

**SUMMARY REPORT  
84 BANYAN DRIVE (FORMERLY 120 BANYAN DRIVE)  
LAUREL BAY MILITARY HOUSING AREA  
MARINE CORPS AIR STATION BEAUFORT  
BEAUFORT, SC**

**Revision: 0  
Prepared for:**

**Department of the Navy  
Naval Facilities Engineering Command, Mid-Atlantic  
9324 Virginia Avenue  
Norfolk, Virginia 23511-3095**

**and**



**Naval Facilities Engineering Command Atlantic  
9324 Virginia Avenue  
Norfolk, Virginia 23511-3095**

**JUNE 2021**

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Norfolk, Virginia 23511-3095**

**Prepared by:**

**CDM - AECOM**  
Multimedia Joint Venture

**CDM - AECOM Multimedia Joint Venture  
10560 Arrowhead Drive, Suite 500  
Fairfax, Virginia 22030**

**Contract Number: N62470-14-D-9016  
CTO WE52  
JUNE 2021**

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### List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CTO	Contract Task Order
COPC	constituents of potential concern
ft	feet
IDIQ	Indefinite Delivery, Indefinite Quantity
IGWA	Initial Groundwater Assessment
JV	Joint Venture
LBMH	Laurel Bay Military Housing
MCAS	Marine Corps Air Station
NAVFAC Mid-Lant	Naval Facilities Engineering Command Mid-Atlantic
NFA	No Further Action
PAH	polynuclear aromatic hydrocarbon
QAPP	Quality Assurance Program Plan
RBSL	risk-based screening level
SCDHEC	South Carolina Department of Health and Environmental Control
Site	LBMH area at MCAS Beaufort, South Carolina
UST	underground storage tank
VISL	vapor intrusion screening level

## **1.0 INTRODUCTION**

The CDM - AECOM Multimedia Joint Venture (JV) was contracted by the Naval Facilities Engineering Command, Mid-Atlantic (NAVFAC Mid-Lant) to provide reporting services for the heating oil underground storage tanks (USTs) located in Laurel Bay Military Housing (LBMH) area at the Marine Corps Air Station (MCAS) Beaufort, South Carolina (Site). This work has been awarded under Contract Task Order (CTO) WE52 of the Indefinite Delivery, Indefinite Quantity (IDIQ) Multimedia Environmental Compliance Contract (Contract No. N62470-14-D-9016).

As of January 2014, the LBMH addresses were re-numbered to comply with the E-911 emergency response addressing system; however, in order to remain consistent with historical sampling and reporting for LBMH area, the residences will continue to be referenced with their original address numbers in sample nomenclature and reporting documents.

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 84 Banyan Drive (Formerly 120 Banyan Drive). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

- Background information;
- Sampling activities and results; and
- A determination of the property status.

### **1.1 Background Information**

The LBMH area is located approximately 3.5 miles west of MCAS Beaufort. The area is approximately 970 acres in size and serves as an enlisted and officer family housing area. The area is configured with single family and duplex residential structures, and includes recreation, open space, and community facilities. The community includes approximately 1,300 housing units, including legacy Capehart style homes and newer duplex style homes. The housing area

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is bordered on the west by salt marshes and the Broad River, and to the north, east and south by uplands. Forested areas lie along the northern and northeastern borders.

Capehart style homes within the LBMH area were formerly heated using heating oil stored in USTs at each residence. There were 1,100 Capehart style housing units in the LBMH area. The newer duplex homes within the LBMH area never utilized heating oil tanks. Heating oil has not been used at Laurel Bay since the mid-1980s. As was the accepted practice at the time, USTs were drained, filled with dirt, capped, and left in place when they were removed from service. Residential USTs are not regulated in the State of South Carolina (i.e., there are no federal or state laws governing installation, management, or removal).

In 2007, MCAS Beaufort began a voluntary program to remove the unregulated, residential USTs and conduct sampling activities to determine if, and to what extent, petroleum constituents may have impacted the surrounding environment. MCAS Beaufort coordinated with SCDHEC to develop removal procedures that were consistent with procedural requirements for regulated USTs. All tank removal activities and follow-on actions are conducted in coordination with SCDHEC. To date, all known USTs have been removed from all residential properties within the LBMH area.

## **1.2 UST Removal and Assessment Process**

During the UST removal process, a soil sample was collected from beneath the UST excavations (approximately 4 to 6 feet [ft] below ground surface [bgs]) and analyzed for a predetermined list of constituents of potential concern (COPCs) associated with the petroleum compounds found in home heating oil. These COPCs, derived from the *Quality Assurance Program Plan (QAPP) for the Underground Storage Tank Management Division, Revision 3.1* (SCDHEC, 2016) and the *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, (SCDHEC, 2018), are as follows:

- benzene, toluene, ethylbenzene, and xylenes (BTEX),
- naphthalene, and
- five select polynuclear aromatic hydrocarbon (PAHs): benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and dibenz(a,h)anthracene.

Soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form. In accordance with SCDHEC's *QAPP for the UST Management*

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*Division* (SCDHEC, 2016), the soil screening levels consists of SCDHEC risk-based screening levels (RBSLs). It should be noted that the RBSLs for select PAHs were revised in Revision 2.0 of the QAPP (SCDHEC, 2013) and were revised again in Revision 3.0 (SCDHEC, May 2015). The screening levels used for evaluation at each site were those levels that were in effect at the time of reporting and review by SCDHEC.

The results of the soil sampling at each former UST location were used to determine if a potential for groundwater contamination exists (i.e., soil results greater than RBSLs) and subsequently to select properties for follow-up initial groundwater assessment (IGWA) sampling. The results of the IGWA sampling (if necessary) are used to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations will require additional delineation of COPCs in groundwater. In order to delineate the extent of impact to groundwater, permanent wells are installed and a sampling program is established for those former UST locations where IGWA sampling has indicated the presence of COPCs in excess of the SCDHEC RBSLs for groundwater. Groundwater analytical results are also compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion and the necessity for an investigation associated with this media. A multi-media investigation selection process tree, applicable to the LBMH UST investigations, is presented as Appendix A.

## **2.0 SAMPLING ACTIVITIES AND RESULTS**

The following section presents the sampling activities and associated results for 84 Banyan Drive (Formerly 120 Banyan Drive). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 120 Banyan Drive* (MCAS Beaufort, 2009). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – July 2013* (Resolution Consultants, 2015). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

### **2.1 UST Removal and Soil Sampling**

In March 2009, three 280 gallon heating oil USTs were removed at 84 Banyan Drive (Formerly 120 Banyan Drive). Tank 1 was removed on March 3, 2009, from the landscaped area adjacent to the driveway. Tank 2 was removed on March 2, 2009, from the front yard adjacent to the driveway. Tank 3 was removed on March 2, 2009, from the front yard adjacent to the concrete

porch. The former UST locations are indicated in Figures 2 and 3 of the UST Assessment Report (Appendix B). The USTs were removed, cleaned, and shipped offsite for recycling. There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depths to the bases of the USTs were 6'1" (Tank 1), 4'10" (Tank 2) and 3'10" (Tank 3) bgs and a single soil sample was collected for each at that depth. The samples were collected from the fill port side of the former USTs to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of each excavation and shipped to an offsite laboratory for analysis of the petroleum COPCs. Sampling was performed in accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment guidelines.

## **2.2 Soil Analytical Results**

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A copy of the laboratory analytical data report is included in the UST Assessment Report presented in Appendix B. The laboratory analytical data report includes the soil results for the additional PAHs that were analyzed, but do not have associated RBSLs.

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from 84 Banyan Drive (Formerly 120 Banyan Drive) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated May 12, 2009, SCDHEC requested an IGWA for 84 Banyan Drive (Formerly 120 Banyan Drive) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

## **2.3 Groundwater Sampling**

On July 18, 2013, a temporary monitoring well was installed at 84 Banyan Drive (Formerly 120 Banyan Drive), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST locations are



indicated in Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – July 2013* (Resolution Consultants, 2015).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporarily installed monitoring well. Following well installation and development, groundwater samples were collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary well was abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71 (SCDHEC, 2016). Field forms are provided in the *Initial Groundwater Investigation Report – July 2013* (Resolution Consultants, 2015).

## **2.4 Groundwater Analytical Results**

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 2. A copy of the laboratory analytical data report is included in Appendix C.

The groundwater results collected from 84 Banyan Drive (Formerly 120 Banyan Drive) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

## **3.0 PROPERTY STATUS**

Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 46 Banyan Drive (Formerly 116 Banyan Drive). This NFA determination was obtained in a letter dated August 6, 2015. SCDHEC's NFA letter is provided in Appendix D.

## **4.0 REFERENCES**

Marine Corps Air Station Beaufort (SCDHEC) 2009. *South Carolina Early Assessment Report Health and Environmental Control*.  
*Banyan Drive, Laurel Bay Military Housing Area, April 2009.*

Resolution Consultants, 2015. *Initial Groundwater Investigation Report – July 2013 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina, June 2015.*

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 2.0*, April 2013.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0*, May 2015.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1*, February 2016.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

## Tables

**Table 1**  
**Laboratory Analytical Results - Soil**  
**84 Banyan Drive (Formerly 120 Banyan Drive)**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Samples Collected 03/02/09 and 03/03/09		
		120 Banyan-1	120 Banyan-2	120 Banyan-3
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)</b>				
Benzene	0.003	ND	ND	ND
Ethylbenzene	1.15	<b>0.00674</b>	<b>0.0722</b>	<b>0.108</b>
Naphthalene	0.036	<b>0.159</b>	<b>2.33</b>	<b>1.31</b>
Toluene	0.627	ND	ND	ND
Xylenes, Total	13.01	ND	<b>0.0155</b>	<b>0.216</b>
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)</b>				
Benzo(a)anthracene	0.66	<b>0.817</b>	ND	ND
Benzo(b)fluoranthene	0.66	<b>0.452</b>	ND	ND
Benzo(k)fluoranthene	0.66	<b>0.298</b>	ND	ND
Chrysene	0.66	<b>0.542</b>	ND	ND
Dibenz(a,h)anthracene	0.66	ND	ND	ND

**Notes:**

<sup>(1)</sup> South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 and 1.1 (SCDHEC, May 2001 and SCDHEC, February 2011) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the SCDHEC RBSL.

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The soil laboratory report is provided in Appendix B.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

**Table 2**  
**Laboratory Analytical Results - Groundwater**  
**84 Banyan Drive (Formerly 120 Banyan Drive)**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>	Results Sample Collected 07/18/13
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)</b>			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	<b>5.3</b>
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)</b>			
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA	ND
Benzo(k)fluoranthene	10	NA	ND
Chrysene	10	NA	ND
Dibenz(a,h)anthracene	10	NA	ND

**Notes:**

(1) South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1 (SCDHEC, February 2016).

(2) Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of  $1 \times 10^{-6}$ , a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the SCDHEC RBSL and/or the Site-Specific Groundwater VISL.

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The groundwater laboratory report is provided in Appendix C.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

**Appendix A**  
**Multi-Media Selection Process for LBMH**



Appendix A - Multi-Media Selection Process for LBMH

**Appendix B**  
**UST Assessment Report**



04176

South Carolina Department of Health and Environmental Control (SCDHEC)  
**Underground Storage Tank (UST) Assessment Report**

<b>Date Received</b>	
<b>State Use Only</b>	

Submit Completed Form To:  
 UST Program  
 SCDHEC  
 2600 Bull Street  
 Columbia, South Carolina, 29201  
 Telephone (803) 896-7957

RECEIVED

APR 24 2009

SITE ASSESSMENT,  
REMEDICATION &  
REVITALIZATION

**I. OWNERSHIP OF UST (S)**

MCAS Beaufort, Commanding Officer Attn: NREAO (Craig Ehde)		
Owner Name (Corporation, Individual, Public Agency, Other)		
P.O. Box 55001		
Mailing Address		
Beaufort,	South Carolina	29904-5001
City	State	Zip Code
843	228-7317	Craig Ehde
Area Code	Telephone Number	Contact Person

**II. SITE IDENTIFICATION AND LOCATION**

Permit I.D. #	
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, SC	
Facility Name or Company Site Identifier	
120 Banyan Street, Laurel Bay Military Housing Area	
Street Address or State Road (as applicable)	
Beaufort,	Beaufort
City	County

### III. INSURANCE INFORMATION

#### Insurance Statement

The petroleum release reported to DHEC on \_\_\_\_\_ at Permit ID Number \_\_\_\_\_ may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. **This section must be completed.**

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES\_\_\_\_ NO\_\_\_\_ (check one)

If you answered YES to the above question, please complete the following information:

My policy provider is: \_\_\_\_\_  
The policy deductible is: \_\_\_\_\_  
The policy limit is: \_\_\_\_\_

If you have this type of insurance, please include a copy of the policy with this report.

### IV. REQUEST FOR SUPERB FUNDING

I **DO / DO NOT** wish to participate in the SUPERB Program. (Circle one.)

### V. CERTIFICATION (To be signed by the UST owner)

**I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.**

\_\_\_\_\_  
Name (Type or print.)

\_\_\_\_\_  
Signature

#### To be completed by Notary Public:

Sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Name)

Notary Public for the state of \_\_\_\_\_  
*Please affix State seal if you are commissioned outside South Carolina*

**VI: UST INFORMATION**

UST

Tank-1	Tank-2	Tank-3			
120Banyan-1	120Banyan-1	120Banyan-2	120Banyan-2	120Banyan-3	120Banyan-3
heating oil		heating oil		heating oil	
280 gal		280 gal		280 gal	
Late 1950s		Late 1950s		Late 1950s	
steel		steel		steel	
Mid 1980s		Mid 1980s		Mid 1980s	
6'1"		4'10"		3'10"	
No		No		No	
No		No		No	
Removed		Removed		Removed	
3/3/09		3/2/09		3/2/09	
yes		yes		yes	
yes		yes		yes	

- A. Product...(ex. Gas, Kerosene).....
- B. Capacity...(ex. 1k, 2k).....
- C. Age.....
- D. Construction Material...(ex. Steel, FRP).....
- E. Month/Year of Last Use.....
- F. Depth (ft.) To Base of Tank.....
- G. Spill Prevention Equipment Y/N.....
- H. Overfill Prevention Equipment Y/N.....
- I. Method of Closure Removed/Filled.....
- J. Date Tanks Removed/Filled.....
- K. Visible Corrosion or Pitting Y/N.....
- L. Visible Holes Y/N.....

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)  
 The three tanks were removed from the ground, cleaned, cut up and the steel re-cycled. See Attachment "A".

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N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)  
 Waste water was pumped out and disposed of by MCAS Beaufort.

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O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST  
 Holes and pitting were located along end seams.

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## VII. PIPING INFORMATION

	<del>Tank 1</del>	<del>Tank 2</del>	<del>Tank 3</del>		
	120Banyan-1		120Banyan-2	120Banyan-2	120Banyan-3
A. Construction Material..(ex. Steel, FRP).....	Steel /Copper		Steel /Copper		Steel /Copper
B. Distance from UST to Dispenser.....	N/A		N/A		N/A
C. Number of Dispensers.....	N/A		N/A		N/A
D. Type of System Pressure or Suction.....	Suction		Suction		Suction
E. Was Piping Removed from the Ground? Y/N	Yes		Yes		Yes
F. Visible Corrosion or Pitting Y/N.....	Yes		Yes		Yes
G. Visible Holes Y/N.....	No		No		No
H. Age.....	Early 1950s		Early 1950s		Early 1950s

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.

Copper Supply and Return piping were sound. These were cut and capped at the edge of the sidewalk. Ventilation and Fill piping were steel. These were pitted and corroded throughout, and were removed.

## VIII. BRIEF SITE DESCRIPTION AND HISTORY

The USTs at the residences are constructed of single wall steel and formerly contained fuel oil for heating. These USTs were installed in the late 1950s and last used in the mid 1980s.

## IX. SITE CONDITIONS

	Yes	No	Unk
<p>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map.</p>		X	
<p>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? *Strong odor from excavation of all three tanks.</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</p>	*X		
<p>C. Was water present in the UST excavation, soil borings, or trenches?</p> <p>If yes, how far below land surface (indicate location and depth)?</p>		X	
<p>D. Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p>		X	
<p>E. Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		x	

**X. SAMPLE INFORMATION**

A. SCDHEC Lab Certification Number 96012001

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
120Baryan-1	Excav at fill end	Soil	Clay	6'1"	3/3/09 1100 hrs	S. Pratt	
120Baryan-2	Excav at fill end	Soil	Clay	4'10"	3/2/09 1445 hrs	S. Pratt	
120Baryan-3	Excav at fill end	Soil	Clay	3'10"	3/2/09 0945 hrs	S. Pratt	

\* = Depth Below the Surrounding Land Surface

**XI. SAMPLING METHODOLOGY**

Provide a detailed description of the methods used to collect and store the samples. Also include the preservative used for each sample. Please use the space provided below.

Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC Assessment Guidelines. Sample containers were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Soil samples were extracted from area below tank. The samples were marked, logged, and immediately placed in a sample cooler packed with ice to maintain an approximate temperature of 4 degrees Centigrade. Tools were thoroughly cleaned and decontaminated with the seven step decon process after each use. The samples remained in custody of SBG-EEG, Inc. until they were transferred to Test America Incorporated for analysis as documented in the Chain of Custody Record.

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## XII. RECEPTORS

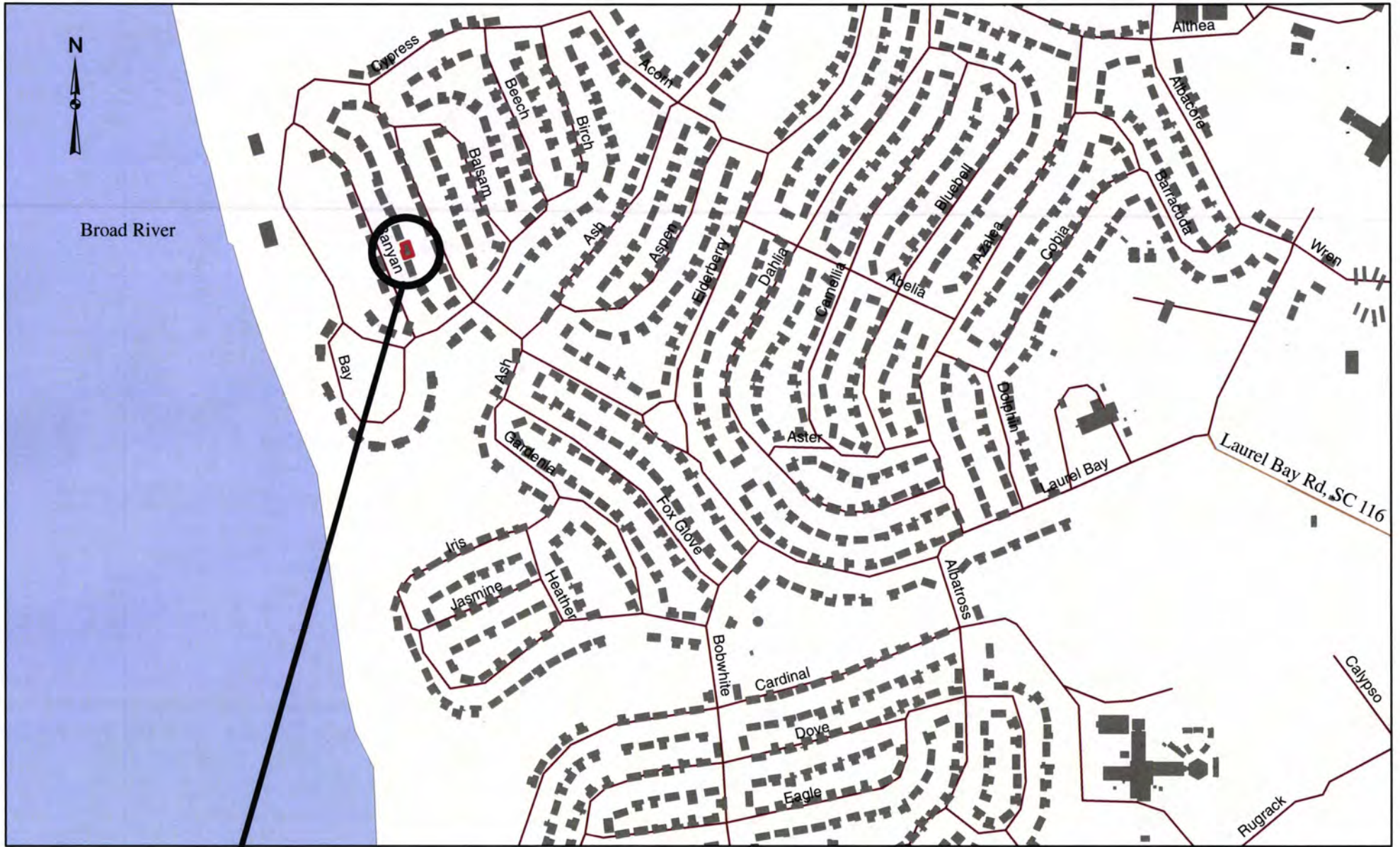
	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>	X	
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?</p> <p>If yes, indicate type of structure, distance, and direction on site map.</p>		X
<p>D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination?      *Sewer, water, electricity, cable, fiber optic</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p>	X*	
<p>E. Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>		X



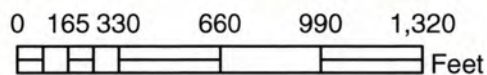
### **XIII. SITE MAP**

**You must supply a scaled site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.**

(Attach Site Map Here)



**120 Banyan**

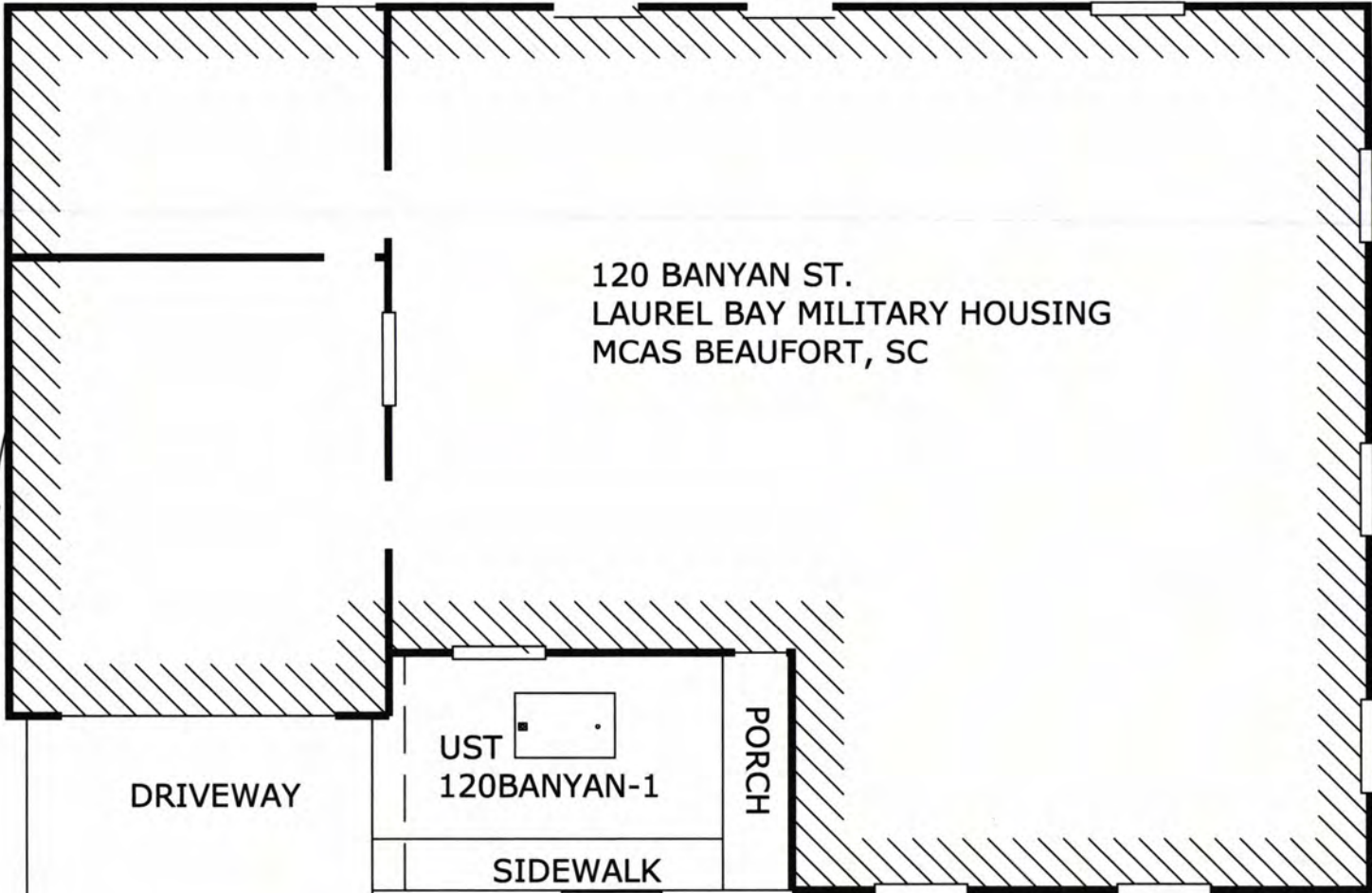
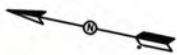


**SBG-EEG, Inc.**  
 Small Business Group, Inc.  
 10179 Hwy 78  
 Ladson, SC 29456  
 Ph. (843) 879-0400  
 Drawn By: L. DiAsio  
 Dwg Date: Mar 2009

**FIGURE 1: LOCATION MAP**  
**120 BANYAN ST., LAUREL BAY**  
**MCAS BEAUFORT SC**

690' BROAD RIVER

120 BANYAN ST.  
LAUREL BAY MILITARY HOUSING  
MCAS BEAUFORT, SC



DRIVEWAY

UST  
120BANYAN-1

PORCH

SIDEWALK

UST 120BANYAN-2

WASTE WATER

UST 120BANYAN-3

POWER  
POLE

GRAPHIC SCALE

0 5' 10' 20'

**SBG-EEG**

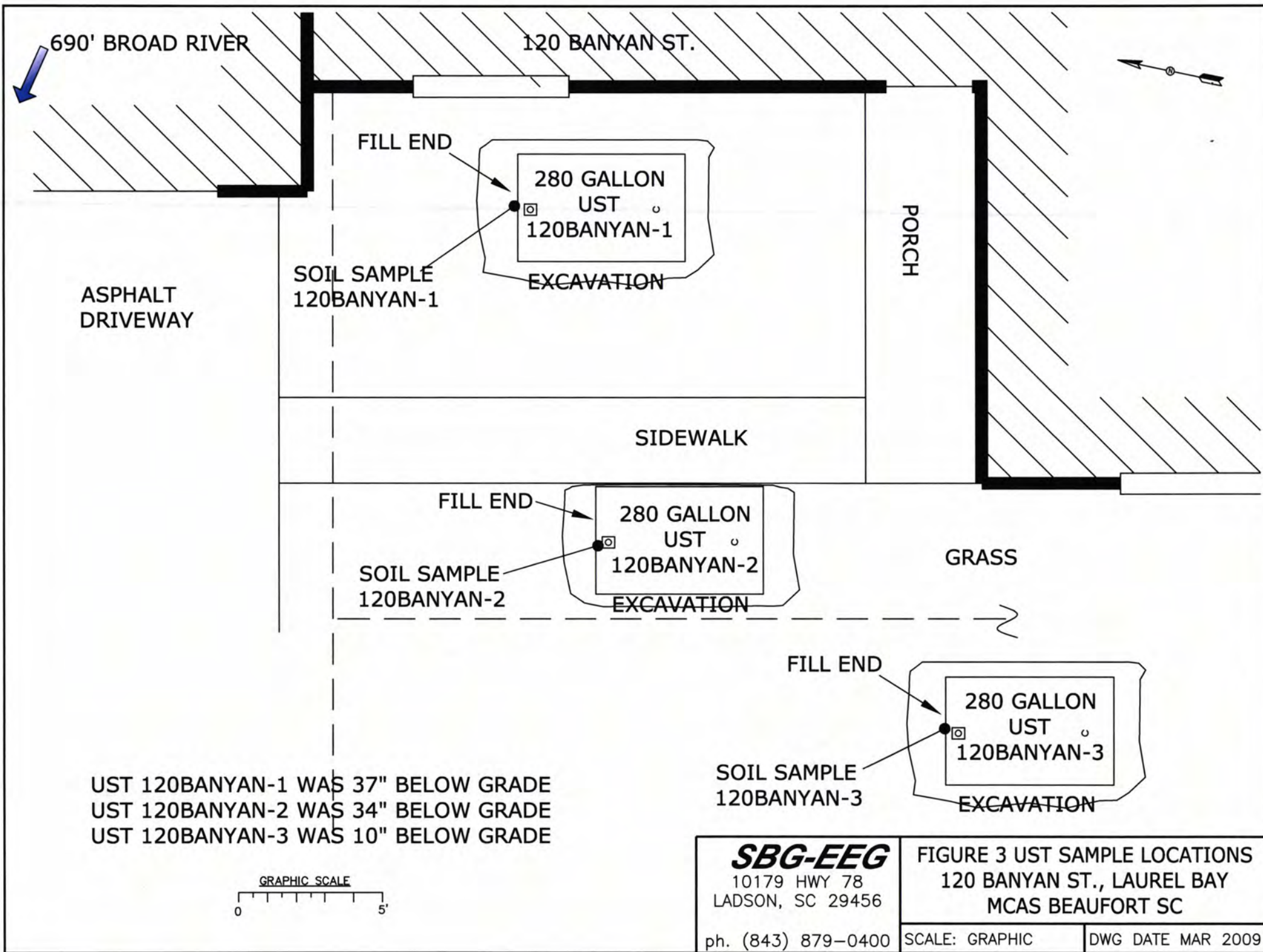
10179 HWY 78  
LADSON, SC 29456

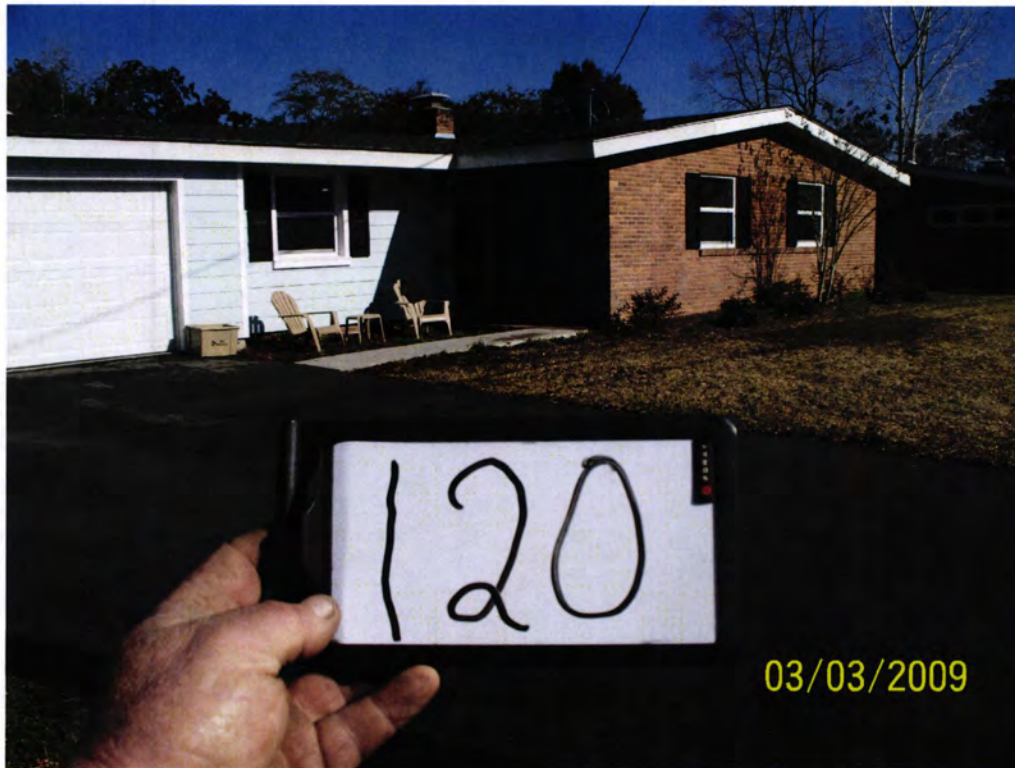
ph. (843) 879-0400

FIGURE 2 SITE MAP  
120 BANYAN ST., LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE MAR 2009





Picture 1: 120 Banyan St. site.



Picture 2: UST 120Banyan-1 during removal.



Picture 3: UST 120Banyan-2 during initial stage of removal.



Picture 4: Loose dirt and debris being scraped off UST 120Banyan-3 immediately after removal from excavation.

#### XIV. SUMMARY OF ANALYSIS RESULTS

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page.

CoC	UST	120Banyan-1		120Banyan-2		120Banyan-3		SB-7	SB-8
		SB-1	SB-2	SB-3	SB-4	SB-5	SB-6		
Benzene		ND		ND		ND			
Toluene		ND		ND		ND			
Ethylbenzene		0.00674	mg/kg	0.0722	mg/kg	0.108	mg/kg		
Xylenes		ND		0.0155	mg/kg	0.216	mg/kg		
Naphthalene		0.159	mg/kg	2.33	mg/kg	1.31	mg/kg		
Benzo (a) anthracene		0.817	mg/kg	ND		ND			
Benzo (b) fluoranthene		0.452	mg/kg	ND		ND			
Benzo (k) fluoranthene		0.298	mg/kg	ND		ND			
Chrysene		0.542	mg/kg	ND		ND			
Dibenz (a, h) anthracene		ND		ND		ND			
TPH (EPA 3550)									

CoC	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo (a) anthracene								
Benzo (b) fluoranthene								
Benzo (k) fluoranthene								
Chrysene								
Dibenz (a, h) anthracene								
TPH (EPA 3550)								

### SUMMARY OF ANALYSIS RESULTS (cont'd)

Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
<b>Free Product Thickness</b>	<b>None</b>				
<b>Benzene</b>	<b>5</b>				
<b>Toluene</b>	<b>1,000</b>				
<b>Ethylbenzene</b>	<b>700</b>				
<b>Xylenes</b>	<b>10,000</b>				
<b>Total BTEX</b>	<b>N/A</b>				
<b>MTBE</b>	<b>40</b>				
<b>Naphthalene</b>	<b>25</b>				
<b>Benzo (a) anthracene</b>	<b>10</b>				
<b>Benzo (b) flouranthene</b>	<b>10</b>				
<b>Benzo (k) flouranthene</b>	<b>10</b>				
<b>Chrysene</b>	<b>10</b>				
<b>Dibenz (a, h) anthracene</b>	<b>10</b>				
<b>EDB</b>	<b>.05</b>				
<b>1,2-DCA</b>	<b>5</b>				
<b>Lead</b>	<b>Site specific</b>				



## **XV. ANALYTICAL RESULTS**

**You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.**

(Attach Certified Analytical Results and Chain-of-Custody Here)  
(Please see Form #4)

March 20, 2009 4:20:44PM

Client: EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn: Tom McElwee

Work Order: NSC0500  
Project Name: Laurel Bay Housing Project  
Project Nbr: [none]  
P/O Nbr: 0829  
Date Received: 03/06/09

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
120 Banyan-3	NSC0500-01	03/02/09 09:45
120 Banyan-2	NSC0500-02	03/02/09 14:45
120 Banyan-1	NSC0500-03	03/03/09 11:00
124 Banyan-2	NSC0500-04	03/04/09 09:40
124 Banyan-1	NSC0500-05	03/04/09 14:25
132 Banyan-2	NSC0500-06	03/05/09 09:40
132 Banyan-1	NSC0500-07	03/05/09 13:15

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

All solids results are reported in wet weight unless specifically stated.

Estimated uncertainty is available upon request.

This report has been electronically signed.

Report Approved By:



Ken A. Hayes

Senior Project Manager

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSC0500-01 (120 Banyan-3 - Soil) Sampled: 03/02/09 09:45</b>								
General Chemistry Parameters								
% Dry Solids	68.0		%	0.500	1	03/16/09 09:15	SW-846	9031949
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00217	1	03/06/09 23:01	SW846 8260B	9030971
Ethylbenzene	0.108		mg/kg dry	0.00217	1	03/06/09 23:01	SW846 8260B	9030971
Naphthalene	1.31		mg/kg dry	0.275	50	03/09/09 20:56	SW846 8260B	9031418
Toluene	ND		mg/kg dry	0.00217	1	03/06/09 23:01	SW846 8260B	9030971
Xylenes, total	0.216		mg/kg dry	0.00542	1	03/06/09 23:01	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	104 %					03/06/09 23:01	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	106 %					03/09/09 20:56	SW846 8260B	9031418
Surr: Dibromofluoromethane (55-139%)	104 %					03/06/09 23:01	SW846 8260B	9030971
Surr: Dibromofluoromethane (55-139%)	106 %					03/09/09 20:56	SW846 8260B	9031418
Surr: Toluene-d8 (57-148%)	139 %					03/06/09 23:01	SW846 8260B	9030971
Surr: Toluene-d8 (57-148%)	95 %					03/09/09 20:56	SW846 8260B	9031418
Surr: 4-Bromofluorobenzene (58-150%)	314 %	ZX				03/06/09 23:01	SW846 8260B	9030971
Surr: 4-Bromofluorobenzene (58-150%)	100 %					03/09/09 20:56	SW846 8260B	9031418
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	0.710		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Acenaphthylene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Anthracene	0.327		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Benzo (a) anthracene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Benzo (a) pyrene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Benzo (b) fluoranthene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Benzo (k) fluoranthene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Chrysene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Fluoranthene	0.130		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Fluorene	1.59		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Naphthalene	0.662		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Phenanthrene	3.44		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Pyrene	0.354		mg/kg dry	0.0978	1	03/13/09 20:35	SW846 8270C	9031032
Surr: Terphenyl-d14 (26-128%)	65 %					03/13/09 20:35	SW846 8270C	9031032
Surr: 2-Fluorobiphenyl (19-109%)	68 %					03/13/09 20:35	SW846 8270C	9031032
Surr: Nitrobenzene-d5 (22-104%)	73 %					03/13/09 20:35	SW846 8270C	9031032

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSC0500-02 (120 Banyan-2 - Soil) Sampled: 03/02/09 14:45</b>								
General Chemistry Parameters								
% Dry Solids	77.4		%	0.500	1	03/16/09 09:15	SW-846	9031949
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00208	1	03/06/09 23:31	SW846 8260B	9030971
Ethylbenzene	0.0722		mg/kg dry	0.00208	1	03/06/09 23:31	SW846 8260B	9030971
Naphthalene	2.33		mg/kg dry	0.264	50	03/09/09 21:26	SW846 8260B	9031418
Toluene	ND		mg/kg dry	0.00208	1	03/06/09 23:31	SW846 8260B	9030971
Xylenes, total	0.0155		mg/kg dry	0.00520	1	03/06/09 23:31	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	96 %					03/06/09 23:31	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	104 %					03/09/09 21:26	SW846 8260B	9031418
Surr: Dibromofluoromethane (55-139%)	97 %					03/06/09 23:31	SW846 8260B	9030971
Surr: Dibromofluoromethane (55-139%)	103 %					03/09/09 21:26	SW846 8260B	9031418
Surr: Toluene-d8 (57-148%)	141 %					03/06/09 23:31	SW846 8260B	9030971
Surr: Toluene-d8 (57-148%)	99 %					03/09/09 21:26	SW846 8260B	9031418
Surr: 4-Bromofluorobenzene (58-150%)	466 %	ZX				03/06/09 23:31	SW846 8260B	9030971
Surr: 4-Bromofluorobenzene (58-150%)	108 %					03/09/09 21:26	SW846 8260B	9031418
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	0.446		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Acenaphthylene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Anthracene	0.242		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Benzo (a) anthracene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Benzo (a) pyrene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Benzo (b) fluoranthene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Benzo (k) fluoranthene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Chrysene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Fluoranthene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Fluorene	1.20		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Naphthalene	0.859		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Phenanthrene	2.33		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Pyrene	0.137		mg/kg dry	0.0852	1	03/13/09 20:57	SW846 8270C	9031032
Surr: Terphenyl-d14 (26-128%)	62 %					03/13/09 20:57	SW846 8270C	9031032
Surr: 2-Fluorobiphenyl (19-109%)	60 %					03/13/09 20:57	SW846 8270C	9031032
Surr: Nitrobenzene-d5 (22-104%)	70 %					03/13/09 20:57	SW846 8270C	9031032

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSC0500-03 (120 Banyan-1 - Soil) Sampled: 03/03/09 11:00</b>								
General Chemistry Parameters								
% Dry Solids	75.5		%	0.500	1	03/16/09 09:15	SW-846	9031949
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00197	1	03/07/09 00:01	SW846 8260B	9030971
Ethylbenzene	0.00674		mg/kg dry	0.00197	1	03/07/09 00:01	SW846 8260B	9030971
Naphthalene	0.159		mg/kg dry	0.00492	1	03/07/09 00:01	SW846 8260B	9030971
Toluene	ND		mg/kg dry	0.00197	1	03/07/09 00:01	SW846 8260B	9030971
Xylenes, total	ND		mg/kg dry	0.00492	1	03/07/09 00:01	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	98 %					03/07/09 00:01	SW846 8260B	9030971
Surr: Dibromofluoromethane (55-139%)	98 %					03/07/09 00:01	SW846 8260B	9030971
Surr: Toluene-d8 (57-148%)	104 %					03/07/09 00:01	SW846 8260B	9030971
Surr: 4-Bromofluorobenzene (58-150%)	108 %					03/07/09 00:01	SW846 8260B	9030971
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	0.285		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Acenaphthylene	ND		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Anthracene	0.582		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Benzo (a) anthracene	0.817		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Benzo (a) pyrene	0.326		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Benzo (b) fluoranthene	0.452		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Benzo (k) fluoranthene	0.298		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Chrysene	0.542		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Fluoranthene	3.07		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Fluorene	0.534		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Indeno (1,2,3-cd) pyrene	0.0989		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Naphthalene	0.236		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Phenanthrene	3.06		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Pyrene	2.61		mg/kg dry	0.0861	1	03/13/09 21:19	SW846 8270C	9031032
Surr: Terphenyl-d14 (26-128%)	58 %					03/13/09 21:19	SW846 8270C	9031032
Surr: 2-Fluorobiphenyl (19-109%)	57 %					03/13/09 21:19	SW846 8270C	9031032
Surr: Nitrobenzene-d5 (22-104%)	62 %					03/13/09 21:19	SW846 8270C	9031032

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSC0500-04 (124 Banyan-2 - Soil) Sampled: 03/04/09 09:40</b>								
General Chemistry Parameters								
% Dry Solids	74.3		%	0.500	1	03/16/09 08:42	SW-846	9031942
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	0.00440		mg/kg dry	0.00198	1	03/07/09 00:31	SW846 8260B	9030971
Ethylbenzene	0.509		mg/kg dry	0.0997	50	03/10/09 22:13	SW846 8260B	9031419
Naphthalene	5.32		mg/kg dry	0.249	50	03/10/09 22:13	SW846 8260B	9031419
Toluene	ND		mg/kg dry	0.00198	1	03/07/09 00:31	SW846 8260B	9030971
Xylenes, total	ND		mg/kg dry	0.00494	1	03/07/09 00:31	SW846 8260B	9030971
<i>Surr: 1,2-Dichloroethane-d4 (41-150%)</i>	97 %					03/07/09 00:31	SW846 8260B	9030971
<i>Surr: 1,2-Dichloroethane-d4 (41-150%)</i>	107 %					03/10/09 22:13	SW846 8260B	9031419
<i>Surr: Dibromofluoromethane (55-139%)</i>	100 %					03/07/09 00:31	SW846 8260B	9030971
<i>Surr: Dibromofluoromethane (55-139%)</i>	100 %					03/10/09 22:13	SW846 8260B	9031419
<i>Surr: Toluene-d8 (57-148%)</i>	128 %					03/07/09 00:31	SW846 8260B	9030971
<i>Surr: Toluene-d8 (57-148%)</i>	98 %					03/10/09 22:13	SW846 8260B	9031419
<i>Surr: 4-Bromofluorobenzene (58-150%)</i>	137 %					03/07/09 00:31	SW846 8260B	9030971
<i>Surr: 4-Bromofluorobenzene (58-150%)</i>	104 %					03/10/09 22:13	SW846 8260B	9031419
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	0.506		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Acenaphthylene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Anthracene	0.225		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Benzo (a) anthracene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Benzo (a) pyrene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Benzo (b) fluoranthene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Benzo (k) fluoranthene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Chrysene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Fluoranthene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Fluorene	1.15		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Naphthalene	2.00		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Phenanthrene	2.50		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
Pyrene	0.202		mg/kg dry	0.0881	1	03/13/09 21:41	SW846 8270C	9031032
<i>Surr: Terphenyl-d14 (26-128%)</i>	62 %					03/13/09 21:41	SW846 8270C	9031032
<i>Surr: 2-Fluorobiphenyl (19-109%)</i>	62 %					03/13/09 21:41	SW846 8270C	9031032
<i>Surr: Nitrobenzene-d5 (22-104%)</i>	69 %					03/13/09 21:41	SW846 8270C	9031032

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSC0500-05 (124 Banyan-1 - Soil) Sampled: 03/04/09 14:25</b>								
General Chemistry Parameters								
% Dry Solids	73.5		%	0.500	1	03/16/09 08:42	SW-846	9031942
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00225	1	03/07/09 01:01	SW846 8260B	9030971
Ethylbenzene	0.00806		mg/kg dry	0.00178	1	03/09/09 15:57	SW846 8260B	9031418
Naphthalene	0.0729		mg/kg dry	0.00445	1	03/09/09 15:57	SW846 8260B	9031418
Toluene	ND		mg/kg dry	0.00225	1	03/07/09 01:01	SW846 8260B	9030971
Xylenes, total	0.0153		mg/kg dry	0.00562	1	03/07/09 01:01	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	99 %					03/07/09 01:01	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	101 %					03/09/09 15:57	SW846 8260B	9031418
Surr: Dibromofluoromethane (55-139%)	104 %					03/07/09 01:01	SW846 8260B	9030971
Surr: Dibromofluoromethane (55-139%)	107 %					03/09/09 15:57	SW846 8260B	9031418
Surr: Toluene-d8 (57-148%)	141 %					03/07/09 01:01	SW846 8260B	9030971
Surr: Toluene-d8 (57-148%)	118 %					03/09/09 15:57	SW846 8260B	9031418
Surr: 4-Bromofluorobenzene (58-150%)	467 %	ZX				03/07/09 01:01	SW846 8260B	9030971
Surr: 4-Bromofluorobenzene (58-150%)	137 %					03/09/09 15:57	SW846 8260B	9031418
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	0.417		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Acenaphthylene	ND		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Anthracene	2.03		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Benzo (a) anthracene	7.04		mg/kg dry	0.449	5	03/14/09 08:14	SW846 8270C	9031032
Benzo (a) pyrene	2.77		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Benzo (b) fluoranthene	3.76		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Benzo (g,h,i) perylene	0.746		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Benzo (k) fluoranthene	2.26		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Chrysene	4.23		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Dibenz (a,h) anthracene	0.361		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Fluoranthene	16.7		mg/kg dry	0.449	5	03/14/09 08:14	SW846 8270C	9031032
Fluorene	1.03		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Indeno (1,2,3-cd) pyrene	0.885		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Naphthalene	ND		mg/kg dry	0.0899	1	03/13/09 22:03	SW846 8270C	9031032
Phenanthrene	7.83		mg/kg dry	0.449	5	03/14/09 08:14	SW846 8270C	9031032
Pyrene	15.7		mg/kg dry	0.449	5	03/14/09 08:14	SW846 8270C	9031032
Surr: Terphenyl-d14 (26-128%)	71 %					03/13/09 22:03	SW846 8270C	9031032
Surr: 2-Fluorobiphenyl (19-109%)	63 %					03/13/09 22:03	SW846 8270C	9031032
Surr: Nitrobenzene-d5 (22-104%)	68 %					03/13/09 22:03	SW846 8270C	9031032

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSC0500-06 (132 Banyan-2 - Soil) Sampled: 03/05/09 09:40</b>								
General Chemistry Parameters								
% Dry Solids	76.3		%	0.500	1	03/16/09 08:42	SW-846	9031942
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	0.00661		mg/kg dry	0.00205	1	03/07/09 01:31	SW846 8260B	9030971
Ethylbenzene	0.0394		mg/kg dry	0.00205	1	03/07/09 01:31	SW846 8260B	9030971
Naphthalene	0.186		mg/kg dry	0.00512	1	03/07/09 01:31	SW846 8260B	9030971
Toluene	ND		mg/kg dry	0.00205	1	03/07/09 01:31	SW846 8260B	9030971
Xylenes, total	0.0487		mg/kg dry	0.00512	1	03/07/09 01:31	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	101 %					03/07/09 01:31	SW846 8260B	9030971
Surr: Dibromofluoromethane (55-139%)	100 %					03/07/09 01:31	SW846 8260B	9030971
Surr: Toluene-d8 (57-148%)	102 %					03/07/09 01:31	SW846 8260B	9030971
Surr: 4-Bromofluorobenzene (58-150%)	102 %					03/07/09 01:31	SW846 8260B	9030971
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Acenaphthylene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Anthracene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Benzo (a) anthracene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Benzo (a) pyrene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Benzo (b) fluoranthene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Benzo (k) fluoranthene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Chrysene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Fluoranthene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Fluorene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Naphthalene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Phenanthrene	0.0880		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Pyrene	ND		mg/kg dry	0.0876	1	03/13/09 22:25	SW846 8270C	9031032
Surr: Terphenyl-d14 (26-128%)	64 %					03/13/09 22:25	SW846 8270C	9031032
Surr: 2-Fluorobiphenyl (19-109%)	53 %					03/13/09 22:25	SW846 8270C	9031032
Surr: Nitrobenzene-d5 (22-104%)	58 %					03/13/09 22:25	SW846 8270C	9031032



Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn Tom McElwee

Work Order: NSC0500  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 03/06/09 08:15

## ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
<b>Sample ID: NSC0500-07 (132 Banyan-1 - Soil) Sampled: 03/05/09 13:15</b>								
General Chemistry Parameters								
% Dry Solids	80.9		%	0.500	1	03/16/09 08:42	SW-846	9031942
Selected Volatile Organic Compounds by EPA Method 8260B								
Benzene	ND		mg/kg dry	0.00218	1	03/07/09 02:01	SW846 8260B	9030971
Ethylbenzene	0.0551		mg/kg dry	0.00218	1	03/07/09 02:01	SW846 8260B	9030971
Naphthalene	4.45		mg/kg dry	0.299	50	03/07/09 02:30	SW846 8260B	9030971
Toluene	ND		mg/kg dry	0.00218	1	03/07/09 02:01	SW846 8260B	9030971
Xylenes, total	0.0350		mg/kg dry	0.00545	1	03/07/09 02:01	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	106 %					03/07/09 02:01	SW846 8260B	9030971
Surr: 1,2-Dichloroethane-d4 (41-150%)	101 %					03/07/09 02:30	SW846 8260B	9030971
Surr: Dibromofluoromethane (55-139%)	105 %					03/07/09 02:01	SW846 8260B	9030971
Surr: Dibromofluoromethane (55-139%)	101 %					03/07/09 02:30	SW846 8260B	9030971
Surr: Toluene-d8 (57-148%)	116 %					03/07/09 02:01	SW846 8260B	9030971
Surr: Toluene-d8 (57-148%)	98 %					03/07/09 02:30	SW846 8260B	9030971
Surr: 4-Bromofluorobenzene (58-150%)	116 %					03/07/09 02:01	SW846 8260B	9030971
Surr: 4-Bromofluorobenzene (58-150%)	106 %					03/07/09 02:30	SW846 8260B	9030971
Polyaromatic Hydrocarbons by EPA 8270C								
Acenaphthene	0.615		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Acenaphthylene	ND		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Anthracene	0.507		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Benzo (a) anthracene	0.739		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Benzo (a) pyrene	0.523		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Benzo (b) fluoranthene	0.676		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Benzo (g,h,i) perylene	0.162		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Benzo (k) fluoranthene	0.418		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Chrysene	0.703		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Fluoranthene	2.03		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Fluorene	1.28		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Indeno (1,2,3-cd) pyrene	0.189		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Naphthalene	1.80		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Phenanthrene	2.56		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Pyrene	2.67		mg/kg dry	0.0827	1	03/13/09 22:47	SW846 8270C	9031032
Surr: Terphenyl-d14 (26-128%)	67 %					03/13/09 22:47	SW846 8270C	9031032
Surr: 2-Fluorobiphenyl (19-109%)	63 %					03/13/09 22:47	SW846 8270C	9031032
Surr: Nitrobenzene-d5 (22-104%)	74 %					03/13/09 22:47	SW846 8270C	9031032

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

### SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>							
SW846 8270C	9031032	NSC0500-01	30.22	1.00	03/09/09 08:40	DMG	EPA 3550B
SW846 8270C	9031032	NSC0500-02	30.49	1.00	03/09/09 08:40	DMG	EPA 3550B
SW846 8270C	9031032	NSC0500-03	30.93	1.00	03/09/09 08:40	DMG	EPA 3550B
SW846 8270C	9031032	NSC0500-04	30.72	1.00	03/09/09 08:40	DMG	EPA 3550B
SW846 8270C	9031032	NSC0500-05	30.42	1.00	03/09/09 08:40	DMG	EPA 3550B
SW846 8270C	9031032	NSC0500-05RE1	30.42	1.00	03/09/09 08:40	DMG	EPA 3550B
SW846 8270C	9031032	NSC0500-06	30.08	1.00	03/09/09 08:40	DMG	EPA 3550B
SW846 8270C	9031032	NSC0500-07	30.06	1.00	03/09/09 08:40	DMG	EPA 3550B
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>							
SW846 8260B	9030971	NSC0500-01	6.78	5.00	03/02/09 09:45	JRL	EPA 5035
SW846 8260B	9031418	NSC0500-01RE1	6.69	5.00	03/02/09 09:45	JRL	EPA 5035
SW846 8260B	9030971	NSC0500-02	6.21	5.00	03/02/09 14:45	JRL	EPA 5035
SW846 8260B	9031418	NSC0500-02RE1	6.12	5.00	03/02/09 14:45	JRL	EPA 5035
SW846 8260B	9030971	NSC0500-03	6.73	5.00	03/03/09 11:00	JRL	EPA 5035
SW846 8260B	9030971	NSC0500-04	6.81	5.00	03/04/09 09:40	JRL	EPA 5035
SW846 8260B	9031419	NSC0500-04RE1	6.75	5.00	03/04/09 09:40	JRL	EPA 5035
SW846 8260B	9030971	NSC0500-05	6.05	5.00	03/04/09 14:25	JRL	EPA 5035
SW846 8260B	9031418	NSC0500-05RE1	7.65	5.00	03/04/09 14:25	JRL	EPA 5035
SW846 8260B	9030971	NSC0500-06	6.40	5.00	03/05/09 09:40	JRL	EPA 5035
SW846 8260B	9030971	NSC0500-07	5.67	5.00	03/05/09 13:15	JRL	EPA 5035
SW846 8260B	9030971	NSC0500-07RE1	5.16	5.00	03/05/09 13:15	JRL	EPA 5035

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**  
**Blank**

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>						
<b>9030971-BLK1</b>						
Benzene	<0.000670		mg/kg wet	9030971	9030971-BLK1	03/06/09 20:02
Ethylbenzene	<0.000670		mg/kg wet	9030971	9030971-BLK1	03/06/09 20:02
Naphthalene	<0.00151		mg/kg wet	9030971	9030971-BLK1	03/06/09 20:02
Toluene	<0.000670		mg/kg wet	9030971	9030971-BLK1	03/06/09 20:02
Xylenes, total	<0.00172		mg/kg wet	9030971	9030971-BLK1	03/06/09 20:02
Surrogate: 1,2-Dichloroethane-d4	101%			9030971	9030971-BLK1	03/06/09 20:02
Surrogate: Dibromofluoromethane	106%			9030971	9030971-BLK1	03/06/09 20:02
Surrogate: Toluene-d8	96%			9030971	9030971-BLK1	03/06/09 20:02
Surrogate: 4-Bromofluorobenzene	91%			9030971	9030971-BLK1	03/06/09 20:02
<b>9031418-BLK1</b>						
Benzene	<0.000670		mg/kg wet	9031418	9031418-BLK1	03/09/09 15:21
Ethylbenzene	<0.000670		mg/kg wet	9031418	9031418-BLK1	03/09/09 15:21
Naphthalene	<0.00151		mg/kg wet	9031418	9031418-BLK1	03/09/09 15:21
Toluene	<0.000670		mg/kg wet	9031418	9031418-BLK1	03/09/09 15:21
Xylenes, total	<0.00172		mg/kg wet	9031418	9031418-BLK1	03/09/09 15:21
Surrogate: 1,2-Dichloroethane-d4	106%			9031418	9031418-BLK1	03/09/09 15:21
Surrogate: Dibromofluoromethane	106%			9031418	9031418-BLK1	03/09/09 15:21
Surrogate: Toluene-d8	96%			9031418	9031418-BLK1	03/09/09 15:21
Surrogate: 4-Bromofluorobenzene	93%			9031418	9031418-BLK1	03/09/09 15:21
<b>9031419-BLK1</b>						
Benzene	<0.000670		mg/kg wet	9031419	9031419-BLK1	03/10/09 17:28
Ethylbenzene	<0.000670		mg/kg wet	9031419	9031419-BLK1	03/10/09 17:28
Naphthalene	<0.00151		mg/kg wet	9031419	9031419-BLK1	03/10/09 17:28
Toluene	<0.000670		mg/kg wet	9031419	9031419-BLK1	03/10/09 17:28
Xylenes, total	<0.00172		mg/kg wet	9031419	9031419-BLK1	03/10/09 17:28
Surrogate: 1,2-Dichloroethane-d4	106%			9031419	9031419-BLK1	03/10/09 17:28
Surrogate: Dibromofluoromethane	106%			9031419	9031419-BLK1	03/10/09 17:28
Surrogate: Toluene-d8	97%			9031419	9031419-BLK1	03/10/09 17:28
Surrogate: 4-Bromofluorobenzene	91%			9031419	9031419-BLK1	03/10/09 17:28
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>						
<b>9031032-BLK1</b>						
Acenaphthene	<0.0310		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Acenaphthylene	<0.0320		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Anthracene	<0.0330		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Benzo (a) anthracene	<0.0380		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Benzo (a) pyrene	<0.0290		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Benzo (b) fluoranthene	<0.0320		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Benzo (g,h,i) perylene	<0.0290		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Benzo (k) fluoranthene	<0.0290		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**  
**Blank - Cont.**

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>						
<b>9031032-BLK1</b>						
Chrysene	<0.0390		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Dibenz (a,h) anthracene	<0.0310		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Fluoranthene	<0.0340		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Fluorene	<0.0390		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Indeno (1,2,3-cd) pyrene	<0.0310		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Naphthalene	<0.0410		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Phenanthrene	<0.0340		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Pyrene	<0.0410		mg/kg wet	9031032	9031032-BLK1	03/13/09 19:07
Surrogate: Terphenyl-d14	69%			9031032	9031032-BLK1	03/13/09 19:07
Surrogate: 2-Fluorobiphenyl	55%			9031032	9031032-BLK1	03/13/09 19:07
Surrogate: Nitrobenzene-d5	58%			9031032	9031032-BLK1	03/13/09 19:07

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn Tom McElwee

Work Order: NSC0500  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 03/06/09 08:15

### PROJECT QUALITY CONTROL DATA

#### Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>General Chemistry Parameters</b>									
<b>9031942-DUP1</b>									
% Dry Solids	74.3	72.9		%	2	20	9031942	NSC0500-04	03/16/09 08:42
<b>9031949-DUP1</b>									
% Dry Solids	95.7	94.9		%	0.8	20	9031949	NSC0584-06	03/16/09 09:15

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**  
**LCS**

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>								
<b>9030971-BS1</b>								
Benzene	50.0	53.8		ug/kg	108%	76 - 130	9030971	03/06/09 18:03
Ethylbenzene	50.0	54.2		ug/kg	108%	80 - 128	9030971	03/06/09 18:03
Naphthalene	50.0	62.9		ug/kg	126%	63 - 144	9030971	03/06/09 18:03
Toluene	50.0	51.8		ug/kg	104%	80 - 125	9030971	03/06/09 18:03
Xylenes, total	150	164		ug/kg	110%	79 - 130	9030971	03/06/09 18:03
Surrogate: 1,2-Dichloroethane-d4	50.0	52.3			105%	41 - 150	9030971	03/06/09 18:03
Surrogate: Dibromofluoromethane	50.0	53.5			107%	55 - 139	9030971	03/06/09 18:03
Surrogate: Toluene-d8	50.0	48.9			98%	57 - 148	9030971	03/06/09 18:03
Surrogate: 4-Bromofluorobenzene	50.0	46.8			94%	58 - 150	9030971	03/06/09 18:03
Fluorobenzene	50.0	50.0		ug/kg	92%	50 - 200	9030971	03/06/09 18:03
Chlorobenzene-d5	50.0	50.0		ug/kg	96%	50 - 200	9030971	03/06/09 18:03
1,4-Dichlorobenzene-d4	50.0	50.0		ug/kg	98%	50 - 200	9030971	03/06/09 18:03
<b>9031418-BS1</b>								
Benzene	50.0	55.0		ug/kg	110%	76 - 130	9031418	03/09/09 12:22
Ethylbenzene	50.0	52.1		ug/kg	104%	80 - 128	9031418	03/09/09 12:22
Naphthalene	50.0	59.4		ug/kg	119%	63 - 144	9031418	03/09/09 12:22
Toluene	50.0	50.0		ug/kg	100%	80 - 125	9031418	03/09/09 12:22
Xylenes, total	150	158		ug/kg	106%	79 - 130	9031418	03/09/09 12:22
Surrogate: 1,2-Dichloroethane-d4	50.0	53.4			107%	41 - 150	9031418	03/09/09 12:22
Surrogate: Dibromofluoromethane	50.0	54.2			108%	55 - 139	9031418	03/09/09 12:22
Surrogate: Toluene-d8	50.0	49.3			99%	57 - 148	9031418	03/09/09 12:22
Surrogate: 4-Bromofluorobenzene	50.0	48.0			96%	58 - 150	9031418	03/09/09 12:22
<b>9031419-BS1</b>								
Benzene	50.0	58.1		ug/kg	116%	76 - 130	9031419	03/10/09 15:28
Ethylbenzene	50.0	56.8		ug/kg	114%	80 - 128	9031419	03/10/09 15:28
Naphthalene	50.0	59.8		ug/kg	120%	63 - 144	9031419	03/10/09 15:28
Toluene	50.0	54.3		ug/kg	109%	80 - 125	9031419	03/10/09 15:28
Xylenes, total	150	174		ug/kg	116%	79 - 130	9031419	03/10/09 15:28
Surrogate: 1,2-Dichloroethane-d4	50.0	52.5			105%	41 - 150	9031419	03/10/09 15:28
Surrogate: Dibromofluoromethane	50.0	53.3			107%	55 - 139	9031419	03/10/09 15:28
Surrogate: Toluene-d8	50.0	49.5			99%	57 - 148	9031419	03/10/09 15:28
Surrogate: 4-Bromofluorobenzene	50.0	45.7			91%	58 - 150	9031419	03/10/09 15:28
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>								
<b>9031032-BS1</b>								
Acenaphthene	1.67	1.37		mg/kg wet	82%	52 - 106	9031032	03/13/09 19:29
Acenaphthylene	1.67	1.45		mg/kg wet	87%	53 - 109	9031032	03/13/09 19:29
Anthracene	1.67	1.55		mg/kg wet	93%	54 - 124	9031032	03/13/09 19:29
Benzo (a) anthracene	1.67	1.42		mg/kg wet	85%	53 - 111	9031032	03/13/09 19:29
Benzo (a) pyrene	1.67	1.52		mg/kg wet	91%	52 - 122	9031032	03/13/09 19:29

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**  
**LCS - Cont.**

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>								
<b>9031032-BS1</b>								
Benzo (b) fluoranthene	1.67	1.49		mg/kg wet	90%	48 - 115	9031032	03/13/09 19:29
Benzo (g,h,i) perylene	1.67	1.33		mg/kg wet	80%	46 - 114	9031032	03/13/09 19:29
Benzo (k) fluoranthene	1.67	1.39		mg/kg wet	84%	41 - 121	9031032	03/13/09 19:29
Chrysene	1.67	1.37		mg/kg wet	82%	49 - 113	9031032	03/13/09 19:29
Dibenz (a,h) anthracene	1.67	1.35		mg/kg wet	81%	47 - 117	9031032	03/13/09 19:29
Fluoranthene	1.67	1.41		mg/kg wet	84%	52 - 113	9031032	03/13/09 19:29
Fluorene	1.67	1.40		mg/kg wet	84%	54 - 107	9031032	03/13/09 19:29
Indeno (1,2,3-cd) pyrene	1.67	1.37		mg/kg wet	82%	47 - 115	9031032	03/13/09 19:29
Naphthalene	1.67	1.19		mg/kg wet	72%	34 - 107	9031032	03/13/09 19:29
Phenanthrene	1.67	1.39		mg/kg wet	83%	53 - 108	9031032	03/13/09 19:29
Pyrene	1.67	1.54		mg/kg wet	93%	54 - 113	9031032	03/13/09 19:29
Surrogate: Terphenyl-d14	1.67	1.16			70%	26 - 128	9031032	03/13/09 19:29
Surrogate: 2-Fluorobiphenyl	1.67	1.09			66%	19 - 109	9031032	03/13/09 19:29
Surrogate: Nitrobenzene-d5	1.67	1.08			65%	22 - 104	9031032	03/13/09 19:29

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**

**LCS Dup**

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>												
<b>9030971-BSD1</b>												
Benzene		53.9		ug/kg	50.0	108%	76 - 130	0.1	43	9030971		03/06/09 18:33
Ethylbenzene		54.0		ug/kg	50.0	108%	80 - 128	0.4	48	9030971		03/06/09 18:33
Naphthalene		56.9		ug/kg	50.0	114%	63 - 144	10	50	9030971		03/06/09 18:33
Toluene		52.1		ug/kg	50.0	104%	80 - 125	0.6	44	9030971		03/06/09 18:33
Xylenes, total		163		ug/kg	150	109%	79 - 130	0.8	48	9030971		03/06/09 18:33
Surrogate: 1,2-Dichloroethane-d4		49.9		ug/kg	50.0	100%	41 - 150			9030971		03/06/09 18:33
Surrogate: Dibromofluoromethane		53.3		ug/kg	50.0	107%	55 - 139			9030971		03/06/09 18:33
Surrogate: Toluene-d8		49.3		ug/kg	50.0	99%	57 - 148			9030971		03/06/09 18:33
Surrogate: 4-Bromofluorobenzene		46.8		ug/kg	50.0	94%	58 - 150			9030971		03/06/09 18:33
<b>9031418-BSD1</b>												
Benzene		52.5		ug/kg	50.0	105%	76 - 130	5	43	9031418		03/09/09 12:52
Ethylbenzene		51.8		ug/kg	50.0	104%	80 - 128	0.6	48	9031418		03/09/09 12:52
Naphthalene		57.1		ug/kg	50.0	114%	63 - 144	4	50	9031418		03/09/09 12:52
Toluene		50.3		ug/kg	50.0	101%	80 - 125	0.6	44	9031418		03/09/09 12:52
Xylenes, total		158		ug/kg	150	105%	79 - 130	0.6	48	9031418		03/09/09 12:52
Surrogate: 1,2-Dichloroethane-d4		52.1		ug/kg	50.0	104%	41 - 150			9031418		03/09/09 12:52
Surrogate: Dibromofluoromethane		53.2		ug/kg	50.0	106%	55 - 139			9031418		03/09/09 12:52
Surrogate: Toluene-d8		50.0		ug/kg	50.0	100%	57 - 148			9031418		03/09/09 12:52
Surrogate: 4-Bromofluorobenzene		48.0		ug/kg	50.0	96%	58 - 150			9031418		03/09/09 12:52
<b>9031419-BSD1</b>												
Benzene		59.0		ug/kg	50.0	118%	76 - 130	2	43	9031419		03/10/09 15:58
Ethylbenzene		57.3		ug/kg	50.0	115%	80 - 128	0.8	48	9031419		03/10/09 15:58
Naphthalene		61.4		ug/kg	50.0	123%	63 - 144	3	50	9031419		03/10/09 15:58
Toluene		54.4		ug/kg	50.0	109%	80 - 125	0.2	44	9031419		03/10/09 15:58
Xylenes, total		174		ug/kg	150	116%	79 - 130	0.05	48	9031419		03/10/09 15:58
Surrogate: 1,2-Dichloroethane-d4		52.8		ug/kg	50.0	106%	41 - 150			9031419		03/10/09 15:58
Surrogate: Dibromofluoromethane		53.5		ug/kg	50.0	107%	55 - 139			9031419		03/10/09 15:58
Surrogate: Toluene-d8		49.1		ug/kg	50.0	98%	57 - 148			9031419		03/10/09 15:58
Surrogate: 4-Bromofluorobenzene		46.0		ug/kg	50.0	92%	58 - 150			9031419		03/10/09 15:58



Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**  
**Matrix Spike**

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>										
<b>9030971-MS1</b>										
Benzene	ND	2.49		mg/kg dry	2.99	83%	33 - 146	9030971	NSC0500-07RE 1	03/07/09 03:00
Ethylbenzenc	0.240	2.65		mg/kg dry	2.99	80%	16 - 160	9030971	NSC0500-07RE 1	03/07/09 03:00
Naphthalene	4.45	6.40	M7	mg/kg dry	2.99	65%	10 - 151	9030971	NSC0500-07RE 1	03/07/09 03:00
Toluene	ND	2.30		mg/kg dry	2.99	77%	30 - 145	9030971	NSC0500-07RE 1	03/07/09 03:00
Xylenes, total	0.155	7.53		mg/kg dry	8.98	82%	16 - 159	9030971	NSC0500-07RE 1	03/07/09 03:00
<i>Surrogate: 1,2-Dichloroethane-d4</i>		51.3		ug/kg	50.0	103%	41 - 150	9030971	NSC0500-07RE 1	03/07/09 03:00
<i>Surrogate: Dibromofluoromethane</i>		51.2		ug/kg	50.0	102%	55 - 139	9030971	NSC0500-07RE 1	03/07/09 03:00
<i>Surrogate: Toluene-d8</i>		48.3		ug/kg	50.0	97%	57 - 148	9030971	NSC0500-07RE 1	03/07/09 03:00
<i>Surrogate: 4-Bromofluorobenzene</i>		50.5		ug/kg	50.0	101%	58 - 150	9030971	NSC0500-07RE 1	03/07/09 03:00
Fluorobenzene		50.0		ug/kg	50.0	83%	50 - 200	9030971	NSC0500-07RE 1	03/07/09 03:00
Chlorobenzenc-d5		50.0		ug/kg	50.0	88%	50 - 200	9030971	NSC0500-07RE 1	03/07/09 03:00
1,4-Dichlorobenzenc-d4		50.0		ug/kg	50.0	89%	50 - 200	9030971	NSC0500-07RE 1	03/07/09 03:00
<b>9031418-MS1</b>										
Benzene	ND	2.00		mg/kg wet	2.08	96%	33 - 146	9031418	NSB2383-22RE 2	03/09/09 21:56
Ethylbenzenc	ND	2.03		mg/kg wet	2.08	98%	16 - 160	9031418	NSB2383-22RE 2	03/09/09 21:56
Naphthalene	ND	2.39		mg/kg wet	2.08	115%	10 - 151	9031418	NSB2383-22RE 2	03/09/09 21:56
Toluene	ND	1.89		mg/kg wet	2.08	91%	30 - 145	9031418	NSB2383-22RE 2	03/09/09 21:56
Xylenes, total	ND	6.18		mg/kg wet	6.24	99%	16 - 159	9031418	NSB2383-22RE 2	03/09/09 21:56
<i>Surrogate: 1,2-Dichloroethane-d4</i>		52.6		ug/kg	50.0	105%	41 - 150	9031418	NSB2383-22RE 2	03/09/09 21:56
<i>Surrogate: Dibromofluoromethane</i>		51.6		ug/kg	50.0	103%	55 - 139	9031418	NSB2383-22RE 2	03/09/09 21:56
<i>Surrogate: Toluene-d8</i>		47.7		ug/kg	50.0	95%	57 - 148	9031418	NSB2383-22RE 2	03/09/09 21:56
<i>Surrogate: 4-Bromofluorobenzene</i>		50.8		ug/kg	50.0	102%	58 - 150	9031418	NSB2383-22RE 2	03/09/09 21:56
<b>9031419-MS1</b>										
Benzene	ND	2.94		mg/kg dry	2.49	118%	33 - 146	9031419	NSC0500-04RE 1	03/11/09 00:13

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456  
Attn Tom McElwee

Work Order: NSC0500  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**  
**Matrix Spike - Cont.**

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>										
<b>9031419-MS1</b>										
Ethylbenzene	0.509	3.39		mg/kg dry	2.49	116%	16 - 160	9031419	NSC0500-04RE 1	03/11/09 00:13
Naphthalene	5.32	8.26		mg/kg dry	2.49	118%	10 - 151	9031419	NSC0500-04RE 1	03/11/09 00:13
Toluene	ND	2.73		mg/kg dry	2.49	109%	30 - 145	9031419	NSC0500-04RE 1	03/11/09 00:13
Xylcnes, total	ND	8.82		mg/kg dry	7.48	118%	16 - 159	9031419	NSC0500-04RE 1	03/11/09 00:13
<i>Surrogate: 1,2-Dichloroethane-d4</i>		51.8		ug/kg	50.0	104%	41 - 150	9031419	NSC0500-04RE 1	03/11/09 00:13
<i>Surrogate: Dibromofluoromethane</i>		50.6		ug/kg	50.0	101%	55 - 139	9031419	NSC0500-04RE 1	03/11/09 00:13
<i>Surrogate: Toluene-d8</i>		49.1		ug/kg	50.0	98%	57 - 148	9031419	NSC0500-04RE 1	03/11/09 00:13
<i>Surrogate: 4-Bromofluorobenzene</i>		53.4		ug/kg	50.0	107%	58 - 150	9031419	NSC0500-04RE 1	03/11/09 00:13
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>										
<b>9031032-MS1</b>										
Acenaphthene	0.710	2.56		mg/kg dry	2.41	77%	28 - 117	9031032	NSC0500-01	03/13/09 19:51
Acenaphthylene	ND	2.14		mg/kg dry	2.41	89%	33 - 113	9031032	NSC0500-01	03/13/09 19:51
Anthracene	0.327	2.69		mg/kg dry	2.41	98%	31 - 131	9031032	NSC0500-01	03/13/09 19:51
Benzo (a) anthracene	ND	2.05		mg/kg dry	2.41	85%	29 - 124	9031032	NSC0500-01	03/13/09 19:51
Benzo (a) pyrene	ND	2.14		mg/kg dry	2.41	88%	30 - 127	9031032	NSC0500-01	03/13/09 19:51
Benzo (b) fluoranthene	ND	2.26		mg/kg dry	2.41	93%	26 - 128	9031032	NSC0500-01	03/13/09 19:51
Benzo (g,h,i) perylene	ND	1.93		mg/kg dry	2.41	80%	21 - 122	9031032	NSC0500-01	03/13/09 19:51
Benzo (k) fluoranthene	ND	1.87		mg/kg dry	2.41	77%	20 - 130	9031032	NSC0500-01	03/13/09 19:51
Chrysene	ND	2.00		mg/kg dry	2.41	83%	30 - 119	9031032	NSC0500-01	03/13/09 19:51
Dibenz (a,h) anthracene	ND	2.00		mg/kg dry	2.41	83%	27 - 122	9031032	NSC0500-01	03/13/09 19:51
Fluoranthene	0.130	2.46		mg/kg dry	2.41	96%	23 - 132	9031032	NSC0500-01	03/13/09 19:51
Fluorene	1.59	3.82		mg/kg dry	2.41	92%	38 - 110	9031032	NSC0500-01	03/13/09 19:51
Indeno (1,2,3-cd) pyrene	ND	1.96		mg/kg dry	2.41	81%	24 - 122	9031032	NSC0500-01	03/13/09 19:51
Naphthalene	0.662	2.23		mg/kg dry	2.41	65%	14 - 117	9031032	NSC0500-01	03/13/09 19:51
Phenanthrene	3.44	6.13		mg/kg dry	2.41	111%	21 - 130	9031032	NSC0500-01	03/13/09 19:51
Pyrene	0.354	2.44		mg/kg dry	2.41	86%	24 - 133	9031032	NSC0500-01	03/13/09 19:51
<i>Surrogate: Terphenyl-d14</i>		1.54		mg/kg dry	2.41	64%	26 - 128	9031032	NSC0500-01	03/13/09 19:51
<i>Surrogate: 2-Fluorobiphenyl</i>		1.88		mg/kg dry	2.41	78%	19 - 109	9031032	NSC0500-01	03/13/09 19:51
<i>Surrogate: Nitrobenzene-d5</i>		1.76		mg/kg dry	2.41	73%	22 - 104	9031032	NSC0500-01	03/13/09 19:51

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**  
**Matrix Spike Dup**

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>												
<b>9030971-MSD1</b>												
Benzene	ND	2.48		mg/kg dry	2.99	83%	33 - 146	0.3	43	9030971	NSC0500-07RE	03/07/09 03:30
											1	
Ethylbenzene	0.240	2.74		mg/kg dry	2.99	84%	16 - 160	3	48	9030971	NSC0500-07RE	03/07/09 03:30
											1	
Naphthalene	4.45	6.23		mg/kg dry	2.99	60%	10 - 151	3	50	9030971	NSC0500-07RE	03/07/09 03:30
											1	
Toluene	ND	2.39		mg/kg dry	2.99	80%	30 - 145	4	44	9030971	NSC0500-07RE	03/07/09 03:30
											1	
Xylenes, total	0.155	7.71		mg/kg dry	8.98	84%	16 - 159	2	48	9030971	NSC0500-07RE	03/07/09 03:30
											1	
Surrogate: 1,2-Dichloroethane-d4		49.1		ug/kg	50.0	98%	41 - 150			9030971	NSC0500-07RE	03/07/09 03:30
											1	
Surrogate: Dibromofluoromethane		49.8		ug/kg	50.0	100%	55 - 139			9030971	NSC0500-07RE	03/07/09 03:30
											1	
Surrogate: Toluene-d8		48.6		ug/kg	50.0	97%	57 - 148			9030971	NSC0500-07RE	03/07/09 03:30
											1	
Surrogate: 4-Bromofluorobenzene		49.6		ug/kg	50.0	99%	58 - 150			9030971	NSC0500-07RE	03/07/09 03:30
											1	
<b>9031418-MSD1</b>												
Benzene	ND	1.97		mg/kg wet	2.08	95%	33 - 146	1	43	9031418	NSB2383-22RE	03/09/09 22:25
											2	
Ethylbenzene	ND	1.99		mg/kg wet	2.08	96%	16 - 160	2	48	9031418	NSB2383-22RE	03/09/09 22:25
											2	
Naphthalene	ND	2.32		mg/kg wet	2.08	112%	10 - 151	3	50	9031418	NSB2383-22RE	03/09/09 22:25
											2	
Toluene	ND	1.85		mg/kg wet	2.08	89%	30 - 145	2	44	9031418	NSB2383-22RE	03/09/09 22:25
											2	
Xylenes, total	ND	6.11		mg/kg wet	6.24	98%	16 - 159	1	48	9031418	NSB2383-22RE	03/09/09 22:25
											2	
Surrogate: 1,2-Dichloroethane-d4		52.6		ug/kg	50.0	105%	41 - 150			9031418	NSB2383-22RE	03/09/09 22:25
											2	
Surrogate: Dibromofluoromethane		52.0		ug/kg	50.0	104%	55 - 139			9031418	NSB2383-22RE	03/09/09 22:25
											2	
Surrogate: Toluene-d8		48.2		ug/kg	50.0	96%	57 - 148			9031418	NSB2383-22RE	03/09/09 22:25
											2	
Surrogate: 4-Bromofluorobenzene		48.2		ug/kg	50.0	96%	58 - 150			9031418	NSB2383-22RE	03/09/09 22:25
											2	
<b>9031419-MSD1</b>												
Benzene	ND	2.98		mg/kg dry	2.49	120%	33 - 146	1	43	9031419	NSC0500-04RE	03/11/09 00:42
											1	
Ethylbenzene	0.509	3.31		mg/kg dry	2.49	112%	16 - 160	3	48	9031419	NSC0500-04RE	03/11/09 00:42
											1	
Naphthalene	5.32	8.13		mg/kg dry	2.49	113%	10 - 151	2	50	9031419	NSC0500-04RE	03/11/09 00:42
											1	
Toluene	ND	2.64		mg/kg dry	2.49	106%	30 - 145	3	44	9031419	NSC0500-04RE	03/11/09 00:42
											1	
Xylenes, total	ND	8.53		mg/kg dry	7.48	114%	16 - 159	3	48	9031419	NSC0500-04RE	03/11/09 00:42
											1	

Client EEG - Env. Enterprise Group (2449)  
 10179 Highway 78  
 Ladson, SC 29456  
 Attn Tom McElwee

Work Order: NSC0500  
 Project Name: Laurel Bay Housing Project  
 Project Number: [none]  
 Received: 03/06/09 08:15

**PROJECT QUALITY CONTROL DATA**  
**Matrix Spike Dup - Cont.**

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
<b>Selected Volatile Organic Compounds by EPA Method 8260B</b>												
<b>9031419-MSD1</b>												
<i>Surrogate: 1,2-Dichloroethane-d4</i>		52.3		ug/kg	50.0	105%	41 - 150			9031419	NSC0500-04RE 1	03/11/09 00:42
<i>Surrogate: Dibromofluoromethane</i>		50.3		ug/kg	50.0	101%	55 - 139			9031419	NSC0500-04RE 1	03/11/09 00:42
<i>Surrogate: Toluene-d8</i>		48.7		ug/kg	50.0	97%	57 - 148			9031419	NSC0500-04RE 1	03/11/09 00:42
<i>Surrogate: 4-Bromofluorobenzene</i>		52.6		ug/kg	50.0	105%	58 - 150			9031419	NSC0500-04RE 1	03/11/09 00:42
<b>Polyaromatic Hydrocarbons by EPA 8270C</b>												
<b>9031032-MSD1</b>												
Acenaphthene	0.710	2.40		mg/kg dry	2.39	71%	28 - 117	6	33	9031032	NSC0500-01	03/13/09 20:13
Acenaphthylene	ND	2.11		mg/kg dry	2.39	88%	33 - 113	2	38	9031032	NSC0500-01	03/13/09 20:13
Anthracene	0.327	2.36		mg/kg dry	2.39	85%	31 - 131	13	32	9031032	NSC0500-01	03/13/09 20:13
Benzo (a) anthracene	ND	1.98		mg/kg dry	2.39	83%	29 - 124	4	26	9031032	NSC0500-01	03/13/09 20:13
Benzo (a) pyrene	ND	2.05		mg/kg dry	2.39	86%	30 - 127	4	31	9031032	NSC0500-01	03/13/09 20:13
Benzo (b) fluoranthene	ND	2.03		mg/kg dry	2.39	85%	26 - 128	11	37	9031032	NSC0500-01	03/13/09 20:13
Benzo (g,h,i) perylene	ND	1.86		mg/kg dry	2.39	78%	21 - 122	4	28	9031032	NSC0500-01	03/13/09 20:13
Benzo (k) fluoranthene	ND	1.97		mg/kg dry	2.39	82%	20 - 130	5	35	9031032	NSC0500-01	03/13/09 20:13
Chrysene	ND	1.87		mg/kg dry	2.39	78%	30 - 119	6	31	9031032	NSC0500-01	03/13/09 20:13
Dibenz (a,h) anthracene	ND	1.90		mg/kg dry	2.39	79%	27 - 122	5	32	9031032	NSC0500-01	03/13/09 20:13
Fluoranthene	0.130	2.21		mg/kg dry	2.39	87%	23 - 132	11	36	9031032	NSC0500-01	03/13/09 20:13
Fluorene	1.59	3.17		mg/kg dry	2.39	66%	38 - 110	19	35	9031032	NSC0500-01	03/13/09 20:13
Indeno (1,2,3-cd) pyrene	ND	1.92		mg/kg dry	2.39	80%	24 - 122	2	28	9031032	NSC0500-01	03/13/09 20:13
Naphthalene	0.662	2.03		mg/kg dry	2.39	57%	14 - 117	10	34	9031032	NSC0500-01	03/13/09 20:13
Phenanthrene	3.44	4.79		mg/kg dry	2.39	56%	21 - 130	25	33	9031032	NSC0500-01	03/13/09 20:13
Pyrene	0.354	2.35		mg/kg dry	2.39	83%	24 - 133	4	36	9031032	NSC0500-01	03/13/09 20:13
<i>Surrogate: Terphenyl-d14</i>		1.49		mg/kg dry	2.39	62%	26 - 128			9031032	NSC0500-01	03/13/09 20:13
<i>Surrogate: 2-Fluorobiphenyl</i>		1.61		mg/kg dry	2.39	67%	19 - 109			9031032	NSC0500-01	03/13/09 20:13
<i>Surrogate: Nitrobenzene-d5</i>		1.52		mg/kg dry	2.39	64%	22 - 104			9031032	NSC0500-01	03/13/09 20:13

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456

Work Order: NSC0500  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 03/06/09 08:15

Attn Tom McElwee

## CERTIFICATION SUMMARY

### TestAmerica Nashville

Method	Matrix	AIHA	Nelac	South Carolina
SW846 8260B	Soil	N/A	X	X
SW846 8270C	Soil	N/A	X	X
SW-846	Soil			

Client EEG - Env. Enterprise Group (2449)  
10179 Highway 78  
Ladson, SC 29456

Work Order: NSC0500  
Project Name: Laurel Bay Housing Project  
Project Number: [none]  
Received: 03/06/09 08:15

Attn Tom McElwee

## DATA QUALIFIERS AND DEFINITIONS

**M7** The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).  
**ZX** Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.  
**ND** Not detected at the reporting limit (or method detection limit if shown)

## METHOD MODIFICATION NOTES

# TestAmerica

Nashville Division  
 2960 Foster Creighton  
 Nashville, TN 37204

Phone: 615-726-0177  
 Toll Free: 800-765-0980  
 Fax: 615-726-3404

Client Name/Account #: EEG # 2448

Address: 10179 Highway 78  
 City/State/Zip: Ladson, SC 29456

Project Manager: Tom McElwee email: mcelwee@eeginc.net

Telephone Number: 843.412.2097

Sampler Name: (Print) *Pratt Shroyer*

Sampler Signature: *[Signature]*

NSC0500  
 03/20/09 23 59

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? Yes  No   
 Enforcement Action? Yes  No

Site State: SC  
 PO#: 0829  
 TA Quote #:  
 Project ID: Laurel Bay Housing Project  
 Project #:

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Preservative					Matrix					Analyze For	RUSH TAT (Pre-Schedule)	
							HCl (Blue Label)	NaOH (Orange Label)	H <sub>2</sub> SO <sub>4</sub> Plastic (Yellow Label)	H <sub>2</sub> SO <sub>4</sub> Glass (Yellow Label)	None (Black Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge			Soil
120 BANYAN - 3	3/2/09	0945	5	X			2	1	1	1	1	1	1	1	1	1	1	PAH - 8270C	
120 BANYAN - 2	3/2/09	1445	5	X			2	1	1	1	1	1	1	1	1	1	1	PAH - 8270C	
120 BANYAN - 1	3/3/09	1100	5	X			2	1	1	1	1	1	1	1	1	1	1	PAH - 8270C	
124 BANYAN - 2	3/4/09	0940	5	X			2	1	1	1	1	1	1	1	1	1	1	PAH - 8270C	
124 BANYAN - 1	3/4/09	0945	5	X			2	1	1	1	1	1	1	1	1	1	1	PAH - 8270C	
132 BANYAN - 2	3/5/09	0940	5	X			2	1	1	1	1	1	1	1	1	1	1	PAH - 8270C	
132 BANYAN - 1	3/5/09	1315	5	X			2	1	1	1	1	1	1	1	1	1	1	PAH - 8270C	

Special Instructions:

Relinquished by: *[Signature]* Date: 3/5/09  
 Received by: Fredex Time: 8:00 AM  
 Relinquished by: *[Signature]* Date: 3/6  
 Received by: TestAmerica Time: 8:15

Method of Shipment: FEDEX

Laboratory Comments:  
 Temperature Upon Receipt: 0-6°C  
 VOCs Free of Headspace? Y

ATTACHMENT A



# UST Certificate of Disposal

## CONTRACTOR

Small Business Group, Inc.  
10179 Highway 78  
Ladson, SC 29456

TEL (843) 879-0403  
FAX (843) 879-0401

## TANK ID & LOCATION

UST 120Banyan-1, 120 Banyan St, Laurel Bay Housing Area,  
MCAS Beaufort, S.C.

---

## DISPOSAL LOCATION

Coastal Auto Salvage Co., Inc.  
130 Laurel Bay Road  
Beaufort, S.C. 29906

### TYPE OF TANK

### SIZE (GAL)

Steel

280

---

## CLEANING/DISPOSAL METHOD

The tank and piping were unearthed, cut open, cleaned with a pressure washer, cut into sections, and recycled.

## DISPOSAL CERTIFICATION

I certify that the above tank, piping and equipment has been properly cleaned and disposed of.

T. L. VeDee

(Name)

3/31/09

(Date)

# UST Certificate of Disposal

## CONTRACTOR

Small Business Group, Inc.  
10179 Highway 78  
Ladson, SC 29456

TEL (843) 879-0403  
FAX (843) 879-0401

## TANK ID & LOCATION

UST 120Banyan-2, 120 Banyan St, Laurel Bay Housing Area,  
MCAS Beaufort, S.C.

---

## DISPOSAL LOCATION

Coastal Auto Salvage Co., Inc.  
130 Laurel Bay Road  
Beaufort, S.C. 29906

### TYPE OF TANK

Steel

### SIZE (GAL)

280

---

## CLEANING/DISPOSAL METHOD

The tank and piping were unearthed, cut open, cleaned with a pressure washer, cut into sections, and recycled.

## DISPOSAL CERTIFICATION

I certify that the above tank, piping and equipment has been properly cleaned and disposed of.

T. L. McQueen , 3/31/09  
(Name) (Date)

# UST Certificate of Disposal

## CONTRACTOR

Small Business Group, Inc.  
10179 Highway 78  
Ladson, SC 29456

TEL (843) 879-0403  
FAX (843) 879-0401

## TANK ID & LOCATION

UST 120Banyan-3, 120 Banyan St, Laurel Bay Housing Area,  
MCAS Beaufort, S.C.

---

## DISPOSAL LOCATION

Coastal Auto Salvage Co., Inc.  
130 Laurel Bay Road  
Beaufort, S.C. 29906

### TYPE OF TANK

### SIZE (GAL)

Steel

280

---

## CLEANING/DISPOSAL METHOD

The tank and piping were unearthed, cut open, cleaned with a pressure washer, cut into sections, and recycled.

## DISPOSAL CERTIFICATION

I certify that the above tank, piping and equipment has been properly cleaned and disposed of.

T. R. McQueen

(Name)

3/31/09

(Date)

**Appendix C**  
**Laboratory Analytical Report - Groundwater**

# Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: OG18009-012
Description: BEALB120TW01WG20130718	Matrix: Aqueous
Date Sampled: 07/18/2013 1450	
Date Received: 07/19/2013	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	07/27/2013 0030	RGB		25963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	ND		0.50	0.25	0.027	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	0.25	0.17	ug/L	1
Naphthalene	91-20-3	8260B	5.3		0.50	0.25	0.12	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	0.25	0.17	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	0.25	0.17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-120
Toluene-d8		105	85-120
Bromofluorobenzene		102	75-120
Dibromofluoromethane		102	85-115

PQL = Practical quantitation limit      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      H = Out of holding time      Q = Surrogate failure  
 ND = Not detected at or above the MDL      J = Estimated result < PQL and ≥ MDL      P = The RPD between two GC columns exceeds 40%      N = Recovery is out of criteria      L = LCS/LCSD failure  
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"      S = MS/MSD failure

Shealy Environmental Services, Inc.  
 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Level 1 Report v2.1

# Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants	Laboratory ID: OG18009-012
Description: BEALB120TW01WG20130718	Matrix: Aqueous
Date Sampled: 07/18/2013 1450	
Date Received: 07/19/2013	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	07/22/2013 1618	JRG	07/19/2013 1544	25460

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D	ND		0.22	0.11	0.088	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.22	0.11	0.094	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.22	0.11	0.099	ug/L	1
Chrysene	218-01-9	8270D	ND		0.22	0.11	0.058	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.22	0.11	0.062	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		80	50-110
Nitrobenzene-d5		78	40-110
Terphenyl-d14		58	50-135

PQL = Practical quantitation limit      B = Detected in the method blank      E = Quantitation of compound exceeded the calibration range      H = Out of holding time      Q = Surrogate failure  
 ND = Not detected at or above the MDL      J = Estimated result < PQL and ≥ MDL      P = The RPD between two GC columns exceeds 40%      N = Recovery is out of criteria      L = LCS/LCSD failure  
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"      S = MS/MSD failure

**Appendix D**  
**Regulatory Correspondence**



C. Earl Hunter, Commissioner

*Promoting and protecting the health of the public and the environment.*

May 12, 2009

Commanding Officer  
ATTN: S-4 NREAO (Craig Ehde)  
MCAS  
PO Box 55001  
Beaufort, SC 29904-5001

Re: MCAS – Laurel Bay Housing –120 Banyan St.  
**Site ID # 04176**  
UST Closure Report received 24 April 2009  
Beaufort County

Dear Mr. Ehde:

The purpose of this letter is to verify a release of fuel oil at the referenced residence. According to information received by the Department, the source of the release is from past onsite use of fuel oil USTs. To date, initial activities by the facility have included tank removal and soil sampling. Based on the information contained in the closure report, a potential violation of the South Carolina Pollution Control Act has occurred in that there has been an unauthorized release of petroleum to the environment.

Additional assessment activities are required for this site. Specifically the Department requests that a groundwater sample be collected from this site. Please note, the Department approved a groundwater sampling proposal for Laurel Bay submitted by MCAS under separate cover dated 16 June 2008.

Should you have any questions, please contact me at 803-896-4179 or [cookejt@dhec.sc.gov](mailto:cookejt@dhec.sc.gov).

Sincerely,

Jan T. Cooke, Hydrogeologist  
AST Petroleum Restoration & Site Environmental Investigations Section  
Division of Site Assessment, Remediation & Revitalization  
Bureau of Land and Waste Management

cc: Region 8 District EQC







Catherine E. Heigel, Director

*Promoting and protecting the health of the public and the environment*

Division of Waste Management  
Bureau of Land and Waste Management

August 6, 2015

Commanding Officer  
Attention: NREAO Mr. William A. Drawdy  
United State Marine Corps Air Station  
Post Office Box 55001  
Beaufort, SC 29904-5001

RE: Approval Response to Comments and Concurrence with Final Initial Groundwater Investigation Report-July 2013  
Laurel Bay Military Housing Area Multiple Properties  
Dated June 2015

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received groundwater data in the above referenced Groundwater Investigation Report for the addresses attached. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent wells should be installed at the 10 stated addresses. For the remaining 25 addresses, there is no indication of contamination on the property and therefore no further investigation is required at this time.

Please note that the Department's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, the Department retains the right to request further investigation if deemed necessary.

If you have any questions, please contact me at [petruslb@dhec.sc.gov](mailto:petruslb@dhec.sc.gov) or 803-898-0294.

Sincerely,

Laurel Petrus  
RCRA Federal Facilities Section

*Attachment: Specific Property Recommendations*

Cc: Russell Berry, EQC Region 8 (via email)  
Shawn Dolan, Resolution Consultants (via email)  
Bryan Beck, NAVFAC MIDATLANTIC (via email)  
Craig Ehde (via email)

Attachment to: Petrus to Drawdy  
 Subject: Draft Final Initial Groundwater Investigation Report-July 2013  
 Specific Property Recommendations  
 Dated August 6, 2015

**Draft Final Initial Groundwater Investigation Report for (35 addresses/38 tanks)**

<b>Permanent Monitoring Well Investigation recommendation (10 addresses/11 tanks)</b>	
119 Banyan	156 Laurel Bay
128 Banyan	1033 Foxglove
132 Banyan	1055 Gardenia
135 Birch	1059 Gardenia
148 Laurel Bay	1168 Jasmine
<b>No Further Action recommendation (25 addresses/27 tanks):</b>	
115 Banyan	386 Acorn
116 Banyan	395 Acorn
120 Banyan	399 Acorn
124 Banyan	1021 Foxglove
125 Banyan	1027 Foxglove
136 Birch	1030 Foxglove
140 Laurel Bay	1032 Foxglove
144 Laurel Bay	1053 Gardenia
152 Laurel Bay	1058 Gardenia
160 Cypress	1061 Gardenia
263 Beech	1166 Jasmine
269 Birch	1169 Jasmine
295 Birch	