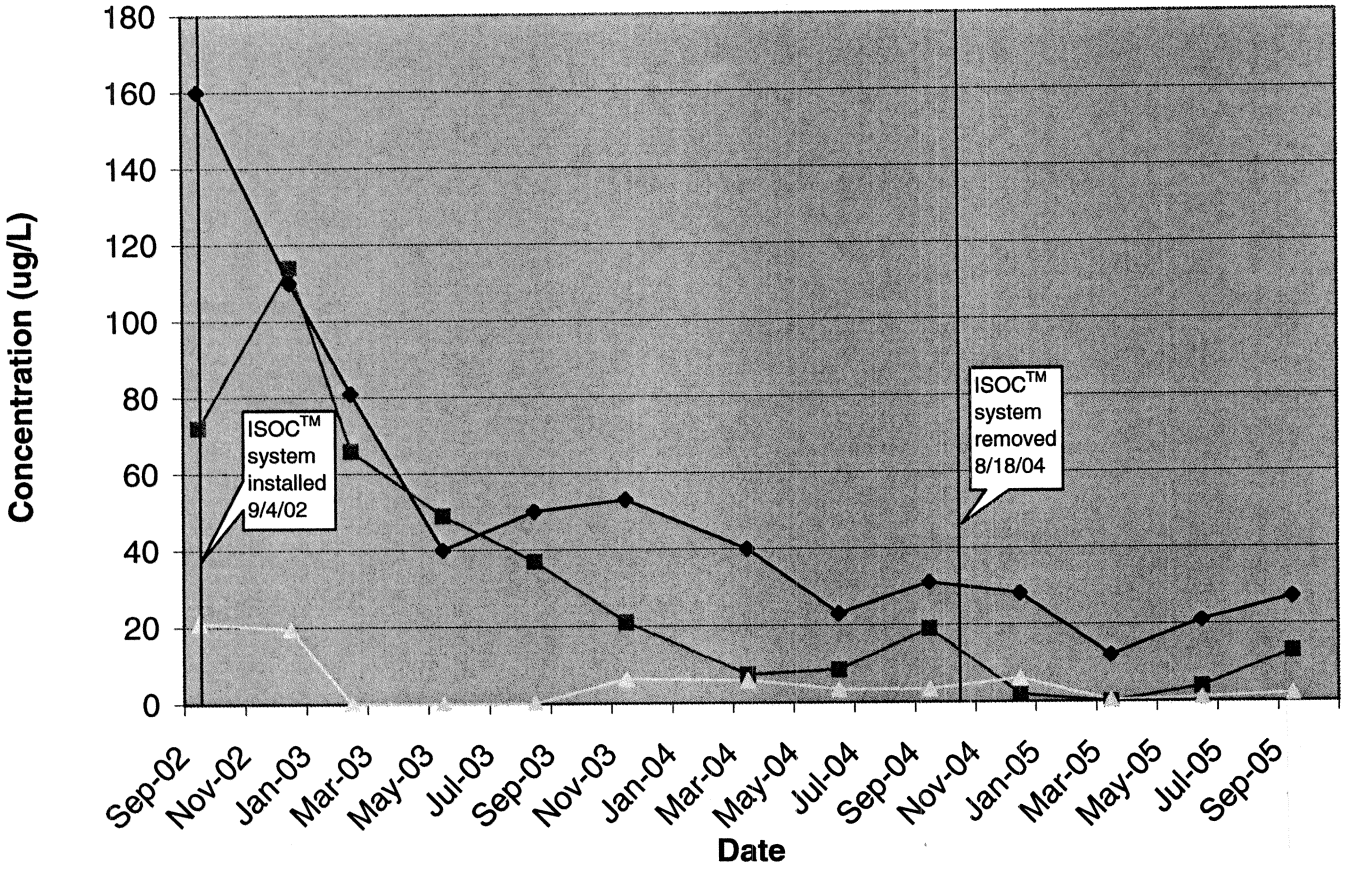
0 50 100
GRAPHIC SCALE IN FEET

DRAWN BY DM	DATE 8/15/05	SUMMARY OF GROUNDWATER ANALYTICAL RESULTS SITE 1140 NW THIRD QUARTER, YEAR 3 GROUNDWATER MONITORING LETTER REPORT OLF BRONSON PENSACOLA, FLORIDA	CONTRACT NO. 5967
CHECKED BY	DATE		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE AS NOTED			DRAWING NO. FIGURE 3 / REV. 0

NAVFAC

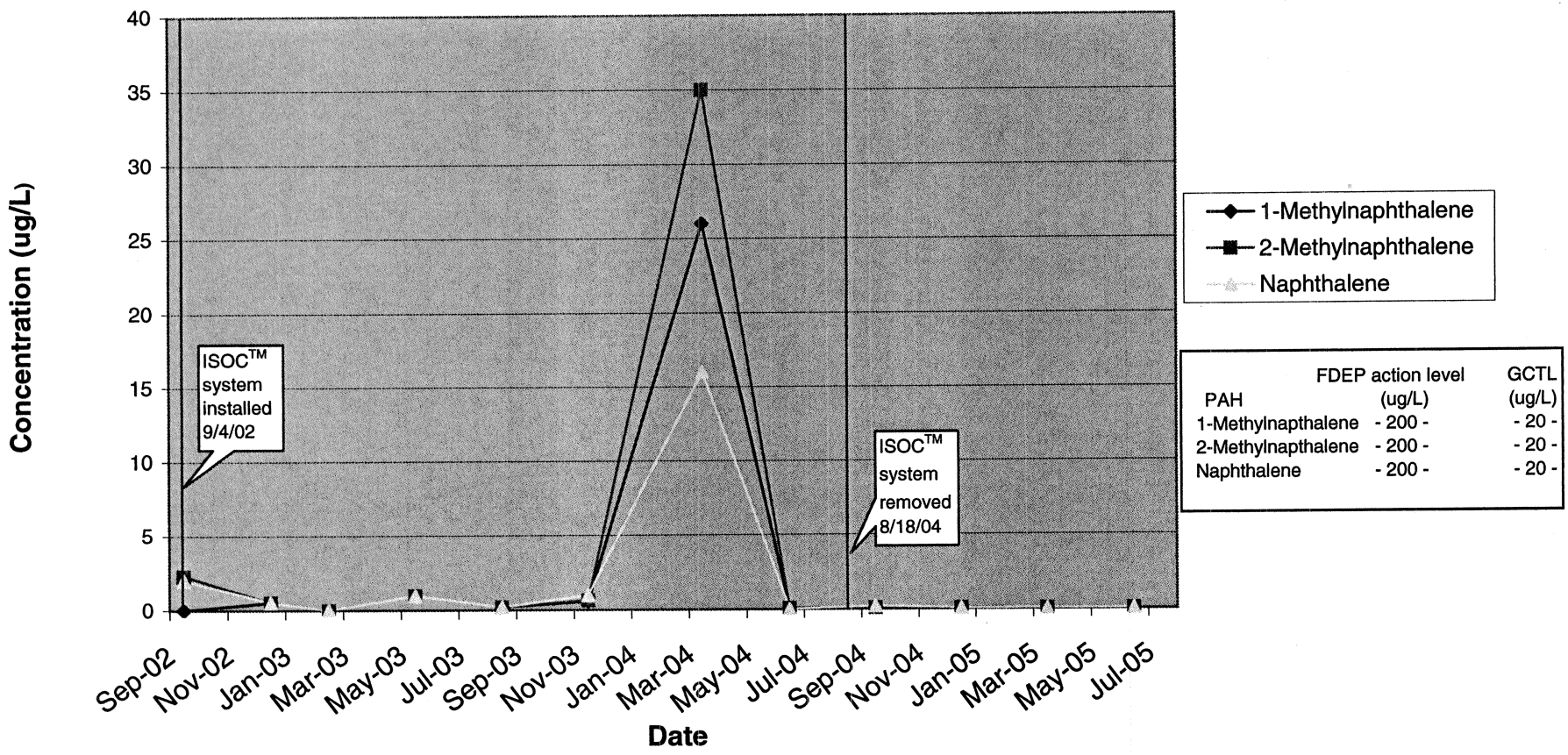
FORM CADD NO. SDIV-BH.DWG - REV 1 - 9/10/98

FIGURE 4
SOURCE AREA MONITORING WELL MW-03
OUTLYING LANDING FIELD BRONSON, PENSACOLA FLORIDA



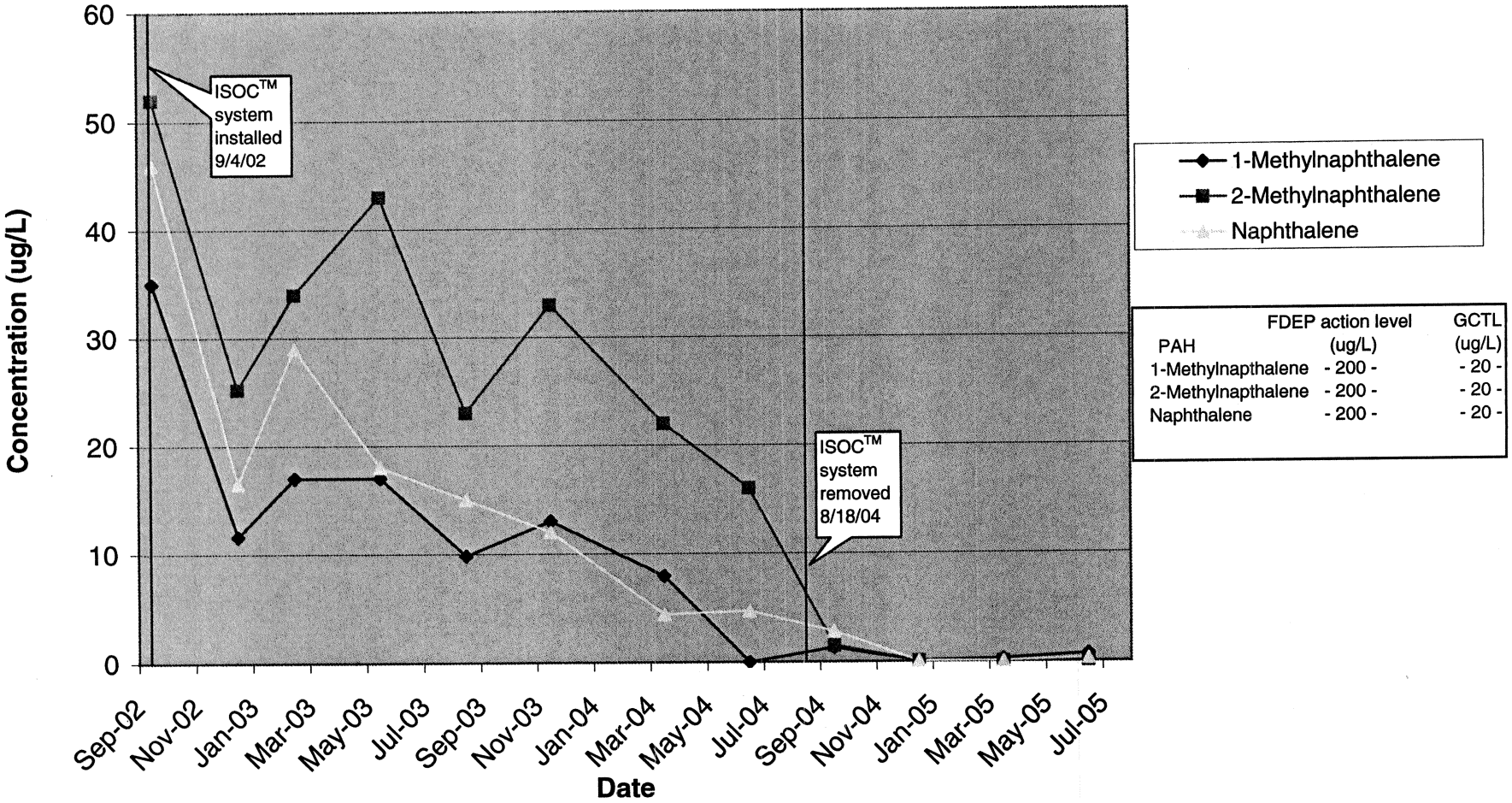
PAH	FDEP action level (ug/L)	GCTL (ug/L)
1-Methylnapthalene	- 200 -	- 20 -
2-Methylnapthalene	- 200 -	- 20 -
Naphthalene	- 200 -	- 20 -

FIGURE 5
SOURCE AREA MONITORING WELL MW-08
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA



PAH	FDEP action level (ug/L)	GCTL (ug/L)
1-Methylnapthalene	- 200 -	- 20 -
2-Methylnapthalene	- 200 -	- 20 -
Naphthalene	- 200 -	- 20 -

FIGURE 6
SOURCE AREA MONITORING WELL MW-09
OULYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA



PAH	FDEP action level (ug/L)	GCTL (ug/L)
1-Methylnapthalene	- 200 -	- 20 -
2-Methylnapthalene	- 200 -	- 20 -
Naphthalene	- 200 -	- 20 -

ATTACHMENT A

FIELD DATA FORMS

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME :

SITE NAME: 1140 & 1120 [redacted]

PROJECT No.:

INSTRUMENT NAME/MODEL: YSI 556 MPS

MANUFACTURER: YSI

SERIAL NUMBER: 04613203

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	~~Post-~~ calibration	Pre-calibration	Post-calibration		
6/7/05	04314	C. Odom		245.0	[redacted]	240.7	[redacted]	691 Redox
					1.494	1.426		411062 Cond
				7[redacted]	7.02	7.00	4000	Ph 7.0
					4.06	4.00	4098	4.0
					103.2	102.5		DO
6/8/05	04314	C. Odom			246.0	240.1	691	Redox
					1.419	1.412	411062	Cond
					7.00	6.99	4000	Ph 7.0
					3.97	3.99	4098	4.0

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME :

SITE NAME: site 1/20 & 1/40

PROJECT No.:

INSTRUMENT NAME/MODEL: YSI 556 MPS

MANUFACTURER: YSI

SERIAL NUMBER: 04K16614

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
6/7/05	04491	C. Odom			236.9	239.5	691	Redox
					1.224	1.434	141C082	Cond
					9.99	7.01	4000	Ph 7.0
					4.17	4.00	4098	Ph 4.0

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME :

SITE NAME: 1140 NW

PROJECT No.:

INSTRUMENT NAME/MODEL: Lamotte 2020

MANUFACTURER: Lamotte

SERIAL NUMBER: 4983-1704

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
9/1/05					8.9	10.0		10.0
					1.0			

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bronson Site 1140
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW13-12
Sample Location:
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date: 7 June 2005								
Time: 0750								
Method: Low Flow		6.06	.497	25.25	20.9	1.20	-53.8	0750

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 7 June 2005								
Method: Low Flow	1 liter	5.93	0.463	24.82	67.2	1.22	38.0	0726
Monitor Reading (ppm): NA	2 liter	6.03	0.431	25.07	40.4	2.06	-26.4	0731
Well Casing Diameter & Material	3 liter	6.03	0.480	25.21	19.1	1.35	-42.1	0736
Type: PVC 2 inch	4 liter	6.06	0.499	25.24	20.3	1.27	-50.9	0741
Total Well Depth (TD):	5 liter	6.06	0.497	25.25	20.9	1.20	-53.8	0746
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs): 0723								
End Purge (hrs): 0748								
Total Purge Time (min): ~~0748~~	15							
Total Vol. Purged (gal/L): 5L								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8270C SIM - PAHs	N/A	2 - 1L Amber	YES / NO
USEPA 300.0 - Sulfate	4degC	1 - 125mL HDPE	YES / NO
USEPA 415.1 - TOC	4degC	1-2oz jar	YES / NO

NATURAL ATTENUATION PARAMETERS / OBSERVATIONS / NOTES

Field Test Kit Results

Dissolved Oxygen	1.5
Ferrous Iron	1.41
Hydrogen Sulfide	
Carbon Dioxide	33
Alkalinity	43
Sulfide	.08

Circle if Applicable:

MS/MSD	Duplicate ID No.:	Signature(s):
		Larry W Smith

TBD: To Be Determined

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bronson Site 1140
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW02-12
Sample Location:
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date: 08 June 2005								
Time: 0930								
Method: Low Flow	Clear	6.01	0.097	25.39	2.60	1.04	10.1	0930

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 08 June 2005								
Method: Low Flow	0.45	6.06	0.108	25.37	3.0	0.98	0.2	0855
Monitor Reading (ppm): NA	1.5	6.04	0.098	25.43	2.74	1.06	7.2	0900
Well Casing Diameter & Material	2.5	6.02	0.097	25.39	2.60	1.03	8.2	0907
Type: PVC 2inch	3.5	6.01	0.097	25.39	2.60	1.04	10.1	0915
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs): 0842								
End Purge (hrs): 0925								
Total Purge Time (min): 42								
Total Vol. Purged (gal/L): 7.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8270C SIM - PAHs	N/A	2 - 1L Amber	YES / NO
USEPA 300.0 - Sulfate	4degC	1 - 125mL HDPE	YES / NO
USEPA 415.1 - TOC	4degC	1-2oz jar	YES / NO

NATURAL ATTENUATION PARAMETERS / OBSERVATIONS / NOTES

Field Test Kit Results

Dissolved Oxygen	1.5
Ferrous Iron	0.00
Hydrogen Sulfide	
Carbon Dioxide	22
Alkalinity	33
Sulfide	0.00

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s): Gary W. Smith

TBD: To Be Determined

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bronson Site 1140
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW03-12
Sample Location:
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date: 08 June 2005								
Time: 1005								
Method: Low Flow	Cloudy	6.35	0.138	24.92	79.4	0.18	-153.9	1005

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 08 June 2005								
Method: Low Flow	1.5 l	6.32	0.137	24.64	150	0.12	-130.7	0933
Monitor Reading (ppm): NA	2.00	6.33	0.135	24.64	135	0.15	-138.9	0940
Well Casing Diameter & Material	2.5	6.33	0.137	24.65	117	0.17	-146.6	0945
Type: PVC 1 inch	4.0	6.35	0.138	24.92	79.4	0.18	-153.9	0955
Total Well Depth (TD): 10.7								
Static Water Level (WL): 6.1								
One Casing Volume(gal/L): 1								
Start Purge (hrs): 0930								
End Purge (hrs): 1000								
Total Purge Time (min): 30								
Total Vol. Purged (gal/L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8270C SIM - PAHs	N/A	2 - 1L Amber	YES / NO
USEPA 300.0 - Sulfate	4degC	1 - 125mL HDPE	YES / NO
USEPA 415.1 - TOC	4degC	1-2oz jar	YES / NO

NATURAL ATTENUATION PARAMETERS / OBSERVATIONS / NOTES

Field Test Kit Results

Dissolved Oxygen	0.25
Ferrous Iron	.70
Hydrogen Sulfide	
Carbon Dioxide	22
Alkalinity	46
Sulfide	.46

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Larry W Smith

TBD: To Be Determined

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name:
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

See Dupe Page

Sample ID No.: OLFB-1140-MW08-12
Sample Location:
Sampled By:
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date:								
Time:								
Method:								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Method:								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD): 13								
Static Water Level (WL): 6.34								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8270C SIM - PAHs	N/A	2 - 1L Amber	YES / NO
USEPA 300.0 - Sulfate	4degC	1 - 125mL HDPE	YES / NO
USEPA 415.1 - TOC	4degC	1-2oz jar	YES / NO

NATURAL ATTENUATION PARAMETERS / OBSERVATIONS / NOTES

****Field Test Kit Results****

Dissolved Oxygen _____
Ferrous Iron _____
Hydrogen Sulfide _____
Carbon Dioxide _____
Alkalinity _____
Sulfide

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

TBD: To Be Determined

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bronson Site 1140
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-DU01-12
Sample Location:
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date: 8 June 2005								
Time: 0815								
Method: Low Flow		6.11	.355	24.95	7.53	.36	-88.0	0815

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 8 June 2005								
Method: Low Flow	0.5 liter	6.11	0.374	24.81	14.2	0.20	-71.8	0755
Monitor Reading (ppm): NA	1.5	6.12	0.374	24.87	8.38	0.20	-80.7	0800
Well Casing Diameter & Material	2.25	6.12	0.360	24.92	7.72	0.25	-88.2	0805
Type: PVC - 2inch	3.50	6.11	0.355	24.95	7.53	0.36	-88.0	0810
Total Well Depth (TD): 12.9								
Static Water Level (WL): 6.3								
One Casing Volume(gal/L): 0.5								
Start Purge (hrs): 0752								
End Purge (hrs): 0814								
Total Purge Time (min): 22								
Total Vol. Purged (gal/L): 3.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8270C SIM - PAHs	N/A	2 - 1L Amber	YES / NO
USEPA 300.0 - Sulfate	4degC	1 - 125mL HDPE	YES / NO
USEPA 415.1 - TOC	4degC	1-2oz jar	YES / NO

NATURAL ATTENUATION PARAMETERS / OBSERVATIONS / NOTES

Field Test Kit Results

Dissolved Oxygen	.35
Ferrous Iron	1.67
Hydrogen Sulfide	
Carbon Dioxide	28
Alkalinity	42
Sulfide	.13

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Larry W Smith

TBD: To Be Determined

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: OLF Bronson Site 1140
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW09-12
Sample Location:
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	ORP mV	Time
Date: 8 June 2005								
Time: 0850								
Method: Low flow		6.27	.380	25.18	8.57	.72	-111.8	0850

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	ORP	Time
Date: 8 June 2005								
Method: Low Flow	0.3	6.27	0.385	25.10	15.3	0.51	-104.9	0820
Monitor Reading (ppm): NA	1.8	6.27	0.390	25.14	9.92	0.59	-107.1	0825
Well Casing Diameter & Material	2.3	6.27	0.386	25.14	8.42	0.63	-109.0	0830
Type: PVC 2 inch	2.8	6.27	0.382	25.16	8.40	0.69	-111.1	0835
Total Well Depth (TD):	3.8	6.27	0.380	25.18	8.57	0.72	-111.8	0840
Static Water Level (WL):								
One Casing Volume(gal/L): 1								
Start Purge (hrs): 0818								
End Purge (hrs): 0842								
Total Purge Time (min): 24								
Total Vol. Purged (gal/L): 4.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
SW-846 8270C SIM - PAHs	N/A	2 - 1L Amber	YES / NO
USEPA 300.0 - Sulfate	4degC	1 - 125mL HDPE	YES / NO
USEPA 415.1 - TOC	4degC	1-2oz jar	YES / NO

NATURAL ATTENUATION PARAMETERS / OBSERVATIONS / NOTES

Field Test Kit Results

Dissolved Oxygen	.9
Ferrous Iron	.64
Hydrogen Sulfide	
Carbon Dioxide	34
Alkalinity	45
Sulfide	.16

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s): Gary W Smith

TBD: To Be Determined

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME :

SITE NAME: 1140 NW

PROJECT No.:

INSTRUMENT NAME/MODEL: YSI 556 MPS

MANUFACTURER: YSI

SERIAL NUMBER: 03C0391 AB

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
9/7/05		C. Odom			3.91	4.01	N/A	4.0 pH
					10.03	10.04	N/A	pH 10.0
					1.453	1.422	N/A	conductivity

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Branson site 1140 NW
Project No.:

[] Domestic Well Data
[✓] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW03-13
Sample Location:
Sampled By: C. Odar
C.O.C. No.:
Type of Sample:
[✓] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 9/7/05								
Time: 1800								
Method: Grab								

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	~~Salinity~~ ORP	Other ~~Sample time~~
Date: 9/7/05								
Method: low flow	1.5L				45		-121.6	1417
Monitor Reading (ppm):	3.0	6.68	.125	28.2	45	.11	~~[illegible]~~	1422
Well Casing Diameter & Material	4.5	6.67	.120	28.15	40	.06	-138.7	1427
Type:	6.0	6.75	.120	28.14	40	.06	-140.2	1432
Total Well Depth (TD): 12.34	7.5	6.78	.120	28.11	35	.11	-140.4	1437
Static Water Level (WL): 8.25	9.0	6.63	.120	28.10	37	.07	-153.4	1442
One Casing Volume(gal/L):	10.5	6.52	.120	28.06	36	.06	-125.2	1447
Start Purge (hrs): 1412								
End Purge (hrs): 1447								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAHs			Yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : _____

INSTRUMENT NAME/MODEL: **YSI 556 MPS**

SITE NAME: **1140 NW & 1120**

MANUFACTURER: **YSI**

PROJECT No.: _____

SERIAL NUMBER: **04KL6614**

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
6/7/2005		C.ODOM			236.9	239.4	691	redox
					1.224	1.434	1411062	conductivity
					9.99	7.01	4000	pH 7.0
					4.17	4	4090	pH 4.0

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : _____

INSTRUMENT NAME/MODEL: **YSI 556 MPS**

SITE NAME: **1140 NW**

MANUFACTURER: **YSI**

PROJECT No.: _____

SERIAL NUMBER: **04GL3203**

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
9/7/2005		C.ODOM			245	240.7	691	REDOX
					1.494	1.426	411062	CONDUCTIVITY
					7.02	7.00	4000	pH 7.0
					4.06	4.00	4098	pH 4.0
38602		C.ODOM			246	240.1	691	REDOX
					1.419	1.412	411062	CONDUCTIVITY
					7.00	6.99	4000	pH 7.0
					3.97	3.99	4098	pH 4.0

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Bronson site 1140 NW
Project No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW13-12
Sample Location: MW-13
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 06/07/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Time: 0750	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)		
Method: Grab low flow		6.06	0.497	25.25	20.9	1.20	-53.8	0750

PURGE DATA:

Date:06/07/05	Volume	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Method: low flow	1.0L	5.93	0.463	24.82	67.2	1.22	38	0726
Monitor Reading (ppm): NA	2.0L	6.03	0.431	25.07	40.4	2.06	-26.4	0731
Well Casing Diameter & Material	3.0L	6.03	0.480	25.21	19.1	1.35	-42.1	0736
Type: 2.0" PVC	4.0L	6.06	0.499	25.24	20.3	1.27	-50.9	0741
Total Well Depth (TD):	5.0L	6.06	0.497	25.25	20.9	1.20	-53.8	0746
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):0728								
End Purge (hrs): 0748								
Total Purge Time (min): 15								
Total Vol. Purged (L): 5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAHs\SW-846 8270C SIM	none	2- 1000mL Amber	yes
SO_4\ USEPA 300.0	4°C	1-125mL HDPE	yes
TOC \ USEPA 415.1	4°C	2- 40mL vials	yes

NATURAL ATTENUATION PARAMETERS/OBSERVATIONS/ NOTES

Field Test Kit Results

Dissolved Oxygen	1.5
Ferrous Iron	1.41
Hydrogen Sulfide	0.08
Carbon Dioxide	33
Alkalinity	43

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Bronson site 1140 NW
Project No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW02-12
Sample Location: MW-02
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 06/08/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Time: 0930	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)		
Method: Grab low flow		6.01	0.097	25.39	2.60	1.04	10.1	0930

PURGE DATA:

Date: 06/08/05	Volume	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Method: low flow	.45L	6.06	0.108	25.37	3.00	0.98	0.2	0855
Monitor Reading (ppm): NA	1.5L	6.04	0.098	25.43	2.74	1.06	7.2	0900
Well Casing Diameter & Material	2.5L	6.02	0.097	25.39	2.60	1.03	8.2	0907
Type: 2.0" PVC	3.5L	6.01	0.097	25.39	2.60	1.04	10.1	0915
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):0842								
End Purge (hrs): 0925								
Total Purge Time (min): 42								
Total Vol. Purged (L): 7.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAHs\SW-846 8270C SIM	none	2- 1000mL Amber	yes
SO_4\ USEPA 300.0	4°C	1-125mL HDPE	yes
TOC \ USEPA 415.1	4°C	2- 40mL vials	yes

NATURAL ATTENUATION PARAMETERS/OBSERVATIONS/ NOTES

Field Test Kit Results

Dissolved Oxygen	1.5
Ferrous Iron	0.0
Hydrogen Sulfide	0.0
Carbon Dioxide	22
Alkalinity	33

Circle if Applicable:

MS/MSD **Duplicate ID No.:**

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name:
Project No.:

[] Domestic Well Data
[] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

SEE DUP PAGE

Sample ID No.: **OLFB-1140-MW08-12**
Sample Location:
Sampled By:
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date:	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time:	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method:								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:								
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD): **13**								
Static Water Level (WL): **6.34**								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAHs\SW-846 8270C SIM	none	2- 1000mL Amber	yes
SO_4\ USEPA 300.0	4^oC	1-125mL HDPE	yes
TOC \ USEPA 415.1	4^oC	2- 40mL vials	yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Bronson site 1140 NW
Project No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW03-12
Sample Location: MW-03
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 06/08/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Time: 1005	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)		
Method: Grab low flow		6.35	0.138	24.92	79.40	0.18	-153.9	1005

PURGE DATA:

Date: 06/08/05	Volume	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Method: low flow	1.5L	6.32	0.137	24.64	150.00	0.12	-130.7	0933
Monitor Reading (ppm): NA	2.0L	6.33	0.135	24.64	135.00	0.15	-138.9	0940
Well Casing Diameter & Material	2.5L	6.33	0.137	24.65	117.00	0.17	-146.6	0945
Type: 1.0" PVC	4.0L	6.35	0.138	24.92	79.40	0.18	-153.9	0955
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):0930								
End Purge (hrs): 1000								
Total Purge Time (min): 30								
Total Vol. Purged (L): 5.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAHs\SW-846 8270C SIM	none	2- 1000mL Amber	yes
SO_4\ USEPA 300.0	4°C	1-125mL HDPE	yes
TOC \ USEPA 415.1	4°C	2- 40mL vials	yes

NATURAL ATTENUATION PARAMETERS/OBSERVATIONS/ NOTES

Field Test Kit Results

Dissolved Oxygen	0.25
Ferrous Iron	0.70
Hydrogen Sulfide	0.46
Carbon Dioxide	22
Alkalinity	46

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Bronson site 1140 NW
Project No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-DU01-12
Sample Location: MW-08
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 06/08/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Time: 0815	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)		
Method: Grab low flow		6.11	0.355	24.95	7.53	0.36	-88.0	0810

PURGE DATA:

Date: 06/08/05	Volume	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Method: low flow	.5L	6.11	0.374	24.81	14.20	0.20	-71.8	0755
Monitor Reading (ppm): NA	1.5L	6.12	0.374	24.87	8.38	0.20	-80.7	0800
Well Casing Diameter & Material	2.25L	6.12	0.360	24.92	7.72	0.25	-88.2	0805
Type: 2.0" PVC	3.5L	6.11	0.355	24.95	7.53	0.36	-88.0	0810
Total Well Depth (TD): 12.9								
Static Water Level (WL): 6.3								
One Casing Volume(gal/L): 0.5								
Start Purge (hrs):0752								
End Purge (hrs): 0814								
Total Purge Time (min): 22								
Total Vol. Purged (L): 3.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAHs\SW-846 8270C SIM	none	2- 1000mL Amber	yes
SO_4\ USEPA 300.0	4°C	1-125mL HDPE	yes
TOC \ USEPA 415.1	4°C	2- 40mL vials	yes

NATURAL ATTENUATION PARAMETERS/OBSERVATIONS/ NOTES

Field Test Kit Results

Dissolved Oxygen	0.35
Ferrous Iron	1.67
Hydrogen Sulfide	0.13
Carbon Dioxide	28
Alkalinity	42

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Bronson site 1140 NW
Project No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW09-12
Sample Location: MW-09
Sampled By: LWS/CO
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 06/08/05	Color	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Time: 0850	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)		
Method: Grab low flow		6.27	0.380	25.18	8.57	0.72	-111.8	0850

PURGE DATA:

Date: 06/08/05	Volume	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Method: low flow	0.3	6.27	0.395	25.10	15.30	0.51	-104.9	0820
Monitor Reading (ppm): NA	1.8	6.27	0.390	25.14	9.92	0.59	-107.1	0825
Well Casing Diameter & Material	2.3	6.27	0.386	25.14	8.42	0.63	-109	0830
Type: 2.0" PVC	2.8	6.27	0.382	25.16	8.40	0.69	-111.1	0835
Total Well Depth (TD):	3.3	6.27	0.380	25.18	8.57	0.72	-111.8	0840
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):0818								
End Purge (hrs): 0842								
Total Purge Time (min): 24								
Total Vol. Purged (L): 4.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAHs\SW-846 8270C SIM	none	2- 1000mL Amber	yes
SO_4\ USEPA 300.0	4° C	1-125mL HDPE	yes
TOC \ USEPA 415.1	4° C	2- 40mL vials	yes

NATURAL ATTENUATION PARAMETERS/OBSERVATIONS/ NOTES

Field Test Kit Results

Dissolved Oxygen	0.9
Ferrous Iron	0.64
Hydrogen Sulfide	0.16
Carbon Dioxide	34
Alkalinity	45

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : _____

SITE NAME: 1140 NW

PROJECT No.: _____

INSTRUMENT NAME/MODEL: YSI 556 MPS

MANUFACTURER: YSI

SERIAL NUMBER: 03CO391 AB

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
9/7/2005		C.ODOM			3.91	4.01	N/A	4.0 pH
					10.03	10.04	N/A	10.0 pH
					1.453	1.422	N/A	conductivity

Tetra Tech NUS, Inc.

EQUIPMENT CALIBRATION LOG

PROJECT NAME : _____

SITE NAME: 1140 NW

PROJECT No.: _____

INSTRUMENT NAME/MODEL: LaMotte 2020

MANUFACTURER: LaMotte

SERIAL NUMBER: 4983-1704

Date of Calibration	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
			Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
9/7/2005		c. odom			8.9	10		10
					1			

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: OLF Bronson site 1140 NW
Project No.:

[] Domestic Well Data
[x] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: OLFB-1140-MW03-13
Sample Location: MW-03
Sampled By:
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	ORP	Time
Date: 09/07/05								
Time: 1500								
Method: Grab		6.52	0.120	28.06	36	0.06	-125.2	1500

PURGE DATA:

	Volume	pH	S.C.	Temp.	Turbidity	DO	ORP	Time
Date:								
Method:	1.5				45			1417
Monitor Reading (ppm):	3	6.68	0.125	28.20	45	0.11	-121.6	1422
Well Casing Diameter & Material	4.5	6.67	0.120	28.15	40	0.06	-138.7	1427
Type:	6	6.75	0.120	28.14	40	0.06	-140.2	1432
Total Well Depth (TD):	7.5	6.78	0.120	28.11	35	0.11	-140.4	1437
Static Water Level (WL):	9	6.63	0.120	28.10	37	0.07	-153.4	1442
One Casing Volume(gal/L):	10.5	6.52	0.120	28.06	36	0.06	-125.2	1447
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
PAHs	none	2- 1000mL	yes

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

ATTACHMENT B

GROUNDWATER ANALYTICAL REPORT

41785

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

CHAIN OF CUSTODY

Company Name: TetraTech NUS
Billing address:
Address: 1401 Oven Park Drive Tallahassee, FL, 32308
P.O.# (if required):
Results Sent to: (Client Contact): Gerry Walker
Email address:
Contact Phone #: 850-385-9899 Fax#:
Project (Site) Name: OLF3 Bronson Pensacola, FL Site 1140
Project Number: 1126N.5967 CTO 0302
Preservation Code: (See below)

For Laboratory Use Only:
QC Level: 1 2 3 4 CLP-Like
Custody Seal(s): Y N Tape
AAL LIMS System ID:
Receiver's Initials/Temp: MB 20c
AAL Work Order # 8261

Sampler(s): (signature)
Sampler(s): (printed)

Analysis Requested

Line No.	Sample ID #	Sample Date / Time	Composite	Grab	Matrix (See below)	Sample Location	No. of Containers	PAH 8270C SIM	TOC USEPA 415.1	Sulfate USEPA 300.0	Field Comments:	AAL Lab ID: 8261
1	OLFB-1140-MW13-12	08/06/2005 0750		✓	GW		4	2	1	1		-001
2	OLFB-1140-MW08-12	0815		✓	GW		4	2	1	1		-002
3	OLFB-1140-DU01-12	0815		✓	GW		4	2	1	1		-003
4	OLFB-1140-MW09-12	0850		✓	GW		4	2	1	1		-004
5	OLFB-1140-MW02-12	0930		✓	GW		4	2	1	1		-005
6	OLFB-1140-MW-03-12	1005		✓	GW		4	2	1	1		-006
7												-
8												-
9												-
10												-

1) Relinquished By: Gary W Smith — Date / Time: 08 June 05 1400
2) Received By: Michael Brown — Date / Time: 6-7-05 0945
3) Relinquished By: — Date / Time:
4) Received By: — Date / Time:

Delivered by: (Circle One) Fed Ex / UPS / DHL / AAL Pickup / Hand / Other

Turnaround Time Requested:

Matrix Guide: (W=Water) (DW=Drinking Water) (GW=Groundwater) (SW=Surface Water) (L=Liquid) (O=Oil) (S=Soil) (SD=Solid) (SL=Sludge) (A=Air) (C=Air Cartridge)

Preservation Codes: 1=HCL / 2=HNO_3 / 3=H_2SO_4 / 4=NaOH+$NaAsO_2$ / 5=NaOH+ZnAc / 6=$Na_2S_2O_3$ / 7=$NaHSO_4$ / 8=MeOH

41168

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

CHAIN OF CUSTODY

Company Name: Tetra-Tech NVS

Billing address:

P.O.# (if required):

Address:

Results Sent to: (Client Contact): Gerry Walker

Email address:

Contact Phone #: 850 385 9899 Fax#:

Project (Site) Name: OLF Bronson Pensacola, FL site 1140

Project Number: CTO 0302 1126N5967

Preservation Code: (See below)

For Laboratory Use Only: QC Level: 1 2 3 4 CLP-Like

Custody Seal(s): 2 Y N Tape

AAL LIMS System ID: 13275

Receiver's Initials/Temp: Bm 22

AAL Work Order # 8868

Sampler(s): (signature): Curtis Odom

Sampler(s): (printed): Curtis Odom

Analysis Requested

Field Comments:

Line No.	Sample ID #	Sample Date / Time	Composite	Grab	Matrix (See below)	Sample Location	No. of Containers	PAH 8270C SIM										AAL Lab ID:
1	OLFB-1140-MW03	9/7/05 1500		✓	GW	MW-03	3	3										8868-001
2																		–
3																		–
4																		–
5																		–
6																		–
7																		–
8																		–
9																		–
10																		–

1) Relinquished By: Curtis Odom — Date / Time: 9/7/05 1700

2) Received By: [signature] — Date / Time: 9/8/05 0950

3) Relinquished By: — Date / Time:

4) Received By: — Date / Time:

Delivered by: (Circle One) Fed Ex / UPS / DHL / AAL Pickup / Hand / Other

Turnaround Time Requested:

Matrix Guide: (W=Water) (DW=Drinking Water) (GW=Groundwater) (SW=Surface Water) (L=Liquid) (O=Oil) (S=Soil) (SD=Solid) (SL=Sludge) (A=Air) (C=Air Cartridge)

Preservation Codes: 1=HCL / 2=HNO_3 / 3=H_2SO_4 / 4=NaOH+$NaAsO_2$ / 5=NaOH+ZnAc / 6=$Na_2S_2O_3$ / 7=$NaHSO_4$ / 8=MeOH

HOLDTIME

SDG 8261

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SO4	MG/L	OLFB-1140-MW08-12	8261-002	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-MW03-12	8261-006	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-DU01-12	8261-003	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-MW09-12	8261-004	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-MW13-12	8261-001	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-MW02-12	8261-005	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
TOC	MG/L	OLFB-1140-DU01-12	8261-003	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW02-12	8261-005	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW03-12	8261-006	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW08-12	8261-002	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW09-12	8261-004	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW13-12	8261-001	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
SIM	%	OLFB-1140-MW13-12	8261-001	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	%	OLFB-1140-MW02-12	8261-005	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	%	OLFB-1140-DU01-12	8261-003	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	%	OLFB-1140-MW03-12	8261-006	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	%	OLFB-1140-MW08-12	8261-002	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	%	OLFB-1140-MW09-12	8261-004	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-DU01-12	8261-003	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW02-12	8261-005	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW03-12	8261-006	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW08-12	8261-002	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW13-12	8261-001	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW09-12	8261-004	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9

PROJ_NO: 5967

SDG: 8261 MEDIA: WATER DATA FRACTION: PAH

nsample	OLFB-1140-DU01-12
samp_date	6/8/2005
lab_id	8261-003
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	OLFB-1140-MW08-12

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.43		
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.74		
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.2	U	
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

nsample	OLFB-1140-MW02-12
samp_date	6/8/2005
lab_id	8261-005
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.2	U	
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.2	U	
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

nsample	OLFB-1140-MW03-12
samp_date	6/8/2005
lab_id	8261-006
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
ACENAPHTHENE	1.5		
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.11	J	P
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	1.0		
PHENANTHRENE	0.93		
PYRENE	0.2	U	

PROJ_NO: 5967

SDG: 8261 MEDIA: WATER DATA FRACTION: PAH

nsample	OLFB-1140-MW03-12 DIL1
samp_date	6/8/2005
lab_id	8261-006 DIL1
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	3.9		
FLUORENE	2.6		

nsample	OLFB-1140-MW03-12 DIL2
samp_date	6/8/2005
lab_id	8261-006 DIL2
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	21		

nsample	OLFB-1140-MW08-12
samp_date	6/8/2005
lab_id	8261-002
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.2	U	
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.46		
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	0.81		
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.2	U	
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

PROJ_NO: 5967

SDG: 8261 MEDIA: WATER DATA FRACTION: PAH

nsample	OLFB-1140-MW09-12
samp_date	6/8/2005
lab_id	8261-004
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	0.69		
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.72		
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	1.1		
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.27		
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

nsample	OLFB-1140-MW13-12
samp_date	6/8/2005
lab_id	8261-001
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
2-METHYLNAPHTHALENE	0.2	U	
ACENAPHTHENE	0.78		
ACENAPHTHYLENE	0.2	U	
ANTHRACENE	0.2	U	
BENZO(A)ANTHRACENE	0.2	U	
BENZO(A)PYRENE	0.2	U	
BENZO(B)FLUORANTHENE	0.2	U	
BENZO(G,H,I)PERYLENE	0.2	U	
BENZO(K)FLUORANTHENE	0.2	U	
CHRYSENE	0.2	U	
DIBENZO(A,H)ANTHRACENE	0.2	U	
FLUORANTHENE	0.2	U	
FLUORENE	1.1		
INDENO(1,2,3-CD)PYRENE	0.2	U	
NAPHTHALENE	0.21		
PHENANTHRENE	0.2	U	
PYRENE	0.2	U	

nsample	OLFB-1140-MW13-12 DIL
samp_date	6/8/2005
lab_id	8261-001 DIL
qc_type	NM
units	UG/L
Pct_Solids	
DUP_OF:	

Parameter	Result	Val Qual	Qual Code
1-METHYLNAPHTHALENE	3.9		

1D

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-DU01-12

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA Case No.: 8261

SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-003

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B061705\B48638

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture: _____ Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 06/17/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	0.20	U
91-57-6	2-Methylnaphthalene	0.20	U
83-32-9	Acenaphthene	0.43	
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.20	U
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.74	
86-73-7	Fluorene	0.20	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	0.20	U
85-01-8	Phenanthrene	0.20	U
129-00-0	Pyrene		

1C

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW02-12

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA Case No.: 8261

SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-005

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B061705\B48640

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture: _____ Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 06/17/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	0.20	U
91-57-6	2-Methylnaphthalene	0.20	U
83-32-9	Acenaphthene	0.20	U
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.20	U
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a.h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.20	U
86-73-7	Fluorene	0.20	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	0.20	U
85-01-8	Phenanthrene	0.20	U
129-00-0	Pyrene	0.20	U

1D

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW03-12

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA Case No.: 8261

SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-006

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B061705\B48641

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture: _____ Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 06/17/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	22	L
91-57-6	2-Methylnaphthalene	3.8	L
83-32-9	Acenaphthene	1.5	
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.11	I
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.20	U
86-73-7	Fluorene	2.3	L
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	1.0	
85-01-8	Phenanthrene	0.93	
129-00-0	Pyrene	0.20	U

1D

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW03-12 DIL1

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA Case No.: 8261

SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-006 DIL1

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B062005\B48646

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture: _____ Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 06/20/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 5.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
90-12-0	1-Methylnaphthalene	22	L
91-57-6	2-Methylnaphthalene	3.9	
83-32-9	Acenaphthene	1.8	
208-96-8	Acenaphthylene	1.0	U
120-12-7	Anthracene	1.0	U
56-55-3	Benzo(a)anthracene	1.0	U
50-32-8	Benzo(a)pyrene	1.0	U
205-99-2	Benzo(b)fluoranthene	1.0	U
191-24-2	Benzo(g,h,i)perylene	1.0	U
207-08-9	Benzo(k)fluoranthene	1.0	U
218-01-9	Chrysene	1.0	U
53-70-3	Dibenz(a,h)Anthracene	1.0	U
206-44-0	Fluoranthene	1.0	U
86-73-7	Fluorene	2.6	
193-39-5	Indeno(1,2,3-c,d)Pyrene	1.0	U
91-20-3	Naphthalene	1.2	
85-01-8	Phenanthrene	0.98	I
129-00-0	Pyrene	1.0	U

1D

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW03-12 DIL2

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA Case No.: 8261

SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-006 DIL2

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B062005\B48647

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture: _____ Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 06/20/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 20.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	21	
91-57-6	2-Methylnaphthalene	3.5	I
83-32-9	Acenaphthene	4.0	U
208-96-8	Acenaphthylene	4.0	U
120-12-7	Anthracene	4.0	U
56-55-3	Benzo(a)anthracene	4.0	U
50-32-8	Benzo(a)pyrene	4.0	U
205-99-2	Benzo(b)fluoranthene	4.0	U
191-24-2	Benzo(g,h,i)perylene	4.0	U
207-08-9	Benzo(k)fluoranthene	4.0	U
218-01-9	Chrysene	4.0	U
53-70-3	Dibenz(a,h)Anthracene	4.0	U
206-44-0	Fluoranthene	2.2	I
86-73-7	Fluorene	4.0	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	1.1	I
91-20-3	Naphthalene	0.88	I
85-01-8	Phenanthrene	4.0	U
129-00-0	Pyrene		

1C

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW08-12

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA Case No.: 8261

SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-002

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B061705\B48637

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture: _____ Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 06/17/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	0.20	U
91-57-6	2-Methylnaphthalene	0.20	U
83-32-9	Acenaphthene	0.46	
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.20	U
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.81	
86-73-7	Fluorene	0.20	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	0.20	U
85-01-8	Phenanthrene	0.20	U
129-00-0	Pyrene		

1D

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW09-12

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA

Case No.: 8261

SAS No.

SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-004

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B061705\B48639

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture:

Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (μ L)

Date Analyzed: 06/17/05

Injection Volume: 2.0 (μ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N

pH: N/A

Extraction : (Type) SW3520C

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	0.69	
91-57-6	2-Methylnaphthalene	0.20	U
83-32-9	Acenaphthene	0.72	
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.20	U
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.20	U
86-73-7	Fluorene	1.1	
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	0.27	
85-01-8	Phenanthrene	0.20	U
129-00-0	Pyrene	0.20	U

1C

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW13-12

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA Case No.: 8261

SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-001

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B061705\B48636

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture: _____ Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 06/17/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	4.4	L
91-57-6	2-Methylnaphthalene	0.20	U
83-32-9	Acenaphthene	0.78	
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.20	U
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	1.1	
86-73-7	Fluorene	0.20	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.21	
91-20-3	Naphthalene	0.20	U
85-01-8	Phenanthrene	0.20	U
129-00-0	Pyrene		

1C

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW13-12 DIL

Lab Name : ACCURA ANALYTICAL LAB

Contract: N62467-94-D-0888

Lab Code : ACCURA

Case No.: 8261

SAS No. _____

SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 8261-001 DIL

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B061705\B48643

Level : (low/med) LOW

Date Received: 06/09/05

% Moisture: _____ Decanted: (Y/N) N

Date Extracted: 06/13/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 06/17/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 5.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	3.9	
91-57-6	2-Methylnaphthalene	1.0	U
83-32-9	Acenaphthene	0.72	I
208-96-8	Acenaphthylene	1.0	U
120-12-7	Anthracene	1.0	U
56-55-3	Benzo(a)anthracene	1.0	U
50-32-8	Benzo(a)pyrene	1.0	U
205-99-2	Benzo(b)fluoranthene	1.0	U
191-24-2	Benzo(g,h,i)perylene	1.0	U
207-08-9	Benzo(k)fluoranthene	1.0	U
218-01-9	Chrysene	1.0	U
53-70-3	Dibenz(a,h)Anthracene	1.0	U
206-44-0	Fluoranthene	1.0	U
86-73-7	Fluorene	0.93	I
193-39-5	Indeno(1,2,3-c,d)Pyrene	1.0	U
91-20-3	Naphthalene	1.0	U
85-01-8	Phenanthrene	1.0	U
129-00-0	Pyrene	1.0	U

NAS PENSACOLA
WATER DATA
8261

FRACTION	CHEMICAL	OLFB-1140-MW08-12	UNITS	OLFB-1140-DU01-12	RPD
PAH	ACENAPHTHENE	0.46	UG/L	0.43	6.74
PAH	FLUORENE	0.81	UG/L	0.74	9.03

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

HOLDTIME

SDG 8261

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SO4	MG/L	OLFB-1140-MW08-12	8261-002	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-MW03-12	8261-006	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-DU01-12	8261-003	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-MW09-12	8261-004	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-MW13-12	8261-001	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
SO4	MG/L	OLFB-1140-MW02-12	8261-005	NM	6/8/2005	6/23/2005	6/23/2005	15	0	15
TOC	MG/L	OLFB-1140-DU01-12	8261-003	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW02-12	8261-005	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW03-12	8261-006	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW08-12	8261-002	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW09-12	8261-004	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
TOC	MG/L	OLFB-1140-MW13-12	8261-001	NM	6/8/2005	6/21/2005	6/21/2005	13	0	13
SIM	%	OLFB-1140-MW13-12	8261-001	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	%	OLFB-1140-MW02-12	8261-005	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	%	OLFB-1140-DU01-12	8261-003	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
SIM	%	OLFB-1140-MW03-12	8261-006	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	%	OLFB-1140-MW08-12	8261-002	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	%	OLFB-1140-MW09-12	8261-004	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-DU01-12	8261-003	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW02-12	8261-005	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW03-12	8261-006	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW08-12	8261-002	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW13-12	8261-001	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9
SIM	UG/L	OLFB-1140-MW09-12	8261-004	NM	6/8/2005	6/13/2005	6/17/2005	5	4	9

PROJ_NO: 5967

SDG: 8261 MEDIA: WATER DATA FRACTION: MISC

nsample	OLFB-1140-DU01-12
samp_date	6/8/2005
lab_id	8261-003
qc_type	NM
Pct_Solids	
DUP_OF:	OLFB-1140-MW08-12

Parameter	units	Result	Val Qual	Qual Code
SULFATE	MG/L	20		
TOTAL ORGANIC CARBON	MG/L	7.48		

nsample	OLFB-1140-MW02-12
samp_date	6/8/2005
lab_id	8261-005
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
SULFATE	MG/L	7.6		
TOTAL ORGANIC CARBON	MG/L	1.41	J	P

nsample	OLFB-1140-MW03-12
samp_date	6/8/2005
lab_id	8261-006
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
SULFATE	MG/L	12		
TOTAL ORGANIC CARBON	MG/L	4.53		

PROJ_NO: 5967

SDG: 8261 MEDIA: WATER DATA FRACTION: MISC

nsample	OLFB-1140-MW08-12
samp_date	6/8/2005
lab_id	8261-002
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
SULFATE	MG/L	20		
TOTAL ORGANIC CARBON	MG/L	5.41		

nsample	OLFB-1140-MW09-12
samp_date	6/8/2005
lab_id	8261-004
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
SULFATE	MG/L	20		
TOTAL ORGANIC CARBON	MG/L	5.56		

nsample	OLFB-1140-MW13-12
samp_date	6/8/2005
lab_id	8261-001
qc_type	NM
Pct_Solids	
DUP_OF:	

Parameter	units	Result	Val Qual	Qual Code
SULFATE	MG/L	32		
TOTAL ORGANIC CARBON	MG/L	4.62		

Certificate of Analytical Results 8261

Tetra Tech NUS -Tallahassee, Tallahassee, FL

OLF Bronson Site 1140 / CTO 302

Sample Id: **OLFB-1140-MW13-12** Matrix: **WATER** % Moisture:
Lab Sample Id: **8261-001** Date Collected: **Jun-08-05 07:50** Date Received: **Jun-09-05 09:45**
Sample Depth:

Analytical Method: Sulfate by SW9056 Prep Method:

Date Analyzed: Jun-23-05 12:47 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27000

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Sulfate	14808-79-8	32	0.10	0.062	mg/L		1

Analytical Method: Total Organic Carbon by SW9060 Prep Method:

Date Analyzed: Jun-21-05 14:15 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27033

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Total Organic Carbon	7440-44-0	4.62	2.00	0.810	mg/L		1

Sample Id: **OLFB-1140-MW08-12** Matrix: **WATER** % Moisture:
Lab Sample Id: **8261-002** Date Collected: **Jun-08-05 08:15** Date Received: **Jun-09-05 09:45**
Sample Depth:

Analytical Method: Sulfate by SW9056 Prep Method:

Date Analyzed: Jun-23-05 13:04 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27000

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Sulfate	14808-79-8	20	0.10	0.062	mg/L		1

Analytical Method: Total Organic Carbon by SW9060 Prep Method:

Date Analyzed: Jun-21-05 14:30 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27033

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Total Organic Carbon	7440-44-0	5.41	2.00	0.810	mg/L		1

Certificate of Analytical Results 8261

Tetra Tech NUS -Tallahassee, Tallahassee, FL

OLF Bronson Site 1140 / CTO 302

Sample Id: **OLFB-1140-DU01-12** Matrix: **WATER** % Moisture:
Lab Sample Id: **8261-003** Date Collected: **Jun-08-05 08:15** Date Received: **Jun-09-05 09:45**
Sample Depth:

Analytical Method: Sulfate by SW9056 Prep Method:
Date Analyzed: Jun-23-05 13:20 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27000

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Sulfate	14808-79-8	20	0.10	0.062	mg/L		1

Analytical Method: Total Organic Carbon by SW9060 Prep Method:
Date Analyzed: Jun-21-05 14:45 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27033

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Total Organic Carbon	7440-44-0	7.48	2.00	0.810	mg/L		1

Sample Id: **OLFB-1140-MW09-12** Matrix: **WATER** % Moisture:
Lab Sample Id: **8261-004** Date Collected: **Jun-08-05 08:50** Date Received: **Jun-09-05 09:45**
Sample Depth:

Analytical Method: Sulfate by SW9056 Prep Method:
Date Analyzed: Jun-23-05 13:37 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27000

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Sulfate	14808-79-8	20	0.10	0.062	mg/L		1

Analytical Method: Total Organic Carbon by SW9060 Prep Method:
Date Analyzed: Jun-21-05 15:00 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27033

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Total Organic Carbon	7440-44-0	5.56	2.00	0.810	mg/L		1

Certificate of Analytical Results 8261

Tetra Tech NUS -Tallahassee, Tallahassee, FL

OLF Bronson Site 1140 / CTO 302

Sample Id: **OLFB-1140-MW02-12** Matrix: **WATER** % Moisture:
Lab Sample Id: **8261-005** Date Collected: **Jun-08-05 09:30** Date Received: **Jun-09-05 09:45**
Sample Depth:

Analytical Method: Sulfate by SW9056 Prep Method:
Date Analyzed: Jun-23-05 13:53 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27000

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Sulfate	14808-79-8	7.6	0.10	0.062	mg/L		1

Analytical Method: Total Organic Carbon by SW9060 Prep Method:
Date Analyzed: Jun-21-05 15:15 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27033

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Total Organic Carbon	7440-44-0	1.41	2.00	0.810	mg/L	I	1

Sample Id: **OLFB-1140-MW03-12** Matrix: **WATER** % Moisture:
Lab Sample Id: **8261-006** Date Collected: **Jun-08-05 10:05** Date Received: **Jun-09-05 09:45**
Sample Depth:

Analytical Method: Sulfate by SW9056 Prep Method:
Date Analyzed: Jun-23-05 14:09 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27000

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Sulfate	14808-79-8	12	0.10	0.062	mg/L		1

Analytical Method: Total Organic Carbon by SW9060 Prep Method:
Date Analyzed: Jun-21-05 15:30 Analyst: LJB01 Date Prep: Tech: LJB01
Seq Number: 27033

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Total Organic Carbon	7440-44-0	4.53	2.00	0.810	mg/L		1

NAS PENSACOLA
WATER DATA
8261

FRACTION	CHEMICAL	OLFB-1140-MW08-12	UNITS	OLFB-1140-DU01-12	RPD		D
MISC	SULFATE	20	MG/L	20	0.00		0.00
MISC	TOTAL ORGANIC CARBON	5.41	MG/L	7.48	32.12	OK	2.07

Current RPD Quality Control Limit: 30 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

1C

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW03-13

Lab Name : ACCURA ANALYTICAL LAB Contract: N5967

Lab Code : ACCURA Case No.: 8868 SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER Lab Sample Id: 8868-001

Sample wt/vol: 1000 (g/ml): ML Lab File ID: 1B091905\B49257

Level : (low/med) LOW Date Received: 09/08/05

% Moisture: _____ Decanted: (Y/N) N Date Extracted: 09/12/05

Concentrated Extract Volume: 1000 (µ L) Date Analyzed: 09/19/05

Injection Volume: 2.0 (µ L) Dilution Factor: 1.0

GPC Cleanup (Y/N): N pH: N/A Extraction : (Type) SW3520C

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	25	L
91-57-6	2-Methylnaphthalene	12	L
83-32-9	Acenaphthene	1.6	
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.15	I
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.20	U
86-73-7	Fluorene	2.6	L
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	1.9	L
85-01-8	Phenanthrene	1.4	
129-00-0	Pyrene	0.20	U

1D
SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.
OLFB-1140-MW03-13 DL1

Lab Name : ACCURA ANALYTICAL LAB
Contract: N5967
Lab Code : ACCURA
Case No.: 8868
SAS No.
SDG No.: N/A
Matrix : (soil/water) WATER
Lab Sample Id: 8868-001 DL1
Sample wt/vol: 1 (g/ml): ML
Lab File ID: 1B092005\B49262
Level : (low/med) LOW
Date Received: 09/08/05
% Moisture:
Decanted: (Y/N) N
Date Extracted: 09/20/05
Concentrated Extract Volume: 1000 (µ L)
Date Analyzed: 09/20/05
Injection Volume: 2.0 (µ L)
Dilution Factor: 5.0
GPC Cleanup (Y/N): N
pH: N/A
Extraction : (Type) SW8270C_SIM

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	27	L
91-57-6	2-Methylnaphthalene	13	L
83-32-9	Acenaphthene	2.2	
208-96-8	Acenaphthylene	1.0	U
120-12-7	Anthracene	1.0	U
56-55-3	Benzo(a)anthracene	1.0	U
50-32-8	Benzo(a)pyrene	1.0	U
205-99-2	Benzo(b)fluoranthene	1.0	U
191-24-2	Benzo(g,h,i)perylene	1.0	U
207-08-9	Benzo(k)fluoranthene	1.0	U
218-01-9	Chrysene	1.0	U
53-70-3	Dibenz(a,h)Anthracene	1.0	U
206-44-0	Fluoranthene	1.0	U
86-73-7	Fluorene	3.3	
193-39-5	Indeno(1,2,3-c,d)Pyrene	1.0	U
91-20-3	Naphthalene	2.0	
85-01-8	Phenanthrene	1.4	
129-00-0	Pyrene	1.0	U

1D

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

OLFB-1140-MW03-13 DL2

Lab Name : ACCURA ANALYTICAL LAB Contract: N5967

Lab Code : ACCURA Case No.: 8868 SAS No. _____ SDG No.: N/A

Matrix : (soil/water) WATER Lab Sample Id: 8868-001 DL2

Sample wt/vol: 1 (g/ml): ML Lab File ID: 1B092005\B49263

Level : (low/med) LOW Date Received: 09/08/05

% Moisture: _____ Decanted: (Y/N) N Date Extracted: 09/20/05

Concentrated Extract Volume: 1000 (µL) Date Analyzed: 09/20/05

Injection Volume: 2.0 (µL) Dilution Factor: 50.0

GPC Cleanup (Y/N): N pH: N/A Extraction : (Type) SW8270C_SIM

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	27	
91-57-6	2-Methylnaphthalene	10	
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
50-32-8	Benzo(a)pyrene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenz(a,h)Anthracene	10	U
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	10	U
91-20-3	Naphthalene	10	U
85-01-8	Phenanthrene	10	U
129-00-0	Pyrene	10	U

1D

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

27092 BLK

Lab Name : ACCURA ANALYTICAL LAB

Contract: N5967

Lab Code : ACCURA

Case No.: 8868

SAS No.

SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 27092 BLK

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B091905\B49255

Level : (low/med) LOW

Date Received:

% Moisture: 0 Decanted: (Y/N) N

Date Extracted: 09/12/05

Concentrated Extract Volume: 1000 (µ L)

Date Analyzed: 09/19/05

Injection Volume: 2.0 (µ L)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	0.20	U
91-57-6	2-Methylnaphthalene	0.20	U
83-32-9	Acenaphthene	0.20	U
208-96-8	Acenaphthylene	0.20	U
120-12-7	Anthracene	0.20	U
56-55-3	Benzo(a)anthracene	0.20	U
50-32-8	Benzo(a)pyrene	0.20	U
205-99-2	Benzo(b)fluoranthene	0.20	U
191-24-2	Benzo(g,h,i)perylene	0.20	U
207-08-9	Benzo(k)fluoranthene	0.20	U
218-01-9	Chrysene	0.20	U
53-70-3	Dibenz(a,h)Anthracene	0.20	U
206-44-0	Fluoranthene	0.20	U
86-73-7	Fluorene	0.20	U
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.20	U
91-20-3	Naphthalene	0.20	U
85-01-8	Phenanthrene	0.20	U
129-00-0	Pyrene	0.20	U

1C

SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.

27092 BKS

Lab Name : ACCURA ANALYTICAL LAB

Contract: N5967

Lab Code : ACCURA

Case No.: 8868

SAS No.

SDG No.: N/A

Matrix : (soil/water) WATER

Lab Sample Id: 27092 BKS

Sample wt/vol: 1000 (g/ml): ML

Lab File ID: 1B091905\B49256

Level : (low/med) LOW

Date Received:

% Moisture: 0 Decanted: (Y/N) N

Date Extracted: 09/12/05

Concentrated Extract Volume: 1000 (µL)

Date Analyzed: 09/19/05

Injection Volume: 2.0 (µL)

Dilution Factor: 1.0

GPC Cleanup (Y/N): N pH: N/A

Extraction : (Type) SW3520C

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
90-12-0	1-Methylnaphthalene	0.53	
91-57-6	2-Methylnaphthalene	0.59	
83-32-9	Acenaphthene	0.60	
208-96-8	Acenaphthylene	0.58	
120-12-7	Anthracene	0.74	
56-55-3	Benzo(a)anthracene	0.79	
50-32-8	Benzo(a)pyrene	0.88	
205-99-2	Benzo(b)fluoranthene	0.78	
191-24-2	Benzo(g,h,i)perylene	0.70	
207-08-9	Benzo(k)fluoranthene	0.82	
218-01-9	Chrysene	0.73	
53-70-3	Dibenz(a,h)Anthracene	0.74	
206-44-0	Fluoranthene	0.81	
86-73-7	Fluorene	0.67	
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.73	
91-20-3	Naphthalene	0.52	
85-01-8	Phenanthrene	0.69	
129-00-0	Pyrene	0.70	

1D
SEMIVOLATILE ORGANICS ANALYSES DATA SHEET

EPA SAMPLE NO.
OLFB-1140-MW03-13 MS

Lab Name : ACCURA ANALYTICAL LAB
Contract: N5967
Lab Code : ACCURA Case No.: 8868
SAS No. _____ SDG No.: N/A
Matrix : (soil/water) WATER
Lab Sample Id: 8868-001 MS
Sample wt/vol: 500 (g/ml): ML
Lab File ID: 1B091905\B49258
Level : (low/med) LOW
Date Received: 09/08/05
% Moisture: _____ Decanted: (Y/N) N
Date Extracted: 09/12/05
Concentrated Extract Volume: 500 (µ L)
Date Analyzed: 09/19/05
Injection Volume: 2.0 (µ L)
Dilution Factor: 1.0
GPC Cleanup (Y/N): N pH: N/A
Extraction : (Type) SW3520C

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND		Q
90-12-0	1-Methylnaphthalene	34	L
91-57-6	2-Methylnaphthalene	16	L
83-32-9	Acenaphthene	2.5	L
208-96-8	Acenaphthylene	0.59	
120-12-7	Anthracene	0.99	
56-55-3	Benzo(a)anthracene	0.54	
50-32-8	Benzo(a)pyrene	0.35	
205-99-2	Benzo(b)fluoranthene	0.44	
191-24-2	Benzo(g,h,i)perylene	0.26	
207-08-9	Benzo(k)fluoranthene	0.35	
218-01-9	Chrysene	0.47	
53-70-3	Dibenz(a,h)Anthracene	0.37	
206-44-0	Fluoranthene	0.73	
86-73-7	Fluorene	3.9	L
193-39-5	Indeno(1,2,3-c,d)Pyrene	0.35	
91-20-3	Naphthalene	2.9	L
85-01-8	Phenanthrene	2.6	L
129-00-0	Pyrene	0.59	