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NAS CECIL FIELD, FL
5090.3a

SUPPLEMENTAL SITE ASSESSMENT LETTER REPORT FOR BUILDING 199 NAS CECIL
FIELD FL
2/28/2007
ESA ENVIRONMENTAL SPECIALISTS INC



CONSTRUCTION
ENVIRONMENTAL
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February 28, 2007

Contract: N62467-03-G-0116

Ms. Debra Evans-Ripley
Contracting Officer
Naval Facilities Engineering Command
Southern Division
2155 Eagle Drive
North Charleston, SC 29406

Subject: Supplemental Site Assessment Letter Report
Building 199
Naval Air Station Cecil Field
Jacksonville, Florida

Dear Ms. Debra Evans-Ripley:

ESA Environmental Specialists (ESA) is please to submit this Supplemental Assessment Letter Report for the referenced Contract for the subject site. This report has been prepared for the United States Navy Southern Division, Naval Facilities Southern Division, Naval Facilities Engineering Command (NAVFAC EFD SOUTH) Contract Number N62467-03-G-0116. This report provides the result of the supplemental assessment activities and offers a limited review of proper site investigation results to aid in evaluating current site conditions and recommending future actions at the site.

SUPPLEMENTAL ASSESSMENT OBJECTIVES

The objective of the supplemental assessment at Building 199 is to evaluate the site's current groundwater conditions. The assessment data will be used to recommend appropriate future actions at the site.

HISTORICAL DATA FOR MONITORING WELL INSTALLATION

In February 2005, well borings were advanced using direct-push technology to a total depth of 13 feet (ft) below grade. The two wells were each constructed with 10 ft of 0.010-inch machine-slot well screen and completed with flush mounted concrete pads. Monitoring well CEF-199-07SR was a replacement for CEF-199-07S, which was destroyed, and CEF-199-11S was installed as a new down-gradient well due to the shifting groundwater flow patterns. The top-of-casing (TOC) elevations of these two new wells were surveyed in March 2005.

GROUNDWATER SAMPLING AND ANALYSIS

On January 11, 2007, ESA personnel mobilized to Building 199 to conduct the groundwater sampling event. The sampling activities were completed on January 16, 2007, in accordance with Florida Department of Environmental Protection (FDEP) Standard Operating Procedures for Field Activities (DEP-SOP-001/01) dated January 2002.

The sampling team collected groundwater samples from two monitoring wells (CEF-199-01S and CEF-199-04S) and one replacement well (CEF-199-07SR). The samples were packed on ice and transported to Advanced Environmental Laboratories, Inc in Jacksonville, Florida. The samples were analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl-tert-butyl ether (MTBE) using United States Environmental Protection Agency (US EPA) Method 8021B. The laboratory analytical results from this supplemental assessment are summarized in Table 1. Copies of the laboratory analytical report and chain-of-custody documentation are provided in Attachment A.

GROUNDWATER ANALYTICAL RESULTS

The analytical results for the groundwater samples collected at Building 199 from this supplemental assessment have been compared to appropriate groundwater cleanup target levels (GCTLs). No volatile organic compounds (VOCs) have been detected in the source well CEF-199-01S since 2005. All reported compounds remained below their respective GCTLs and were recorded at undetected concentrations.

All VOC compounds benzene, ethylbenzene, methyl-tert-butyl ether, total xylenes, and toluene were undetected at concentrations 0.63 U $\mu\text{g/L}$ [GCTL 1.0 $\mu\text{g/L}$], 0.51 U $\mu\text{g/L}$ [GCTL 30.0 $\mu\text{g/L}$], 1.1 U $\mu\text{g/L}$ [GCTL 20.0 $\mu\text{g/L}$], 1.89 U $\mu\text{g/L}$ [GCTL 20.0 $\mu\text{g/L}$], and 0.69 U $\mu\text{g/L}$ [GCTL 1.0 $\mu\text{g/L}$], respectively.

SUPPLEMENTAL ASSESSMENT SUMMARY

The water level data collected as part of the supplemental assessment indicates that groundwater flow is generally to the North. This conclusion generally agrees with the flow data direction given in the Supplemental Assessment Report (SAR) and subsequent monitoring reports.

The concentrations of BTEX detected in source well CEF-199-01S has decreased over the past three annual sampling events with each of the concentrations below their respective GCTL's. This SAR continues to report levels of BTEX and MTBE at or below detectable limits. The concentrations of BTEX and MTBE in perimeter wells CEF-199-04S and CEF-199-07SR were similar to the concentrations reported during the previous sampling events and reported at below detection limits.

RECOMMENDATIONS

Based on the results of the Supplemental Assessment and a review of the historical site, ESA recommends that the annual monitoring program and site rehabilitation be completed. In order for the site to be closed out, the Florida Department of Environmental Protection Division of Waste Management Bureau of Waste Cleanup Federal Programs Section requires a Site Rehabilitation Completion Report (No Further Action Proposal) that is signed and sealed by either a Professional Geologist or Professional Engineer in accordance with Rule 62-770.490, Florida Administrative Code. This SRCR will include a summary of all the activities that have taken place at the site and will have the information required by Rule 62-770.690(10), F.A.C.

If you have any questions regarding the information presented in this document, please contact me by phone at (704) 598-4407, or via e-mail at talmekinder@esaenvironmental.com.

Sincerely,

A handwritten signature in cursive script that reads "Tara Almekinder".

Tara L. Almekinder, REM
Environmental Project Manager

**Table Groundwater Analytical Results
Area 199 2007 Annual Sampling Event**

Parameter	Station ID		CEF 199-1S	CEF 199-4S	CEF 199-7SR	Equipment Blank
	Sample ID		J070328-01	J070328-02	J070328-04	J070328-03
	Sample Date		1/11/07	1/11/07	1/11/07	1/11/07
	GCTL ¹	NADC ¹				
	micrograms per liter (µg/L)					
Volatile Aromatic Hydrocarbons						
Benzene	1	10	0.63 U	0.63 U	0.63 U	0.21 U
Ethylbenzene	30	300	0.51 U	0.51 U	0.51 U	0.19 U
Methyl-tert-butyl Ether	20	200	1.1 U	1.1 U	1.1 U	0.63 U
Xylenes (total)	20	200	1.89 U	1.89 U	1.89 U	0.35 U
Toluene	1	10	0.69 U	0.69 U	0.69 U	0.23 U

Notes:

GCTL - Groundwater Cleanup Target Level, 1 = Chapter 62-777 FAC GCTLs reported in µg/L

Bold indicates concentration exceeds GCTL

NADC - Natural Attenuation Default Concentration, Shade indicates concentration exceeds NADC

U - the compound was analyzed for but not detected

ATTACHMENT A



Client: URS
Project Name: Cecil Field 199
Project Number:

Report No.: J070328
Date Sampled: 1/11/07
Date Received: 1/11/07 15:57
Date Reported: 1/16/07

Attention: Bill Kelly
Phone Number: 9046456233
Address: 8761 Perimeter Park Blvd.
Suite 201
Jacksonville, FL 32216

Project Description

The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody.

Project Name: Cecil Field 199

Approved By: _____

Paul Gunsaulies, Project Manager

If there are any questions involving this report, the above named should be contacted.

**THIS REPORT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT
THE WRITTEN APPROVAL OF THE LABORATORY.**

Advanced Environmental Laboratories certifies that the test results in this report meet all requirements of the NELAC standards, unless notated otherwise in the body of the report.

Total Number of Pages = 5 + 2 COC

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J070328

Project Name: Cecil Field 199

Date/Time Received: 1/11/07 15:57

Lab Code: J070328-01

Date/Time Sampled: 1/11/07 11:31

Client Sample ID: 1

Shipping Method: Client Drop Off

Site: CEF 199-1S

Sampled By: Juan Zambrana

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	3	0.63	2.5	0.63	ug/L	U	SW8021B		J
Ethylbenzene	3	0.51	2.0	0.51	ug/L	U	SW8021B		J
m&p-Xylenes	3	1.2	4.8	1.2	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	3	1.1	4.2	1.1	ug/L	U	SW8021B		J
o-Xylene	3	0.69	2.8	0.69	ug/L	U	SW8021B		J
Toluene	3	0.69	2.8	0.69	ug/L	U	SW8021B		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	100		SW8021B	SW5030B

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Lab Code: J070328-02

Date/Time Sampled: 1/11/07 12:24

Client Sample ID: 2

Shipping Method: Client Drop Off

Site: CEF 199-4S

Sampled By: Juan Zambrana

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	3	0.63	2.5	0.63	ug/L	U	SW8021B		J
Ethylbenzene	3	0.51	2.0	0.51	ug/L	U	SW8021B		J
m&p-Xylenes	3	1.2	4.8	1.2	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	3	1.1	4.2	1.1	ug/L	U	SW8021B		J
o-Xylene	3	0.69	2.8	0.69	ug/L	U	SW8021B		J
Toluene	3	0.69	2.8	0.69	ug/L	U	SW8021B		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	106		SW8021B	SW5030B

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J070328

Project Name: Cecil Field 199

Date/Time Received: 1/11/07 15:57

Lab Code: J070328-03

Date/Time Sampled: 1/11/07 11:00

Client Sample ID: 3

Shipping Method: Client Drop Off

Site: EQUIPMENT BLANK

Sampled By: Juan Zambrana

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	1	0.21	0.84	0.21	ug/L	U	SW8021B		J
Ethylbenzene	1	0.17	0.68	0.17	ug/L	U	SW8021B		J
m&p-Xylenes	1	0.40	1.6	0.40	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	1	0.35	1.4	0.35	ug/L	U	SW8021B		J
o-Xylene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J
Toluene	1	0.23	0.92	0.23	ug/L	U	SW8021B		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	102		SW8021B	SW5030B

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Lab Code: J070328-04

Date/Time Sampled: 1/11/07 14:15

Client Sample ID: 4

Shipping Method: Client Drop Off

Site: CEF 199-7SR

Sampled By: Juan Zambrana

Matrix: Water

Sampling Method: G

BTEX/MTBE

Analytes:	Dilution	Adjusted MDL	Adjusted PQL	Results	Units	Qualifier(s)	Method	Parameter Comment	Lab
Benzene	3	0.63	2.5	0.63	ug/L	U	SW8021B		J
Ethylbenzene	3	0.51	2.0	0.51	ug/L	U	SW8021B		J
m&p-Xylenes	3	1.2	4.8	1.2	ug/L	U	SW8021B		J
Methyl-tert-butyl Ether	3	1.1	4.2	1.1	ug/L	U	SW8021B		J
o-Xylene	3	0.69	2.8	0.69	ug/L	U	SW8021B		J
Toluene	3	0.69	2.8	0.69	ug/L	U	SW8021B		J

Surrogates:	Control Limits	% Recovery	Qual.	Method	Prep Method
1-Bromo-4-chlorobenzene	75 - 119	98		SW8021B	SW5030B

U The compound was analyzed for but not detected.

J DOH certification #E82574 (AEL-JAX) (FL NELAC certification)

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J070328

Project Name: Cecil Field 199

Date/Time Received: 1/11/07 15:57

Sample Cross Reference Information

Lab Code: J070328-01

Site: CEF 199-1S

Client Sample Number: 1

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v011207d	1/12/07 12:55	RMB	v011207d	1/12/07 12:55:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Lab Code: J070328-02

Site: CEF 199-4S

Client Sample Number: 2

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v011207d	1/12/07 12:55	RMB	v011207d	1/12/07 12:55:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Lab Code: J070328-03

Site: EQUIPMENT BLANK

Client Sample Number: 3

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v011207d	1/12/07 12:55	RMB	v011207d	1/12/07 12:55:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Lab Code: J070328-04

Site: CEF 199-7SR

Client Sample Number: 4

Matrix: Water

Test Description	Analysis Method	Prep Method	Analytical Batch ID	Analysis Date/Time	Analyst	Prep Batch ID	Prep Date/Time
BTEX/MTBE	SW8021B	SW5030B	v011207d	1/12/07 12:55	RMB	v011207d	1/12/07 12:55:00

If the Analytical Batch ID and Prep Batch ID is null, the analysis was not performed by AEL, and the original report from the subcontracted laboratory will be provided containing this information.

Advanced Environmental Laboratories, Inc.

Analytical Report

Client: URS

Report No.: J070328

Project Name: Cecil Field 199

Date/Time Received: 1/11/07 15:57

Quality Assurance Report

Method Blanks

BTEX/MTBE							
QCBatchID	Analyte	QC Sample Type	Method	MDL	Result	Units	Qualifier
v011207d	Benzene	Method Blank	SW8021B	0.21	0.21	ug/L	U
v011207d	Ethylbenzene	Method Blank	SW8021B	0.17	0.17	ug/L	U
v011207d	m&p-Xylenes	Method Blank	SW8021B	0.40	0.40	ug/L	U
v011207d	Methyl-tert-butyl Ether	Method Blank	SW8021B	0.35	0.35	ug/L	U
v011207d	o-Xylene	Method Blank	SW8021B	0.23	0.23	ug/L	U
v011207d	Toluene	Method Blank	SW8021B	0.23	0.23	ug/L	U
Surrogate(s)	Result	Units	% Recovery	Qualifier	Acceptance Limits		
1-Bromo-4-chlorobenzene		ug/L			75 - 119		

Quality Assurance Qualifiers:

U The compound was analyzed for but not detected.

Definitions:

Water matrix refers to all aqueous matrices except drinking water, including but not limited to, wastewater, ground water, surface water, aqueous wastes and leach

Soil matrix refers to all non-aqueous matrices, including soils, solids, sludges, semi-solids, and non-aqueous waste samples

All results in mg/kg or % are reported in dry weight basis, unless notated otherwise. All results in mg/L are reported in wet weight basis.

MDL Method Detection Limit, without correction for dilution or moisture content

Adjusted Reporting Limit is the MDL accounting for all dilutions and moisture content cacluations.

PQL is defined to be 4 times the MDL, for all results qualified with a 'i' qualifier.

Sampling Method; G=Grab, P=Pump, C=Composite

The estimated measurements of uncertainty can be provided upon request

This is the last page of the analytical report.



Client: VRS Corp

Project name: Cecil Field 199

Date/Time Rcvd: 1-11-07 15:57

Log-In request number: J070328

Received by: CAT

Completed by: CAT

Cooler/Shipping Information:

Courier: AEL Client UPS Blue Streak FedEx Other (describe): _____

Type: Cooler Box Other (describe) _____

Cooler temperature: Identify the cooler and document the temperature blank or ice water measurement

Cooler ID	Temp (°C)				
	<u>0</u>				
Temp taken from	<input type="checkbox"/> Temp blank <input checked="" type="checkbox"/> Sample bottle	<input type="checkbox"/> Temp blank <input type="checkbox"/> Sample bottle			
Temp measured with	<input checked="" type="checkbox"/> IR gun S/N 9333779 <input type="checkbox"/> Thermometer (enter ID):	<input type="checkbox"/> IR gun S/N 9333779 <input type="checkbox"/> Thermometer (enter ID):	<input type="checkbox"/> IR gun S/N 9333779 <input type="checkbox"/> Thermometer (enter ID):	<input type="checkbox"/> IR gun S/N 9333779 <input type="checkbox"/> Thermometer (enter ID):	<input type="checkbox"/> IR gun S/N 9333779 <input type="checkbox"/> Thermometer (enter ID):

Other Information:

Any "NO" responses or discrepancies should be explained in the "Comments" section below.

CHECKLIST

	YES	NO	NA
1. Were custody seals on shipping container(s) intact?			<u>-</u>
2. Were custody papers properly included with samples?	<u>✓</u>		
3. Were custody papers properly filled out (ink, signed, match labels)?	<u>✓</u>		
4. Did all bottles arrive in good condition (unbroken)?	<u>✓</u>		
5. Were all bottle labels complete (sample #, date, signed, analysis, preservatives)?	<u>✓</u>		
6. Did the sample labels agree with the chain of custody?	<u>✓</u>		
7. Were correct bottles used for the tests indicated?	<u>✓</u>		
8. Were proper sample preservation techniques indicated on the label?	<u>✓</u>		
9. Were samples received within holding times?	<u>✓</u>		
10. Were all VOA vials checked for the presence of air bubbles?			<u>-</u>
11. Were there air bubbles present in the VOA vials?			<u>-</u>
12. Were samples in direct contact with wet ice? If "No," check one: <input type="checkbox"/> NO ICE <input type="checkbox"/> BLUE ICE	<u>✓</u>		
13. Was the cooler temperature less than 6°C?	<u>✓</u>		
14. Were sample pHs checked and recorded by Sample control? <i>NOTE: VOA samples are checked by laboratory analysts.</i>		<u>-</u>	
15. Were the sample containers provided by AEL?	<u>✓</u>		
16. Were samples accepted into the laboratory?	<u>✓</u>		

Comments:
