SUMMARY REPORT
879 WEST LAUREL BAY BOULEVARD (FORMERLY 144 WEST LAUREL BAY
BOULEVARD)
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 SUMMARY REPORT
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Prepared by:



**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 879 West Laurel Bay Boulevard (Formerly 144 West Laurel Bay Boulevard). 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



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, February 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* 



*Division* (SCDHEC, February 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, April 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 879 West Laurel Bay Boulevard (Formerly 144 West Laurel Bay Boulevard). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 144 Laurel Bay Boulevard* (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

On March 18 2009, a single 280 gallon heating oil UST was removed from the front landscaped bed area adjacent to the driveway at 879 West Laurel Bay Boulevard (Formerly 144 West Laurel Bay Boulevard). The former UST location is indicated on Figures 2 and 3 of the UST Assessment



Report (Appendix B). The UST was 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 depth to the base of the UST was 5'7" bgs and a single soil sample was collected from that depth. The sample was collected from the fill port side of the former UST to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of the 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 879 West Laurel Bay Boulevard (Formerly 144 West Laurel Bay Boulevard) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated May 18, 2009, SCDHEC requested an IGWA for 879 West Laurel Bay Boulevard (Formerly 144 West Laurel Bay Boulevard) 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 22, 2013, a temporary monitoring well was installed at 879 West Laurel Bay Boulevard (Formerly 144 West Laurel Bay Boulevard), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated May 27, 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 location is indicated on 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, May 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 879 West Laurel Bay Boulevard (Formerly 144 West Laurel Bay Boulevard) 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 879 West Laurel Bay Boulevard (Formerly 144 West Laurel Bay Boulevard). 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, 2009. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 144 Laurel Bay Boulevard, 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*, May 2016.

### **Tables**



### Table 1

### Laboratory Analytical Results - Soil 879 West Laurel Bay Blvd (Formerly 144 West Laurel Bay Blvd)

### Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 03/18/09
Volatile Organic Compounds Analyz	ed by EPA Method 8260B (mg/kg)	
Benzene	0.003	ND
Ethylbenzene	1.15	ND
Naphthalene	0.036	ND
Toluene	0.627	ND
Xylenes, Total	13.01	ND
Semivolatile Organic Compounds Ar	alyzed by EPA Method 8270D (mg/kg)	
Benzo(a)anthracene	0.66	0.0973
Benzo(b)fluoranthene	0.66	0.170
Benzo(k)fluoranthene	0.66	0.0994
Chrysene	0.66	0.166
Dibenz(a,h)anthracene	0.66	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 879 West Laurel Bay Blvd (Formerly 144 West Laurel Bay Blvd)

### Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>	Results Sample Collected 07/23/13
Volatile Organic Compounds Analyzed	by EPA Method 8260B (	μg/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	0.17
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds Ana	lyzed by EPA Method 827	70D (μg/L)	
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 1x10<sup>-6</sup>, 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

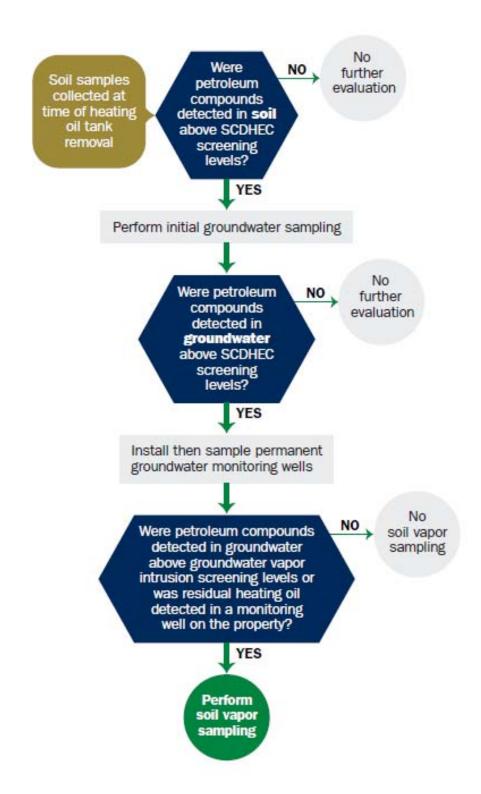
SCDHEC - South Carolina Department Of Health and Environmental Control

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



# South Carolina Department of Health and Environmental Control (SCDHEC)

# **Underground Storage Tank (UST) Assessment Report**

**Date Received** 

State Use Only

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

04193

RECEIVED

APR 2 4 2009

SITE ASSESSMENT,

# 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 Craig Ehde 843 228-7317 Area Code Telephone Number Contact Person

## II. SITE IDENTIFICATION AND LOCATION

D	
Permit I.D. #	
	ry Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Company	Site Identifier
144 Laurel Bay Bl	vd, Laurel Bay Military Housing Area
Street Address or State Roa	d (as applicable)
Beaufort,	Beaufort
City	County

Attachment 2

# III. INSURANCE INFORMATION

The state of the s
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

Product(ex. Gas, Kerosene)	Bay Blvd Heating oil 280 gal  Late 1950s Steel Mid 1980s
Product(ex. Gas, Kerosene)	280 gal  Late 1950s  Steel  Mid 1980s
Capacity(ex. 1k, 2k)	Late 1950s Steel Mid 1980s
Age	Steel Mid 1980s
Construction Material(ex. Steel, FRP)  Month/Year of Last Use	Mid 1980s
Month/Year of Last Use	
Month/Year of Last Use	
Depth (ft.) To Base of Tank	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Spill Prevention Equipment Y/N	5'7"
Diverfill Prevention Equipment Y/N  Method of Closure Removed/Filled  Date Tanks Removed/Filled  Visible Corrosion or Pitting Y/N  Visible Holes Y/N  Method of disposal for any USTs removed from the gust 144 Laurel Bay Blvd. was removed.	No
Method of Closure Removed/Filled  Pate Tanks Removed/Filled  Tisible Corrosion or Pitting Y/N  Tisible Holes Y/N  Method of disposal for any USTs removed from the gust 144 Laurel Bay Blvd. was removed	No
ate Tanks Removed/Filledisible Corrosion or Pitting Y/Nisible Holes Y/N	Removed
Oate Tanks Removed/Filled  /isible Corrosion or Pitting Y/N  /isible Holes Y/N  Method of disposal for any USTs removed from the gust 144 Laurel Bay Blvd. was remove	3/18/09
isible Corrosion of Pitting 17/Nisible Holes Y/Nisible Holes Y/N	3/18/09
Method of disposal for any USTs removed from the g UST 144 Laurel Bay Blvd. was remove	Yes
UST 144 Laurel Bay Blvd. was remove	Yes
	rea from one ground, ereanea
Method of disposal for any liquid petroleum, sludges,	ved from the ground, cleaned
disposal manifests) Contaminated water was pumped from	-, (

# VII. PIPING INFORMATION

		Inda names			
		Bay Blvd			
Construction	Material(ex. Steel, FRP)	Steel			
C SHOW WOULDER		/Copper			<u> </u>
Distance from	n UST to Dispenser	N/A			
Number of D	ispensers				
		N/A			
Type of Syst	em Pressure or Suction	Suction			
Was Piping R	Removed from the Ground? Y/N				
Visible Com	ogion on Ditting V/N	No*			
VISIBLE COIT	osion or Pitting Y/N	Yes			
Visible Hole	s Y/N				
VISIBIC TIOIC	1/1/	No			
	•••••			<del> </del>	1
If any corros	ion, pitting, or holes were observed				
If any corros	ion, pitting, or holes were observed ion and pitting were for	d, describe the location ar and on the surfac	e of the	steel j	pipe.
If any corros  Corros:  *Steel p:	ion, pitting, or holes were observed ion and pitting were for the following was removed. Coppe	d, describe the location ar and on the surfac	e of the	steel j	pipe.
If any corros	ion, pitting, or holes were observed ion and pitting were for the following was removed. Coppe	d, describe the location are und on the surface	e of the	steel j	pipe.
If any corros  Corros:  *Steel p: excavat:	ion, pitting, or holes were observed ion and pitting were for ping was removed. Coppe	d, describe the location are und on the surface er piping was cape	e of the	steel p	of th
If any corros  Corros:  *Steel p: excavat:	ion, pitting, or holes were observed ion and pitting were for ping was removed. Coppetion.	d, describe the location are und on the surface er piping was cape cape cape cape with the constructed of second cape cape cape cape cape cape cape cape	e of the ped at the  STORY  ingle wal	steel phe edge	of th
*Steel p: excavat: The USTs and form	ion, pitting, or holes were observed ion and pitting were for ping was removed. Copperion.  VIII. BRIEF SITE DESCENT AT THE PROPERTY OF THE PR	d, describe the location are und on the surface er piping was cape to the constructed of second for heating. The	e of the ped at the STORY ingle walks	steel phe edge	of th
*Steel p: excavat: The USTs and form	ion, pitting, or holes were observed ion and pitting were for a ping was removed. Coppetion.  VIII. BRIEF SITE DESCRIPTION AND ADDRESS AT THE PERSON AND ADDRESS ARE METLY CONTAINED FUEL OIL	d, describe the location are und on the surface er piping was cape to the constructed of second for heating. The	e of the ped at the STORY ingle walks	steel phe edge	of th
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*Steel p: excavat: The USTs and form	ion, pitting, or holes were observed ion and pitting were for a ping was removed. Coppetion.  VIII. BRIEF SITE DESCRIPTION AND ADDRESS AT THE PERSON AND ADDRESS ARE METLY CONTAINED FUEL OIL	d, describe the location are und on the surface er piping was cape to the constructed of second for heating. The	e of the ped at the STORY ingle walks	steel phe edge	of t

# IX. SITE CONDITIONS

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

# X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 96012001

B.

В.			<del></del>		<u> </u>	· !		<del></del> 1
	Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	by	OVA#
144	Laurel Bay Blvd	Excav at Fill end	Soil	Clay	5'7"	3/18/09 1030 hrs	S. Pratt	
	7							
	7							
	8							
	9							
	10		-					
	11							
	12			_				
	13							
	14							
	15							
	16							
	17							
	18							
	19							
	20							

<sup>\* =</sup> Depth Below the Surrounding Land Surface

# XI. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect <u>and</u> 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.

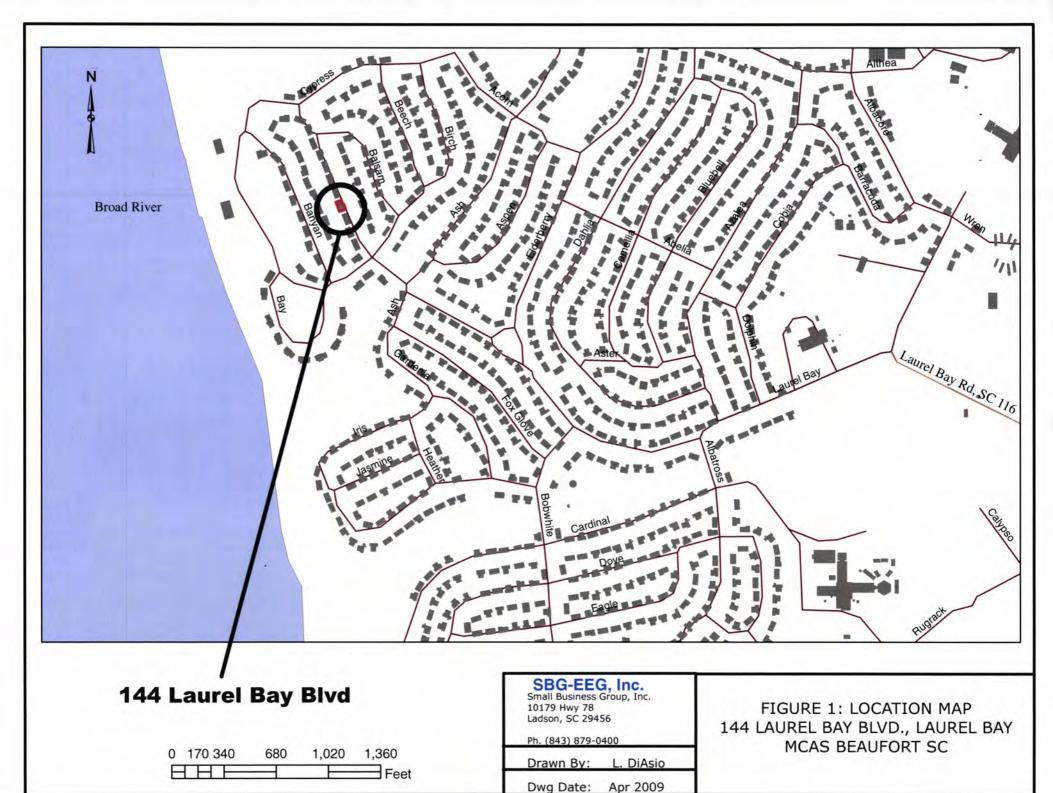
# XII. RECEPTORS

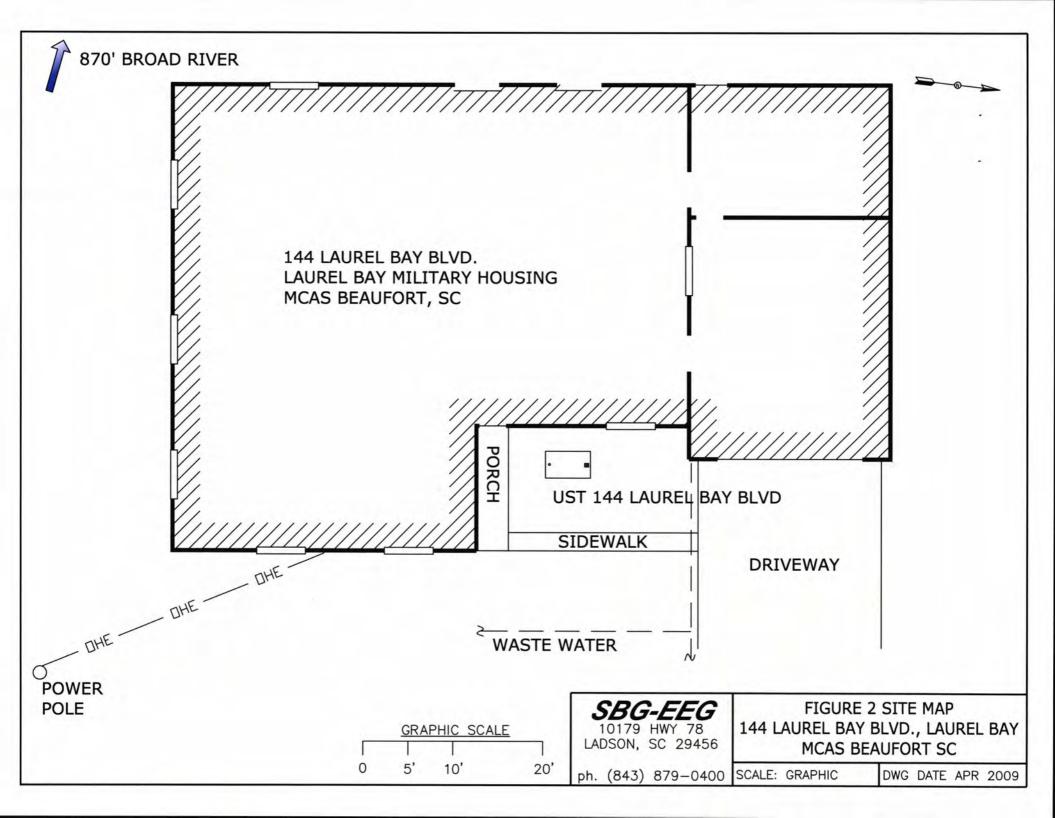
		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?	х	
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		Х
	If yes, indicate type of well, distance, and direction on site map.		
C.	Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?		х
	If yes, indicate type of structure, distance, and direction on site map.		
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  If yes, indicate the type of utility, distance, and direction on the site map.	X*	
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?		Х
	If yes, indicate the area of contaminated soil on the site map.		

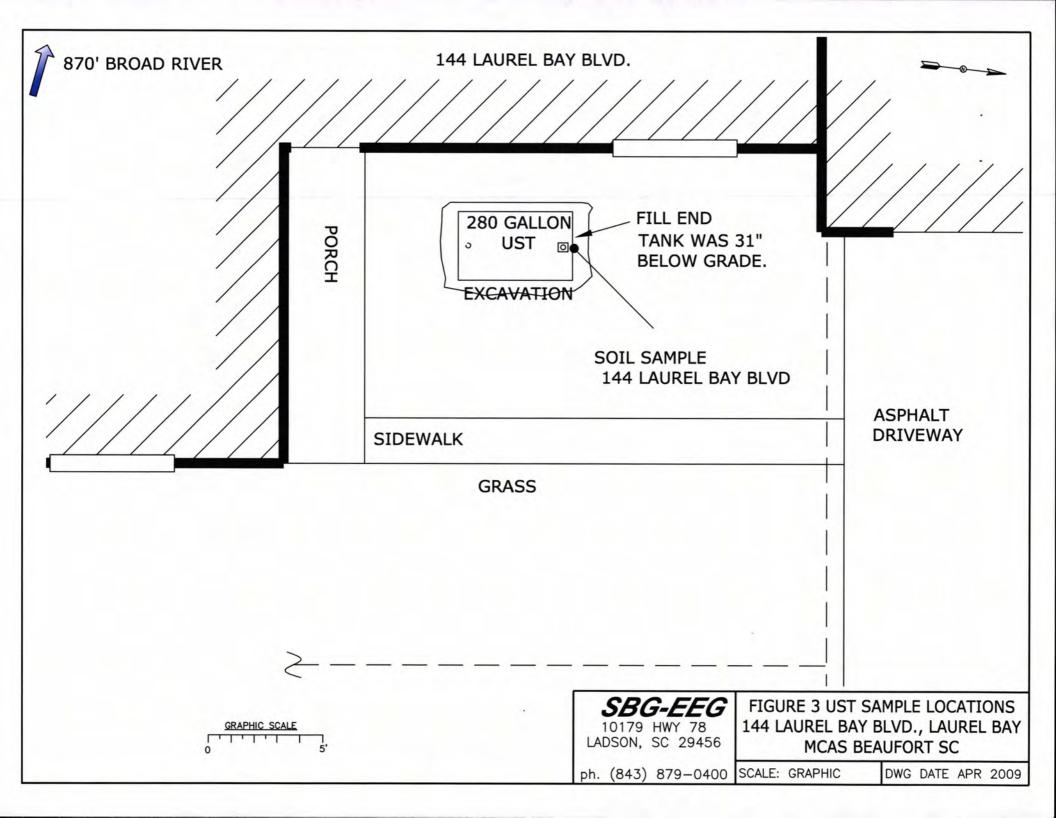
## XIII. SITE MAP

You must supply a <u>scaled</u> 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)









Picture 1: 144 Laurel Bay Blvd site.



Picture 2: UST 144LaurelBayBlvd being removed from the 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.

	T			<u> </u>	1	T	1	T
CoC	144 La	urel B	ay BIV	1.				
Benzene	ND							
Toluene	ND							
Ethylbenzene	ND							
Xylenes	ND							
Naphthalene	ND							
Benzo (a) anthracene	0.0973	3 mg/kg						
Benzo (b) fluoranthene	0.170	mg/kg					5	
Benzo (k) fluoranthene	0.0994	mg/kg						
Chrysene	0.166	mg/kg						
Dibenz (a, h) anthracene	ND							
TPH (EPA 3550)								
<u> </u>	<u> </u>						<u> </u>	
СоС	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
СоС	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
CoC Benzene	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
CoC Benzene Toluene	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
CoC Benzene Toluene Ethylbenzene	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
CoC Benzene Toluene Ethylbenzene Xylenes	SB-9	SB-10	SB-11		SB-13	SB-14	SB-15	SB-16
CoC Benzene Toluene Ethylbenzene Xylenes Naphthalene	SB-9	SB-10	SB-11		SB-13	SB-14	SB-15	SB-16
CoC Benzene Toluene Ethylbenzene Xylenes Naphthalene Benzo (a) anthracene	SB-9	SB-10	SB-11		SB-13	SB-14	SB-15	SB-16
CoC Benzene Toluene Ethylbenzene Xylenes Naphthalene Benzo (a) anthracene Benzo (b) fluoranthene	SB-9	SB-10	SB-11		SB-13	SB-14	SB-15	SB-16
CoC Benzene Toluene Ethylbenzene Xylenes Naphthalene Benzo (a) anthracene Benzo (b) fluoranthene Benzo (k) fluoranthene	SB-9	SB-10	SB-11		SB-13	SB-14	SB-15	SB-16

SUMMARY OF ANALYSIS RESULTS (cont'd)

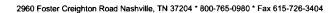
Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

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

# 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 31, 2009

5:14:39PM

Client:

EEG - Env. Enterprise Group (2449)

10179 Highway 78

Ladson, SC 29456

Attn:

Tom McElwee

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

Project Nbr: P/O Nbr:

[none] 08087

Date Received: 03/20/09

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
142 Laurel Bay Blvd.	NSC1899-01	03/16/09 09:15
140 Laurel Bay Blvd1	NSC1899-02	03/17/09 13:55
140 Laurel Bay Blvd2	NSC1899-03	03/17/09 10:25
144 Laurel Bay Blvd.	NSC1899-04	03/18/09 10:30
148 Laurel Bay Blvd.	NSC1899-05	03/19/09 10:20

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.

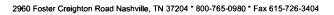
Roxarre L. Connor

This report has been electronically signed.

Report Approved By:

Roxanne Connor

Program Manager - Conventional Accounts





### THE LEADER IN ENVIRONMENTAL TESTING

Client EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

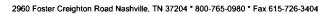
Project Number: [none]

Received:

03/20/09 08:00

### ANALYTICAL REPORT

					Dilution	Analysis		
Analyte	Result	Flag	Units	MRL	Factor	Date/Time	Method	Batch
Sample ID: NSC1899-01 (142 Lau	ırel Bay Blvd	Soil) Sam	pled: 03/16/09 0	9:15				
Polyaromatic Hydrocarbons by EPA	3270D							
Acenaphthene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Acenaphthylene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Anthracene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Benzo (a) anthracene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Benzo (a) pyrene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Benzo (b) fluoranthene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Benzo (k) fluoranthene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Chrysene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Fluoranthene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Fluorene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Naphthalene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Phenanthrene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Pyrene	ND		mg/kg dry	0.0820	1	03/23/09 22:12	SW846 8270D	9033305
Surr: Terphenyl-d14 (26-128%)	87 %					03/23/09 22:12	SW846 8270D	9033305
Surr: 2-Fluorobiphenyl (19-109%)	74 %					03/23/09 22:12	SW846 8270D	9033305
Surr: Nitrobenzene-d5 (22-104%)	67 %					03/23/09 22:12	SW846 8270D	9033305
General Chemistry Parameters								
% Dry Solids	80.4		%	0.500	1	03/26/09 08:19	SW-846	9033632
Selected Volatile Organic Compound	s by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00204	1	03/25/09 23:19	SW846 8260B	9033095
Ethylbenzene	ND		mg/kg dry	0.00204	1	03/25/09 23:19	SW846 8260B	9033095
Naphthalene	0.00608		mg/kg dry	0.00510	1	03/25/09 23:19	SW846 8260B	9033095
Toluene	ND		mg/kg dry	0.00204	1	03/25/09 23:19	SW846 8260B	9033095
Xylenes, total	ND		mg/kg dry	0.00510	1	03/25/09 23:19	SW846 8260B	9033095
Surr: 1,2-Dichloroethane-d4 (41-150%)	92 %					03/25/09 23:19	SW846 8260B	9033095
Surr: Dibromofluoromethane (55-139%)	104 %					03/25/09 23:19	SW846 8260B	9033095
Surr: Toluene-d8 (57-148%)	115 %					03/25/09 23:19	SW846 8260B	9033095
Surr: 4-Bromofluorobenzene (58-150%)	145 %					03/25/09 23:19	SW846 8260B	9033095





### THE LEADER IN ENVIRONMENTAL TESTING

Client EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

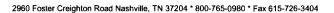
Project Number: [none]

Received:

03/20/09 08:00

### ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSC1899-02 (140 Lau	rel Bay Blvd1	- Soil) Sa	ampled: 03/17/09	13:55				
Polyaromatic Hydrocarbons by EPA 83		•	•					
Acenaphthene	ND		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Acenaphthylene	ND		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Anthracene	0.697		mg/kg dry	0.0842	l	03/23/09 22:35	SW846 8270D	9033305
Benzo (a) anthracene	0.995		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Benzo (a) pyrene	0.549		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Benzo (b) fluoranthene	0.619		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Benzo (g,h,i) perylene	0.207		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Benzo (k) fluoranthene	0.528		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Chrysene	1.18		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Dibenz (a,h) anthracene	0.0872		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Fluoranthene	2.11		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Fluorene	ND		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Indeno (1,2,3-cd) pyrene	0.216		mg/kg dry	0.0842	1	03/23/09 22:35	SW846 8270D	9033305
Naphthalene	12.3		mg/kg dry	0.421	5	03/24/09 12:28	SW846 8270D	9033305
Phenanthrene	9.51		mg/kg dry	0.421	5 .	03/24/09 12:28	SW846 8270D	9033305
Pyrene	2.08		mg/kg dry	0.0842	I	03/23/09 22:35	SW846 8270D	9033305
Surr: Terphenyl-d14 (26-128%)	95 %				_	03/23/09 22:35	SW846 8270D	9033305
Surr: 2-Fluorobiphenyl (19-109%)	88 %					03/23/09 22:35	SW846 8270D	9033305
Surr: Nitrobenzene-d5 (22-104%)	199 %	ZX				03/23/09 22:35	SW846 8270D	9033305
General Chemistry Parameters								
% Dry Solids	79.0		%	0.500	1	03/26/09 08:19	SW-846	9033632
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	0.0157		mg/kg dry	0.00174	1	03/26/09 00:20	SW846 8260B	9033095
Ethylbenzene	1.48		mg/kg dry	0.101	50	03/26/09 17:29	SW846 8260B	9034182
Naphthalene	14.3		mg/kg dry	0.506	100	03/27/09 14:36	SW846 8260B	9034202
Toluene	ND		mg/kg dry	0.00174	1	03/26/09 00:20	SW846 8260B	9033095
Xylenes, total	2.24		mg/kg dry	0.253	50	03/26/09 17:29	SW846 8260B	9034182
Surr: 1,2-Dichloroethane-d4 (41-150%)	89 %					03/26/09 00:20	SW846 8260B	9033095
Surr: 1,2-Dichloroethane-d4 (41-150%)	88 %					03/26/09 17:29	SW846 8260B	9034182
Surr: 1,2-Dichloroethane-d4 (41-150%)	91 %					03/27/09 14:36	SW846 8260B	9034202
Surr: Dibromofluoromethane (55-139%)	91 %					03/26/09 00:20	SW846 8260B	9033095
Surr: Dibromofluoromethane (55-139%)	93 %					03/26/09 17:29	SW846 8260B	9034182
Surr: Dibromofluoromethane (55-139%)	94 %					03/27/09 14:36	SW846 8260B	9034202
Surr: Toluene-d8 (57-148%)	154 %	ZX				03/26/09 00:20	SW846 8260B	9033095
Surr: Toluene-d8 (57-148%)	105 %					03/26/09 17:29	SW846 8260B	9034182
Surr: Toluene-d8 (57-148%)	103 %					03/27/09 14:36	SW846 8260B	9034202
Surr: 4-Bromofluorobenzene (58-150%)	136 %					03/26/09 00:20	SW846 8260B	9033095
Surr: 4-Bromofluorobenzene (58-150%)	108 %					03/26/09 17:29	SW846 8260B	9034182
Surr: 4-Bromofluorobenzene (58-150%)	108 %					03/27/09 14:36	SW846 8260B	9034202





THE LEADER IN ENVIRONMENTAL TESTING

EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456 Tom McElwee

Client

Attn

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

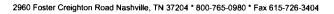
Project Number: [none]

Received:

03/20/09 08:00

### ANALYTICAL REPORT

					Dilution	Analysis		
Analyte	Result	Flag	Units	MRL	Factor	Date/Time	Method	Batch
Sample ID: NSC1899-03 (140 Laur	rel Bay Blvd2	2 - Soil) Sa	mpled: 03/17/09	10:25				
Polyaromatic Hydrocarbons by EPA 82	270D							
Acenaphthene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Acenaphthylene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Anthracene	0.540		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Benzo (a) anthracene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Benzo (a) pyrene	ND		mg/kg dry	0.0898	ı	03/23/09 22:58	SW846 8270D	9033305
Benzo (b) fluoranthene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Benzo (k) fluoranthene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Chrysene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Fluoranthene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Fluorene	2.90		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Naphthalene	8.56		mg/kg dry	0.449	5	03/24/09 12:51	SW846 8270D	9033305
Phenanthrene	8.58		mg/kg dry	0.449	5	03/24/09 12:51	SW846 8270D	9033305
Pyrene	0.698		mg/kg dry	0.0898	1	03/23/09 22:58	SW846 8270D	9033305
Surr: Terphenyl-d14 (26-128%)	83 %					03/23/09 22:58	SW846 8270D	9033305
Surr: 2-Fluorobiphenyl (19-109%)	77 %					03/23/09 22:58	SW846 8270D	9033305
Surr: Nitrobenzene-d5 (22-104%)	139 %	ZX				03/23/09 22:58	SW846 8270D	9033305
General Chemistry Parameters								
% Dry Solids	72.4		%	0.500	I	03/26/09 08:19	SW-846	9033632
Selected Volatile Organic Compounds	bv EPA Method	8260B						
Benzene	ND		mg/kg dry	0.133	50	03/26/09 18:00	SW846 8260B	9034182
Ethylbenzene	4.20		mg/kg dry	0.133	50	03/26/09 18:00	SW846 8260B	9034182
Naphthalene	31.1		mg/kg dry	3.32	500	03/27/09 15:06	SW846 8260B	9034202
Toluene	1.33		mg/kg dry	0.133	50	03/26/09 18:00	SW846 8260B	9034182
Xylenes, total	29.5		mg/kg dry	0.332	50	03/26/09 18:00	SW846 8260B	9034182
Surr: 1,2-Dichloroethane-d4 (41-150%)	89 %		ing kg ury	0.332	30	03/26/09 18:00	SW846 8260B	9034182
Surr: 1,2-Dichloroethane-d4 (41-150%)	89 %					03/27/09 15:06	SW846 8260B	9034202
Surr: Dibromofluoromethane (55-139%)	91 %					03/26/09 18:00	SW846 8260B	9034182
Surr: Dibromofluoromethane (55-139%)	96 %					03/27/09 15:06	SW846 8260B	9034202
Surr: Toluene-d8 (57-148%)	108 %					03/26/09 18:00	SW846 8260B	9034182
Surr: Toluene-d8 (57-148%)	102 %					03/27/09 15:06	SW846 8260B	9034202
Surr: 4-Bromofluorobenzene (58-150%)	107 %					03/26/09 18:00	SW846 8260B	9034182
Surr: 4-Bromofluorobenzene (58-150%)	110 %					03/27/09 15:06	SW846 8260B	9034202





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

Project Number:

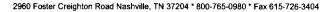
[none]

Received:

03/20/09 08:00

#### ANALYTICAL REPORT

					Dilution	Analysis		
Analyte	Result	Flag	Units	MRL	Factor	Date/Time	Method	Batch
Sample ID: NSC1899-04 (144 Lau	rel Bay Blvd	Soil) Sam	pled: 03/18/09 1	0:30				
Polyaromatic Hydrocarbons by EPA 83								
Acenaphthene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Acenaphthylene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Anthracene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Benzo (a) anthracene	0.0973		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Benzo (a) pyrene	0.0920		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Benzo (b) fluoranthene	0.170		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Benzo (k) fluoranthene	0.0994		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Chrysene	0.166		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Fluoranthene	0.161		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Fluorene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Naphthalene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Phenanthrene	ND		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Pyrene	0.228		mg/kg dry	0.0829	1	03/27/09 10:53	SW846 8270D	9033201
Surr: Terphenyl-d14 (26-128%)	69 %					03/27/09 10:53	SW846 8270D	9033201
Surr: 2-Fluorobiphenyl (19-109%)	58 %					03/27/09 10:53	SW846 8270D	9033201
Surr: Nitrobenzene-d5 (22-104%)	53 %					03/27/09 10:53	SW846 8270D	9033201
General Chemistry Parameters								
% Dry Solids	80.6		%	0.500	1	03/26/09 08:19	SW-846	9033632
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00205	1	03/25/09 23:50	SW846 8260B	9033095
Ethylbenzene	ND		mg/kg dry	0.00205	1	03/25/09 23:50	SW846 8260B	9033095
Naphthalene	ND		mg/kg dry	0.00513	1	03/25/09 23:50	SW846 8260B	9033095
Toluene	ND		mg/kg dry	0.00205	1	03/25/09 23:50	SW846 8260B	9033095
Xylenes, total	ND		mg/kg dry	0.00513	1	03/25/09 23:50	SW846 8260B	9033095
Surr: 1,2-Dichloroethane-d4 (41-150%)	90 %					03/25/09 23:50	SW846 8260B	9033095
Surr: Dibromofluoromethane (55-139%)	97 %					03/25/09 23:50	SW846 8260B	9033095
Surr: Toluene-d8 (57-148%)	108 %					03/25/09 23:50	SW846 8260B	9033095
Surr: 4-Bromofluorobenzene (58-150%)	128 %					03/25/09 23:50	SW846 8260B	9033095





Client EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSC1899

[none]

Project Name:

Laurel Bay Housing Project

Project Number: Received:

03/20/09 08:00

#### ANALYTICAL REPORT

					Dilution	Analysis	· · · · · · · · · · · · · · · · · · ·	
Analyte	Result	Flag	Units	MRL	Factor	Date/Time	Method	Batch
Sample ID: NSC1899-05 (148 Laur	rel Bay Blvd	Soil) Sam	pled: 03/19/09 1	0:20				
Polyaromatic Hydrocarbons by EPA 82	=:	ŕ	•					
Acenaphthene	0.880		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Acenaphthylene	ND		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Anthracene	ND		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Benzo (a) anthracene	0.697		mg/kg dry	0,0749	1	03/27/09 00:08	SW846 8270D	9033201
Benzo (a) pyrene	0.342		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Benzo (b) fluoranthene	0.421		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Benzo (g,h,i) perylene	0.137		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Benzo (k) fluoranthene	0.300		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Chrysene	0.749		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Dibenz (a,h) anthracene	ND		mg/kg dry	0,0749	1	03/27/09 00:08	SW846 8270D	9033201
Fluoranthene	1.27		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Fluorene	1.80		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Indeno (1,2,3-cd) pyrene	0.130		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Naphthalene	2.02		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Phenanthrene	7.51		mg/kg dry	0.749	10	03/27/09 11:14	SW846 8270D	9033201
Pyrene	2.07		mg/kg dry	0.0749	1	03/27/09 00:08	SW846 8270D	9033201
Surr: Terphenyl-d14 (26-128%)	72 %		8 8 7			03/27/09 00:08	SW846 8270D	9033201
Surr: 2-Fluorobiphenyl (19-109%)	49 %					03/27/09 00:08	SW846 8270D	9033201
Surr: Nitrobenzene-d5 (22-104%)	54 %					03/27/09 00:08	SW846 8270D	9033201
General Chemistry Parameters								
% Dry Solids	88.6		%	0.500	1	03/26/09 08:19	SW-846	9033632
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00197	1	03/26/09 01:21	SW846 8260B	9033095
Ethylbenzene	0.116		mg/kg dry	0.00197	1	03/26/09 01:21	SW846 8260B	9033095
Naphthalene	4.20		mg/kg dry	0.311	50	03/26/09 18:30	SW846 8260B	9034182
Toluene	ND		mg/kg dry	0.00197	1	03/26/09 01:21	SW846 8260B	9033095
Xylenes, total	0.229		mg/kg dry	0.00492	1	03/26/09 01:21	SW846 8260B	9033095
Surr: 1,2-Dichloroethane-d4 (41-150%)	91 %			0.00152	-	03/26/09 01:21	SW846 8260B	9033095
Surr: 1,2-Dichloroethane-d4 (41-150%)	91 %					03/26/09 18:30	SW846 8260B	9034182
Surr: Dibromofluoromethane (55-139%)	101 %					03/26/09 01:21	SW846 8260B	9033095
Surr: Dibromofluoromethane (55-139%)	96 %					03/26/09 18:30	SW846 8260B	9034182
Surr: Toluene-d8 (57-148%)	131 %					03/26/09 01:21	SW846 8260B	9033095
Surr: Toluene-d8 (57-148%)	101 %					03/26/09 18:30	SW846 8260B	9034182
Surr: 4-Bromofluorobenzene (58-150%)	675 %	ZX				03/26/09 01:21	SW846 8260B	9033095
Surr: 4-Bromofluorobenzene (58-150%)	101 %					03/26/09 18:30	SW846 8260B	9034182



2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

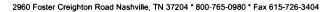
Project Number: [none]

Received:

03/20/09 08:00

#### SAMPLE EXTRACTION DATA

Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Datc	Analyst	Extraction Method
)D						
9033305	NSC1899-01	30.50	1.00	03/23/09 13:50	TEM	EPA 3550B
9033305	NSC1899-02	30.20	1.00	03/23/09 13:50	TEM	EPA 3550B
9033305	NSC1899-02RE1	30.20	1.00	03/23/09 13:50	TEM	EPA 3550B
9033305	NSC1899-03	30.93	1.00	03/23/09 13:50	TEM	EPA 3550B
9033305	NSC1899-03RE1	30.93	1.00	03/23/09 13:50	TEM	EPA 3550B
9033201	NSC1899-04	30.08	1.00	03/25/09 08:38	DMG	EPA 3550B
9033201	NSC1899-05	30.27	1.00	03/25/09 08:38	DMG	EPA 3550B
9033201	NSC1899-05RE1	30.27	1.00	03/25/09 08:38	DMG	EPA 3550B
EPA Method	8260B					
9033095	NSC1899-01	6.10	5.00	03/16/09 09:15	JRL	EPA 5035
9033095	NSC1899-02	7.27	5.00	03/17/09 13:55	JRL	EPA 5035
9034182	NSC1899-02RE1	6.25	5.00	03/17/09 13:55	JRL	EPA 5035
9034202	NSC1899-02RE2	6.25	5.00	03/17/09 13:55	JRL	EPA 5035
9033095	NSC1899-03	5.53	5.00	03/17/09 10:25	JRL	EPA 5035
9034182	NSC1899-03RE1	5.20	5.00	03/17/09 10:25	JRL	EPA 5035
9034202	NSC1899-03RE2	5.20	5.00	03/17/09 10:25	JRL	EPA 5035
9033095	NSC1899-04	6.05	5.00	03/18/09 10:30	JRL	EPA 5035
9033095	NSC1899-05	5.74	5.00	03/19/09 10:20	JRL	EPA 5035
9034182	NSC1899-05RE1	4.54	5.00	03/19/09 10:20	JRL	EPA 5035
	903305 9033305 9033305 9033305 9033305 9033201 9033201 9033201 7 EPA Method 9033095 9034182 9034202 9033095 9034182 9034202 9033095 9034182 9034202 9033095	9033305 NSC1899-02 9033305 NSC1899-02 9033305 NSC1899-02 9033305 NSC1899-03 9033305 NSC1899-03 9033201 NSC1899-04 9033201 NSC1899-05 9033201 NSC1899-05 9033201 NSC1899-05 9033201 NSC1899-05 9033201 NSC1899-05 EPA Method 8260B 9033095 NSC1899-01 9033095 NSC1899-02 9034182 NSC1899-02 9034182 NSC1899-02RE1 9034202 NSC1899-03 9034182 NSC1899-03 9034095 NSC1899-04 9033095 NSC1899-05	Batch Lab Number Extracted  9033305 NSC1899-01 30.50 9033305 NSC1899-02 30.20 9033305 NSC1899-02 30.20 9033305 NSC1899-03 30.93 9033305 NSC1899-03 30.93 9033201 NSC1899-04 30.08 9033201 NSC1899-05 30.27 9033201 NSC1899-05 30.27 9033201 NSC1899-05 1 30.27 9033201 NSC1899-05 1 30.27 9033201 NSC1899-05 1 6.10 9033095 NSC1899-01 6.10 9033095 NSC1899-02 7.27 9034182 NSC1899-02 9034202 NSC1899-02 9034202 NSC1899-03 9033095 NSC1899-03 9033095 NSC1899-03 9033095 NSC1899-04 9033095 NSC1899-05 9033095 NSC1899-05	Batch Lab Number Extracted Extracted Vol  903305 NSC1899-01 30.50 1.00 9033305 NSC1899-02 30.20 1.00 9033305 NSC1899-02RE1 30.20 1.00 9033305 NSC1899-03 30.93 1.00 9033305 NSC1899-03 30.93 1.00 9033201 NSC1899-04 30.08 1.00 9033201 NSC1899-05 30.27 1.00 9033201 NSC1899-05 30.27 1.00 9033201 NSC1899-05 30.27 1.00 9033201 NSC1899-05 30.27 5.00 903305 NSC1899-05 5.00 9033095 NSC1899-01 6.10 5.00 9033095 NSC1899-02 7.27 5.00 9034182 NSC1899-02 7.27 5.00 9034182 NSC1899-02RE1 6.25 5.00 903402 NSC1899-02RE2 6.25 5.00 903402 NSC1899-03RE1 5.20 5.00 9034202 NSC1899-03RE1 5.20 5.00 9034202 NSC1899-03RE2 5.20 5.00 9033095 NSC1899-04 6.05 5.00	Batch Lab Number Extracted Extracted Vol Date  0D  9033305 NSC1899-01 30.50 1.00 03/23/09 13:50 9033305 NSC1899-02 30.20 1.00 03/23/09 13:50 9033305 NSC1899-02RE1 30.20 1.00 03/23/09 13:50 9033305 NSC1899-03 30.93 1.00 03/23/09 13:50 9033305 NSC1899-03 30.93 1.00 03/23/09 13:50 9033305 NSC1899-03 30.93 1.00 03/23/09 13:50 9033201 NSC1899-04 30.08 1.00 03/25/09 08:38 9033201 NSC1899-05 30.27 1.00 03/25/09 08:38 9033201 NSC1899-05 5.00 03/17/09 13:55 903402 NSC1899-01 6.10 5.00 03/17/09 13:55 9034182 NSC1899-02 7.27 5.00 03/17/09 13:55 9034182 NSC1899-02RE1 6.25 5.00 03/17/09 13:55 9034202 NSC1899-03 5.53 5.00 03/17/09 13:55 9034202 NSC1899-03 5.53 5.00 03/17/09 10:25 9034182 NSC1899-03RE1 5.20 5.00 03/17/09 10:25 9034202 NSC1899-03RE2 5.20 5.00 03/17/09 10:25 9033095 NSC1899-04 6.05 5.00 03/18/09 10:30 9033095 NSC1899-05 5.74 5.00 03/19/09 10:20	Batch   Lab Number   Extracted   Extracted Vol   Datc   Analyst





10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

Project Number:

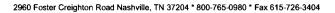
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Received:

03/20/09 08:00

## PROJECT QUALITY CONTROL DATA Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Polyaromatic Hydrocarbons by	EPA 8270D						
9033201-BLK1							
Acenaphthene	< 0.0310		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Acenaphthylene	< 0.0320		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Anthracene	< 0.0330		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Benzo (a) anthracene	< 0.0380		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Benzo (a) pyrene	< 0.0290		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Benzo (b) fluoranthene	< 0.0320		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Benzo (g,h,i) perylene	< 0.0290		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Benzo (k) fluoranthene	< 0.0290		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Chrysene	< 0.0390		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Dibenz (a,h) anthracene	< 0.0310		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Fluoranthene	< 0.0340		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Fluorene	< 0.0390		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Indeno (1,2,3-cd) pyrene	< 0.0310		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Naphthalenc	< 0.0410		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Phenanthrene	< 0.0340		mg/kg wct	9033201	9033201-BLK1	03/26/09 21:41	
Pyrene	< 0.0410		mg/kg wet	9033201	9033201-BLK1	03/26/09 21:41	
Surrogate: Terphenyl-d14	68%			9033201	9033201-BLK1	03/26/09 21:41	
Surrogate: 2-Fluorobiphenyl	62%			9033201	9033201-BLK1	03/26/09 21:41	
Surrogate: Nitrobenzene-d5	62%			9033201	9033201-BLK1	03/26/09 21:41	
9033305-BLK1							
Acenaphthene	< 0.0310		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Acenaphthylene	< 0.0320		mg/kg wct	9033305	9033305-BLK1	03/23/09 18:25	
Anthracene	< 0.0330		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Benzo (a) anthracene	< 0.0380		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Benzo (a) pyrene	<0.0290		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Benzo (b) fluoranthene	< 0.0320		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Benzo (g,h,i) perylene	< 0.0290		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Benzo (k) fluoranthene	< 0.0290		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Chrysene	< 0.0390		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Dibenz (a,h) anthracene	< 0.0310		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Fluoranthene	< 0.0340		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Fluorene	< 0.0390		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Indeno (1,2,3-cd) pyrene	< 0.0310		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Naphthalene	< 0.0410		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Phenanthrene	< 0.0340		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Pyrene	< 0.0410		mg/kg wet	9033305	9033305-BLK1	03/23/09 18:25	
Surrogate: Terphenyl-d14	100%			9033305	9033305-BLK1	03/23/09 18:25	
Surrogate: 2-Fluorobiphenyl	91%			9033305	9033305-BLK1	03/23/09 18:25	
Surrogate: Nitrobenzene-d5	93%			9033305	9033305-BLK1	03/23/09 18:25	





10179 Highway 78 Ladson, SC 29456 Tom McElwee

Client

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Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

Project Number: [none]

Received: 03/20/09 08:00

# PROJECT QUALITY CONTROL DATA Blank - Cont.

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Selected Volatile Organic Compo	ounds by EPA Method	1 8260B				
033095-BLK1						
enzenc	<0.000670		mg/kg wet	9033095	9033095-BLK1	03/25/09 20:16
nylbenzene	< 0.000670		mg/kg wet	9033095	9033095-BLK1	03/25/09 20:16
phthalene	< 0.00151		mg/kg wet	9033095	9033095-BLK1	03/25/09 20:16
uene	< 0.000670		mg/kg wet	9033095	9033095-BLK1	03/25/09 20:16
enes, total	< 0.00172		mg/kg wet	9033095	9033095-BLK1	03/25/09 20:16
ogate: 1,2-Dichloroethane-d4	104%			9033095	9033095-BLK1	03/25/09 20:16
ogate: Dibromofluoromethane	95%			9033095	9033095-BLK1	03/25/09 20:16
gate: Toluene-d8	101%			9033095	9033095-BLK1	03/25/09 20:16
ogate: 4-Bromofluorobenzene	116%			9033095	9033095-BLK1	03/25/09 20:16
1182-BLK1						
tene	< 0.000670		mg/kg wet	9034182	9034182-BLK1	03/26/09 15:11
benzene	< 0.000670		mg/kg wet	9034182	9034182-BLK1	03/26/09 15:11
thalene	<0.00151		mg/kg wet	9034182	9034182-BLK1	03/26/09 15:11
ene	< 0.000670		mg/kg wet	9034182	9034182-BLK1	03/26/09 15:11
cs, total	< 0.00172		mg/kg wet	9034182	9034182-BLK1	03/26/09 15:11
gate: 1,2-Dichloroethane-d4	95%			9034182	9034182-BLK1	03/26/09 15:11
gate: Dibromofluoromethane	101%			9034182	9034182-BLK1	03/26/09 15:11
gate: Toluene-d8	100%			9034182	9034182-BLK1	03/26/09 15:11
gate: 4-Bromofluorobenzene	112%			9034182	9034182-BLK1	03/26/09 15:11
4202-BLK1						
zene	< 0.000670		mg/kg wet	9034202	9034202-BLK1	03/27/09 13:23
benzene	< 0.000670		mg/kg wet	9034202	9034202-BLK1	03/27/09 13:23
halene	< 0.00151		mg/kg wet	9034202	9034202-BLK1	03/27/09 13:23
ne	< 0.000670		mg/kg wet	9034202	9034202-BLK1	03/27/09 13:23
cs, total	< 0.00172		mg/kg wet	9034202	9034202-BLK1	03/27/09 13:23
ate: 1,2-Dichloroethane-d4	88%			9034202	9034202-BLK1	03/27/09 13:23
gate: Dibromofluoromethane	97%			9034202	9034202-BLK1	03/27/09 13:23
gate: Toluene-d8	98%			9034202	9034202-BLK1	03/27/09 13:23
gate: 4-Bromofluorobenzene	104%			9034202	9034202-BLK1	03/27/09 13:23



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Client EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NSC1899

Project Name: Laurel Bay Housing Project

Project Number:

[none]

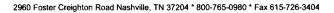
Received:

03/20/09 08:00

## PROJECT QUALITY CONTROL DATA

#### Duplicate

Analytc	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	Analyzed Datc/Time
General Chemistry Parameters 9033632-DUP1									
% Dry Solids	84.3	86.9		%	3	20	9033632	NSC1794-05	03/26/09 08:19





10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSC1899

Project Name: Laurel Bay Housing Project

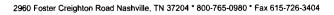
Project Number:

[none]

Received: 03/20/09 08:00

# PROJECT QUALITY CONTROL DATA LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rcc.	Target Range	Batch	Analyzed Date/Time
Polyaromatic Hydrocarbons by I	EPA 8270D							
9033201-BS1								
Acenaphthene	1.67	1.49		mg/kg wet	89%	52 - 106	9033201	03/26/09 22:02
Acenaphthylene	1.67	1.51		mg/kg wet	91%	53 - 109	9033201	03/26/09 22:02
Anthracene	1.67	1.66		mg/kg wet	100%	54 - 124	9033201	03/26/09 22:02
Benzo (a) anthracene	1.67	1.44		mg/kg wet	87%	53 - 111	9033201	03/26/09 22:02
Benzo (a) pyrene	1.67	1.61		mg/kg wet	97%	52 - 122	9033201	03/26/09 22:02
Benzo (b) fluoranthene	1.67	1.57		mg/kg wet	94%	48 - 115	9033201	03/26/09 22:02
Benzo (g,h,i) perylene	1.67	1.46		mg/kg wet	88%	46 - 114	9033201	03/26/09 22:02
Benzo (k) fluoranthene	1.67	1.46		mg/kg wet	88%	41 - 121	9033201	03/26/09 22:02
Chrysene	1.67	1.44		mg/kg wet	86%	49 - 113	9033201	03/26/09 22:02
Dibenz (a,h) anthracene	1.67	1.49		mg/kg wet	89%	47 - 117	9033201	03/26/09 22:02
Fluoranthene	1.67	1.56		mg/kg wet	94%	52 - 113	9033201	03/26/09 22:02
Fluorene	1.67	1.51		mg/kg wct	91%	54 - 107	9033201	03/26/09 22:02
Indeno (1,2,3-cd) pyrene	1.67	1.50		mg/kg wet	90%	47 - 115	9033201	03/26/09 22:02
Naphthalene	1.67	1.37		mg/kg wet	82%	34 - 107	9033201	03/26/09 22:02
Phenanthrene	1.67	1.47		mg/kg wet	88%	53 - 108	9033201	03/26/09 22:02
Pyrene	1.67	1.47		mg/kg wet	88%	54 - 113	9033201	03/26/09 22:02
Surrogate: Terphenyl-d14	1.67	1.08			65%	26 - 128	9033201	03/26/09 22:02
Surrogate: 2-Fluorobiphenyl	1.67	1.16			69%	19 - 109	9033201	03/26/09 22:02
Surrogate: Nitrobenzene-d5	1.67	1.18			70%	22 - 104	9033201	03/26/09 22:02
9033305-BS1								
Acenaphthene	1.67	1.45		mg/kg wet	87%	52 - 106	9033305	03/23/09 18:47
Acenaphthylene	1.67	1.48		mg/kg wet	89%	53 - 109	9033305	03/23/09 18:47
Anthracene	1.67	1.65		mg/kg wet	99%	54 - 124	9033305	03/23/09 18:47
Benzo (a) anthracene	1.67	1.55		mg/kg wet	93%	53 - 111	9033305	03/23/09 18:47
Benzo (a) pyrene	1.67	1.59		mg/kg wet	96%	52 - 122	9033305	03/23/09 18:47
Benzo (b) fluoranthene	1.67	1.56		mg/kg wet	94%	48 - 115	9033305	03/23/09 18:47
Benzo (g,h,i) perylene	1.67	1.48		mg/kg wet	89%	46 - 114	9033305	03/23/09 18:47
Benzo (k) fluoranthene	1.67	1.53		mg/kg wet	92%	41 - 121	9033305	03/23/09 18:47
Chrysene	1.67	1.53		mg/kg wct	92%	49 - 113	9033305	03/23/09 18:47
Dibenz (a,h) anthracene	1.67	1.53		mg/kg wct	92%	47 - 117	9033305	03/23/09 18:47
Fluoranthene	1.67	1.45		mg/kg wet	87%	52 - 113	9033305	03/23/09 18:47
Fluorene	1.67	1.46		mg/kg wet	88%	54 - 107	9033305	03/23/09 18:47
Indeno (1,2,3-ed) pyrene	1.67	1.54		mg/kg wct	93%	47 - 115	9033305	03/23/09 18:47
Naphthalene	1.67	1.22		mg/kg wct	73%	34 - 107	9033305	03/23/09 18:47
Phenanthrene	1.67	1.50		mg/kg wct	90%	53 - 108	9033305	03/23/09 18:47
Pyrene	1.67	1.66		mg/kg wct	100%	54 - 113	9033305	03/23/09 18:47
Surrogate: Terphenyl-d14	1.67	1.58			95%	26 - 128	9033305	03/23/09 18:47
Surrogate: 2-Fluorobiphenyl	1.67	1.45			87%	19 - 109	9033305	03/23/09 18:47
Surrogate: Nitrobenzene-d5	1.67	1.30			78%	22 - 104	9033305	03/23/09 18:47





EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSC1899

Project Name:

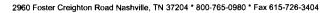
Laurel Bay Housing Project

Project Number: [none]

Received: 03/20/09 08:00

# PROJECT QUALITY CONTROL DATA LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
	nde hy DDA Matha 193							
Selected Volatile Organic Compou	nas dy EPA Metnoa 82	00B						
9033095-BS1	50.0	50.5		/1	101%	76 - 130	9033095	03/25/09 17:42
Benzene	50.0	50.5		ug/kg				
Ethylbenzene	50.0 50.0	53.4 65.2		ug/kg	107% 130%	80 - 128	9033095 9033095	03/25/09 17:42 03/25/09 17:42
Naphthalene				ug/kg		63 - 144		03/25/09 17:42
Toluene	50.0	55.1		ug/kg	110%	80 - 125	9033095	
Xylenes, total	150	160		ug/kg	107%	79 - 130	9033095	03/25/09 17:42
Surrogate: 1,2-Dichloroethane-d4	50.0	49.9			100%	41 - 150	9033095	03/25/09 17:42
Surrogate: Dibromofluoromethane	50.0	48.9			98%	55 - 139	9033095	03/25/09 17:42
Surrogate: Toluene-d8	50.0	51.2			102%	57 - 148	9033095	03/25/09 17:42
Surrogate: 4-Bromofluorobenzene	50.0	53.0			106%	58 - 150	9033095	03/25/09 17:42
9034182-BS1								
Benzene	50.0	51.4		ug/kg	103%	76 - 130	9034182	03/26/09 13:09
Ethylbenzene	50.0	55.2		ug/kg	110%	80 - 128	9034182	03/26/09 13:09
Naphthalene	50.0	60.4		ug/kg	121%	63 - 144	9034182	03/26/09 13:09
Toluene	50.0	56.0		ug/kg	112%	80 - 125	9034182	03/26/09 13:09
Xylenes, total	150	165		ug/kg	110%	79 - 130	9034182	03/26/09 13:09
Surrogate: 1,2-Dichloroethane-d4	50.0	47.9			96%	41 - 150	9034182	03/26/09 13:09
Surrogate: Dibromofluoromethane	50.0	48.3			97%	55 - 139	9034182	03/26/09 13:09
Surrogate: Toluene-d8	50.0	51.2			102%	57 - 148	9034182	03/26/09 13:09
Surrogate: 4-Bromofluorobenzene	50.0	52.4			105%	58 - 150	9034182	03/26/09 13:09
9034202-BS1								
Benzene	50.0	56.4		ug/kg	113%	76 - 130	9034202	03/27/09 11:21
Ethylbenzene	50.0	61.2		ug/kg	122%	80 - 128	9034202	03/27/09 11:21
Naphthalene	50.0	70.1		ug/kg	140%	63 - 144	9034202	03/27/09 11:21
Toluene	50.0	64.6	Ll	ug/kg	129%	80 - 125	9034202	03/27/09 11:21
Xylenes, total	150	182		ug/kg	121%	79 - 130	9034202	03/27/09 11:21
Surrogate: 1,2-Dichloroethane-d4	50.0	44.7			89%	41 - 150	9034202	03/27/09 11:21
Surrogate: Dibromofluoromethane	50.0	49.6			99%	55 - 139	9034202	03/27/09 11:21
Surrogate: Toluene-d8	50.0	50.2			100%	57 - 148	9034202	03/27/09 11:21
Surrogate: 4-Bromofluorobenzene	50.0	57.1			114%	58 - 150	9034202	03/27/09 11:21





10179 Highway 78 Ladson, SC 29456 Tom McElwee

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Work Order: NSC1899

Project Name: Laurel Bay Housing Project

Project Number:

[none]

Received: 03/20/09 08:00

# PROJECT QUALITY CONTROL DATA LCS Dup

Analyte	Orig. Val. Du	plicate Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Polyaromatic Hydrocarbons by	EPA 8270D				•						
9033305-BSD1											
Accnaphthene		1.47	mg/kg wet	1.67	88%	52 - 106	2	33	9033305		03/23/09 19:10
Accnaphthylene		1.48	mg/kg wet	1.67	89%	53 - 109	0.1	38	9033305		03/23/09 19:10
Anthracene		1.61	mg/kg wet	1.67	96%	54 - 124	3	32	9033305		03/23/09 19:10
Benzo (a) anthracene		1.52	mg/kg wct	1.67	91%	53 - 111	2	26	9033305		03/23/09 19:10
Benzo (a) pyrene		1.61	mg/kg wet	1.67	97%	52 - 122	1	31	9033305		03/23/09 19:10
Benzo (b) fluoranthene		1.59	mg/kg wet	1.67	96%	48 - 115	2	37	9033305		03/23/09 19:10
Benzo (g,h,i) perylene		1.45	mg/kg wet	1.67	87%	46 - 114	2	28	9033305		03/23/09 19:10
Benzo (k) fluoranthene		1.46	mg/kg wet	1.67	88%	41 - 121	4	35	9033305		03/23/09 19:10
Chrysene		1.53	mg/kg wet	1.67	92%	49 - 113	0.09	31	9033305		03/23/09 19:10
Dibenz (a,h) anthracene		1.50	mg/kg wet	1.67	90%	47 - 117	2	32	9033305		03/23/09 19:10
Fluoranthene		1.42	mg/kg wet	1.67	85%	52 - 113	2	36	9033305		03/23/09 19:10
Fluorene		1.46	mg/kg wet	1.67	88%	54 - 107	0.4	35	9033305		03/23/09 19:10
Indeno (1,2,3-cd) pyrene		1.51	mg/kg wet	1.67	91%	47 - 115	2	28	9033305		03/23/09 19:10
Naphthalene		1.21	mg/kg wet	1.67	73%	34 - 107	1	34	9033305		03/23/09 19:10
Phenanthrene		1.48	mg/kg wet	1.67	89%	53 - 108	1	33	9033305		03/23/09 19:10
Ругепе		1.65	mg/kg wet	1.67	99%	54 - 113	0.5	36	9033305		03/23/09 19:10
Surrogate: Terphenyl-d14		1.62	mg/kg wet	1.67	97%	26 - 128			9033305		03/23/09 19:10
Surrogate: 2-Fluorobiphenyl		1.53	mg/kg wet	1.67	92%	19 - 109			9033305		03/23/09 19:10
Surrogate: Nitrobenzene-d5		1.33	mg/kg wet	1.67	80%	22 - 104			9033305		03/23/09 19:10
Selected Volatile Organic Comp	ounds by EPA Met	hod 8260B									
9033095-BSD1											
Benzene		48.6	ug/kg	50.0	97%	76 - 130	4	43	9033095		03/25/09 18:23
Ethylbenzene		50.5	ug/kg	50.0	101%	80 - 128	6	48	9033095		03/25/09 18:23
Naphthalene		63.8	ug/kg	50.0	128%	63 - 144	2	50	9033095		03/25/09 18:23
Toluene		51.4	ug/kg	50.0	103%	80 - 125	7	44	9033095		03/25/09 18:23
Xylenes, total		152	ug/kg	150	101%	79 - 130	5	48	9033095		03/25/09 18:23
Surrogate: 1,2-Dichloroethane-d4		52.6	ug/kg	50.0	105%	41 - 150			9033095		03/25/09 18:23
Surrogate: Dibromofluoromethane		48.8	ug/kg	50.0	98%	55 - 139			9033095		03/25/09 18:23
Surrogate: Toluene-d8		51.0	ug/kg	50.0	102%	57 - 148			9033095		03/25/09 18:23
Surrogate: 4-Bromofluorobenzene		55.8	ug/kg	50.0	112%	58 - 150			9033095		03/25/09 18:23
9034182-BSD1											
Benzene		52.4	ug/kg	50.0	105%	76 - 130	2	43	9034182		03/26/09 13:40
Ethylbenzene		55.5	ug/kg	50.0	111%	80 - 128	0.5	48	9034182		03/26/09 13:40
Naphthalene		61.9	ug/kg	50.0	124%	63 - 144	2	50	9034182		03/26/09 13:40
Toluene		57.0	ug/kg	50.0	114%	80 - 125	2	44	9034182		03/26/09 13:40
Xylenes, total		165	ug/kg	150	110%	79 - 130	0.3	48	9034182		03/26/09 13:40
Surrogate: 1,2-Dichloroethane-d4		47.4	ug/kg	50.0	95%	41 - 150			9034182		03/26/09 13:40
Surrogate: Dibromofluoromethane		48.9	ug/kg	50.0	98%	55 - 139			9034182		03/26/09 13:40



2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

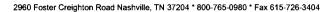
Project Number:

[none]

Received: 03/20/09 08:00

# PROJECT QUALITY CONTROL DATA LCS Dup - Cont.

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Compo	ounds by EPA	Method 820	60B									
9034182-BSD1												
Surrogate: 4-Bromofluorobenzene		52.8		ug/kg	50.0	106%	58 - 150			9034182		03/26/09 13:40
9034202-BSD1												
Benzene		58.0		ug/kg	50.0	116%	76 - 130	3	43	9034202		03/27/09 11:51
Ethylbenzene		61.5		ug/kg	50.0	123%	80 - 128	0.5	48	9034202		03/27/09 11:51
Naphthalone		67.0		ug/kg	50.0	134%	63 - 144	5	50	9034202		03/27/09 11:51
Toluene		62.7		ug/kg	50.0	125%	80 - 125	3	44	9034202		03/27/09 11:51
Xylenes, total		181		ug/kg	150	120%	79 - 130	0.5	48	9034202		03/27/09 11:51
Surrogate: 1,2-Dichloroethane-d4		48.1		ug/kg	50.0	96%	41 - 150			9034202		03/27/09 11:51
Surrogate: Dibromofluoromethane		48.7		ug/kg	50.0	97%	55 - 139			9034202		03/27/09 11:51
Surrogate: Toluene-d8		51.2		ug/kg	50.0	102%	57 - 148			9034202		03/27/09 11:51
Surrogate: 4-Bromofluorobenzene		53.8		ug/kg	50.0	108%	58 - 150			9034202		03/27/09 11:51





10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

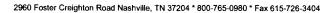
Project Number:

[none]

Received: 03/20/09 08:00

# PROJECT QUALITY CONTROL DATA Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Polyaromatic Hydrocarbons by	v EPA 8270D									
9033201-MS1	,									
Acenaphthene	ND	1.53		mg/kg wct	1.62	94%	28 - 117	9033201	NSC1962-04	03/26/09 22:23
Acenaphthylene	ND	1.53		mg/kg wet	1.62	94%	33 - 113	9033201	NSC1962-04	03/26/09 22:23
Anthracene	ND	1.65		mg/kg wet	1.62	102%	31 - 131	9033201	NSC1962-04	03/26/09 22:23
Benzo (a) anthracene	ND	1.43		mg/kg wet	1.62	88%	29 - 124	9033201	NSC1962-04	03/26/09 22:23
Benzo (a) pyrene	ND	1.58		mg/kg wet	1.62	97%	30 - 127	9033201	NSC1962-04	03/26/09 22:23
Benzo (b) fluoranthene	ND	1.47		mg/kg wet	1.62	91%	26 - 128	9033201	NSC1962-04	03/26/09 22:23
Benzo (g,h,i) perylene	ND	1.45		mg/kg wet	1.62	89%	21 - 122	9033201	NSC1962-04	03/26/09 22:23
Benzo (k) fluoranthene	ND	1.55		mg/kg wet	1.62	96%	20 - 130	9033201	NSC1962-04	03/26/09 22:23
Chrysene	ND	1.47		mg/kg wet	1.62	91%	30 - 119	9033201	NSC1962-04	03/26/09 22:23
Dibenz (a,h) anthracene	ND	1.47		mg/kg wet	1.62	90%	27 - 122	9033201	NSC1962-04	03/26/09 22:23
Fluoranthene	ND	1.61		mg/kg wet	1.62	99%	23 - 132	9033201	NSC1962-04	03/26/09 22:23
Fluorene	ND	1.52		mg/kg wet	1.62	94%	38 - 110	9033201	NSC1962-04	03/26/09 22:23
Indeno (1,2,3-cd) pyrene	ND	1.50		mg/kg wet	1.62	92%	24 - 122	9033201	NSC1962-04	03/26/09 22:23
Naphthalene	ND	1.36		mg/kg wet	1.62	84%	14 - 117	9033201	NSC1962-04	03/26/09 22:23
Phenanthrene	ND	1.47		mg/kg wet	1.62	91%	21 - 130	9033201	NSC1962-04	03/26/09 22:23
Рутепе	ND	1.51		mg/kg wet	1.62	93%	24 - 133	9033201	NSC1962-04	03/26/09 22:23
Surrogate: Terphenyl-d14		1.06		mg/kg wet	1.62	66%	26 - 128	9033201	NSC1962-04	03/26/09 22:23
Surrogate: 2-Fluorobiphenyl		1.20		mg/kg wet	1.62	74%	19 - 109	9033201	NSC1962-04	03/26/09 22:23
Surrogate: Nitrobenzene-d5		1.17		mg/kg wet	1.62	72%	22 - 104	9033201	NSC1962-04	03/26/09 22:23
9033305-MS1										
Acenaphthene	ND	0.161	M2	mg/kg dry	2.29	7%	28 - 117	9033305	NSC1899-03	03/23/09 19:33
Acenaphthylene	ND	0.936		mg/kg dry	2.29	41%	33 - 113	9033305	NSC1899-03	03/23/09 19:33
Anthracene	0.540	2.10		mg/kg dry	2.29	68%	31 - 131	9033305	NSC1899-03	03/23/09 19:33
Benzo (a) anthracene	ND	2.01		mg/kg dry	2.29	88%	29 - 124	9033305	NSC1899-03	03/23/09 19:33
Benzo (a) pyrene	ND	2.04		mg/kg dry	2.29	89%	30 - 127	9033305	NSC1899-03	03/23/09 19:33
Benzo (b) fluoranthene	ND	2.07		mg/kg dry	2.29	91%	26 - 128	9033305	NSC1899-03	03/23/09 19:33
Benzo (g,h,i) perylene	ND	1.90		mg/kg dry	2.29	83%	21 - 122	9033305	NSC1899-03	03/23/09 19:33
Benzo (k) fluoranthene	ND	1.88		mg/kg dry	2.29	82%	20 - 130	9033305	NSC1899-03	03/23/09 19:33
Chrysene	0.0831	2.05		mg/kg dry	2.29	86%	30 - 119	9033305	NSC1899-03	03/23/09 19:33
Dibenz (a,h) anthracene	ND	1.93		mg/kg dry	2.29	84%	27 - 122	9033305	NSC1899-03	03/23/09 19:33
Fluoranthene	ND	2.38		mg/kg dry	2.29	104%	23 - 132	9033305	NSC1899-03	03/23/09 19:33
Fluorene	2.90	0.464	M2	mg/kg dry	2.29	-106%	38 - 110	9033305	NSC1899-03	03/23/09 19:33
Indeno (1,2,3-cd) pyrene	ND	1.94		mg/kg dry	2.29	85%	24 - 122	9033305	NSC1899-03	03/23/09 19:33
Naphthalene	8.43	11.9	MI	mg/kg dry	2.29	149%	14 - 117	9033305	NSC1899-03	03/23/09 19:33
Phenanthrene	5.98	8.27		mg/kg dry	2.29	100%	21 - 130	9033305	NSC1899-03	03/23/09 19:33
Рутепе	0.698	2.44		mg/kg dry	2.29	76%	24 - 133	9033305	NSC1899-03	03/23/09 19:33





10179 Highway 78 Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSC1899

Project Name: Laurel Bay Housing Project

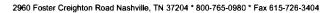
Project Number:

Received:

r: [none] 03/20/09 08:00

#### 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
Polyaromatic Hydrocarbons by I	EPA 8270D									
9033305-MS1										
Surrogate: Terphenyl-d14		2.00		mg/kg dry	2.29	88%	26 - 128	9033305	NSC1899-03	03/23/09 19:33
Surrogate: 2-Fluorobiphenyl		1.88		mg/kg dry	2.29	82%	19 - 109	9033305	NSC1899-03	03/23/09 19:33
Surrogate: Nitrobenzene-d5		3.67	ZX	mg/kg dry	2.29	160%	22 - 104	9033305	NSC1899-03	03/23/09 19:33
Selected Volatile Organic Compo	ounds by EPA Me	thod 8260B								
9034182-MS1										
Benzene	ND	2.86		mg/kg dry	2.82	101%	33 - 146	9034182	NSC1899-05RE 1	03/26/09 19:01
Ethylbenzene	0.0709	3.14		mg/kg dry	2.82	109%	16 - 160	9034182	NSC1899-05RE 1	03/26/09 19:01
Naphthalene	4.20	7.03		mg/kg dry	2.82	101%	10 - 151	9034182	NSC1899-05RE 1	03/26/09 19:01
Toluene	ND	3.08		mg/kg dry	2.82	109%	30 - 145	9034182	NSC1899-05RE I	03/26/09 19:01
Xylenes, total	0.163	9.59		mg/kg dry	8.47	111%	16 - 159	9034182	NSC1899-05RE 1	03/26/09 19:01
Surrogate: 1,2-Dichloroethane-d4		45.7		ug/kg	50.0	91%	41 - 150	9034182	NSC1899-05RE 1	03/26/09 19:01
Surrogate: Dibromofluoromethane		49.7		ug/kg	50.0	99%	55 - 139	9034182	NSC1899-05RE 1	03/26/09 19:01
Surrogate: Toluene-d8		49.9		ug/kg	50.0	100%	57 - 148	9034182	NSC1899-05RE 1	03/26/09 19:01
Surrogate: 4-Bromofluorobenzene		49.2		ug/kg	50.0	98%	58 - 150	9034182	NSC1899-05RE	03/26/09 19:01





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSC1899

Project Name: Laurel Bay Housing Project

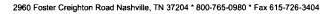
Project Number:

[none] 03/20/09 08:00

Received:

# 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
Polyaromatic Hydrocarbons by EP.	A 8270D											
9033201-MSD1												
Acenaphthene	ND	1.48		mg/kg wet	1.63	91%	28 - 117	3	33	9033201	NSC1962-04	03/26/09 22:44
Acenaphthylene	ND	1.52		mg/kg wct	1.63	93%	33 - 113	0.6	38	9033201	NSC1962-04	03/26/09 22:44
Anthracene	ND	1.64		mg/kg wct	1.63	101%	31 - 131	0.8	32	9033201	NSC1962-04	03/26/09 22:44
Benzo (a) anthracene	ND	1.38		mg/kg wet	1.63	85%	29 - 124	3	26	9033201	NSC1962-04	03/26/09 22:44
Benzo (a) pyrene	ND	1.60		mg/kg wet	1.63	98%	30 - 127	1	31	9033201	NSC1962-04	03/26/09 22:44
Benzo (b) fluoranthene	ND	1.27		mg/kg wet	1.63	78%	26 - 128	14	37	9033201	NSC 1962-04	03/26/09 22:44
Benzo (g,h,i) perylene	ND	1.44		mg/kg wet	1.63	88%	21 - 122	0.6	28	9033201	NSC 1962-04	03/26/09 22:44
Benzo (k) fluoranthene	ND	1.79		mg/kg wet	1.63	110%	20 - 130	14	35	9033201	NSC 1962-04	03/26/09 22:44
Chrysene	ND	1.47		mg/kg wet	1.63	90%	30 - 119	0.05	31	9033201	NSC 1962-04	03/26/09 22:44
Dibenz (a,h) anthraeene	ND	1.46		mg/kg wet	1.63	90%	27 - 122	0.4	32	9033201	NSC 1962-04	03/26/09 22:44
Fluoranthene	ND	1.58		mg/kg wet	1.63	97%	23 - 132	2	36	9033201	NSC1962-04	03/26/09 22:44
Fluorene	ND	1.48		mg/kg wet	1.63	91%	38 - 110	3	35	9033201	NSC1962-04	03/26/09 22:44
Indeno (1,2,3-cd) pyrene	ND	1.53		mg/kg wet	1.63	94%	24 - 122	2	28	9033201	NSC1962-04	03/26/09 22:44
Naphthalenc	ND	1.43		mg/kg wet	1.63	88%	14 - 117	5	34	9033201	NSC1962-04	03/26/09 22:44
Phenanthrene	ND	1.49		mg/kg wet	1.63	92%	21 - 130	0.9	33	9033201	NSC1962-04	03/26/09 22:44
Pyrenc	ND	1.46		mg/kg wet	1.63	90%	24 - 133	3	36	9033201	NSC1962-04	03/26/09 22:44
Surrogate: Terphenyl-d14		1.06		mg/kg wet	1.63	65%	26 - 128			9033201	NSC1962-04	03/26/09 22:44
Surrogate: 2-Fluorobiphenyl		1.16		mg/kg wet	1.63	71%	19 - 109			9033201	NSC 1962-04	03/26/09 22:44
Surrogate: Nitrobenzene-d5		1.17		mg/kg wet	1.63	72%	22 - 104			9033201	NSC1962-04	03/26/09 22:44
9033305-MSD1												
Acenaphthene	ND	2.31	R	mg/kg dry	2.25	102%	28 - 117	174	33	9033305	NSC1899-03	03/23/09 19:55
Acenaphthylene	ND	0.903		mg/kg dry	2.25	40%	33 - 113	4	38	9033305	NSC1899-03	03/23/09 19:55
Anthracene	0.540	2.49		mg/kg dry	2.25	86%	31 - 131	17	32	9033305	NSC1899-03	03/23/09 19:55
Benzo (a) anthracene	ND	2.19		mg/kg dry	2.25	97%	29 - 124	9	26	9033305	NSC1899-03	03/23/09 19:55
Bcnzo (a) pyrene	ND	2.19		mg/kg dry	2.25	97%	30 - 127	7	31	9033305	NSC1899-03	03/23/09 19:55
Benzo (b) fluoranthene	ND	2.33		mg/kg dry	2.25	103%	26 - 128	12	37	9033305	NSC1899-03	03/23/09 19:55
Benzo (g,h,i) perylene	ND	2.02		mg/kg dry	2.25	90%	21 - 122	6	28	9033305	NSC1899-03	03/23/09 19:55
Benzo (k) fluoranthene	ND	1.95		mg/kg dry	2.25	86%	20 - 130	3	35	9033305	NSC1899-03	03/23/09 19:55
Chrysene	0.0831	2.22		mg/kg dry	2.25	95%	30 - 119	8	31	9033305	NSC1899-03	03/23/09 19:55
Dibenz (a,h) anthracene	ND	2.07		mg/kg dry	2.25	92%	27 - 122	7	32	9033305	NSC1899-03	03/23/09 19:55
Fluoranthene	ND	2.42		mg/kg dry	2.25	107%	23 - 132	2	36	9033305	NSC1899-03	03/23/09 19:55
Fluorene	2.90	0.541	M2	mg/kg dry	2.25	-105%	38 - 110	15	35	9033305	NSC1899-03	03/23/09 19:55
Indeno (1,2,3-cd) pyrene	ND	2.08		mg/kg dry	2.25	92%	24 - 122	7	28	9033305	NSC1899-03	03/23/09 19:55
Naphthalene	8.43	9.79		mg/kg dry	2.25	60%	14 - 117	19	34	9033305	NSC1899-03	03/23/09 19:55
Phenanthrene	5.98	7.74		mg/kg dry	2.25	78%	21 - 130	7	33	9033305	NSC1899-03	03/23/09 19:55
Pyrene	0.698	2.73		mg/kg dry	2.25	90%	24 - 133	11	36	9033305	NSC1899-03	03/23/09 19:55
Surrogate: Terphenyl-d14		2.24		mg/kg dry	2.25	99%	26 - 128			9033305	NSC1899-03	03/23/09 19:55
Surrogate: 2-Fluorobiphenyl		2.06		mg/kg dry	2.25	91%	19 - 109			9033305	NSC1899-03	03/23/09 19:55
Surrogate: Nitrobenzene-d5		3.14	ZX	mg/kg dry	2.25	139%	22 - 104			9033305	NSC1899-03	03/23/09 19:55





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

Received:

NSC1899

Project Name:

Laurel Bay Housing Project

Project Number: [

[none] 03/20/09 08:00

## PROJECT QUALITY CONTROL DATA

#### Matrix Spike Dup - Cont.

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD Li	mit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Comp	ounds by EPA	Method 826	60B									
9034182-MSD1												
Benzene	ND	3.14		mg/kg dry	2.82	111%	33 - 146	10 4	43	9034182	NSC1899-05RE	03/26/09 19:31
Ethylbenzene	0.0709	3.44		mg/kg dry	2.82	120%	16 - 160	9 4	48	9034182	1 NSC1899-05RE	03/26/09 19:31
											1	
Naphthalenc	4.20	7.14		mg/kg dry	2.82	104%	10 - 151	2 5	50	9034182	NSC1899-05RE	03/26/09 19:31
Tolucne	ND	3.38		mg/kg dry	2.82	120%	30 - 145	9 4	14	9034182	NSC1899-05RE	03/26/09 19:31
Xylenes, total	0.163	10.6		mg/kg dry	8.47	123%	16 - 159	10 4	18	9034182	1 NSC1899-05RE	03/26/09 19:31
•				00,							1	
Surrogate: 1,2-Dichloroethane-d4		45.1		ug/kg	50.0	90%	41 - 150			9034182	NSC1899-05RE	03/26/09 19:31
Surrogate: Dibromofluoromethane		49.7		ug/kg	50.0	99%	55 - 139			9034182	NSC1899-05RE	03/26/09 19:31
											i	
Surrogate: Toluene-d8		49.4		ug/kg	50.0	99%	57 - 148			9034182	NSC1899-05RE	03/26/09 19:31
Surrogate: 4-Bromofluorobenzene		53.3		ug/kg	50.0	107%	58 - 150			9034182	l NSC1899-05RE	03/26/09 19:31
											1	



2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

Client EEG - Env. Enterprise Group (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

Project Number:

[none]

Received:

03/20/09 08:00

#### **CERTIFICATION SUMMARY**

#### TestAmerica Nashville

Attn

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



2960 Foster Creighton Road Nashville, TN 37204 \* 800-765-0980 \* Fax 615-726-3404

EEG - Env. Enterprise Group (2449) Client

> 10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

ND

Work Order:

NSC1899

Project Name:

Laurel Bay Housing Project

Project Number:

[none]

Received:

03/20/09 08:00

#### **DATA QUALIFIERS AND DEFINITIONS**

L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
R	The RPD exceeded the method control limit. The individual analyte QA/QC recoveries, however, were within acceptance limits.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

Not detected at the reporting limit (or method detection limit if shown)

#### METHOD MODIFICATION NOTES

TestAmerica Nahville Division

2960 Foster Creighton Nashville, TN 37204

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

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

ę' £

Yes χes

Enforcement Action?

Compliance Monitoring?

Project ID: Laurel Bay Housing Project Site State: SC . \* \* TA Quote #:

Fax No.: 843-879-040

Project Manager: Tom McEwee email: mcetwee@eeginc.net

Telephone Number: 843.412.2097

Sampler Name: (Print) Sampler Signature:

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

Client Name/Account #: EEG # 2449

Shaw

Project #:

Lousi (eluberto2-eng) TAT H2UR 04/03/09 23:59 **NSC1899** PAH - 8270C alu BTEX + Napth - 8260E lios aßpnys Drinking Water Field Filtered 08 01 PO/8/16 0201 3/16/09 0915 226 3/11/09 1355 Time Sampled Date Sampled 40 Lungel Bry Bld. 2 44 LAURE BAY Blod YOLAURE BAYOW 42 LANCE BAY BING 48 LAURA Special Instructions Sample ID / Descri

1006 601 16).

Relinquished by:

0200

ille ille

Date

FEDEX

Method of Shipment

1.4

Temperature Upon Receipt: VOCs Free of Headspace?

Laboratory Comments:

30009 Date

## 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 144 Laurel Bay Blvd., 144 Laurel Bay Blvd, 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	<u>SIZE (GAL)</u>
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.

 $\frac{1.0.620ee}{\text{(Name)}} \frac{4/8/09}{\text{(Date)}}$ 

# Appendix C Laboratory Analytical Report - Groundwater



### Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB144TW01WG20130723

Laboratory ID: OG25027-011

Matrix: Aqueous

Date Sampled: 07/23/2013 1050 Date Received: 07/25/2013

Analytical Method Run Prep Method Dilution Analysis Date Analyst Prep Date Batch 5030B 8260B 08/02/2013 1614 ALL 26393

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	0.17	BJ	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
	Run 1 Accepta	ance							

Surrogate	Q	Run 1 % Recovery	Acceptane Limits
1,2-Dichloroethane-d4		106	70-120
Toluene-d8		98	85-120
Bromofluorobenzene		109	75-120
Dibromofluoromethane		101	85-115

PQL = Practical quantitation limit ND = Not detected at or above the MDL

Shealy Environmental Services, Inc.

B = Detected in the method blank J = Estimated result < PQL and >\_MDL

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

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

H = Out of holding time N = Recovery is out of criteria

Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Level 1 Report v2.1

### Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB144TW01WG20130723

Laboratory ID: OG25027-011

Matrix: Aqueous

Date Sampled: 07/23/2013 1050 Date Received: 07/25/2013

 Run
 Prep Method
 Analytical Method
 Dilution
 Analysis Date
 Analyst
 Prep Date
 Batch

 1
 3520C
 8270D
 1
 07/26/2013 1544
 RBH
 07/25/2013 1509
 25843

Parameter	CAS Number	Analytical Method	Result Q	LOQ	LOD	DL Units Run
Benzo(a)anthracene	56-55-3	8270D	ND	0.21	0.10	0.086 ug/L 1
Benzo(b)fluoranthene	205-99-2	8270D	ND	0.21	0.10	0.092 ug/L 1
Benzo(k)fluoranthene	207-08-9	8270D	ND	0.21	0.10	0.097 ug/L 1
Chrysene	218-01-9	8270D	ND	0.21	0.10	0.057 ug/L 1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND	0.21	0.10	0.061 ug/L 1
Surrogate	Run 1 Accepta Q % Recovery Limi					

Surrogate	Q	% Recovery	Limits
2-Fluorobiphenyl		76	50-110
Nitrobenzene-d5		80	40-110
Terphenyl-d14		61	50-135

PQL = Practical quantitation limit
ND = Not detected at or above the MDL

B = Detected in the method blank
J = Estimated result < PQL and >\_MDL

 $\label{eq:power_power} \mbox{E = Quantitation of compound exceeded the calibration range} \\ \mbox{P = The RPD between two GC columns exceeds } 40\%$ 

H = Out of holding time N = Recovery is out of criteria

Q = Surrogate failure L = LCS/LCSD failure S = MS/MSD failure

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

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Level 1 Report v2.1

# Appendix D Regulatory Correspondence





#### C. Earl Hunter, Commissioner

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

May 18, 2009

Commanding Officer

ATTN: S-4 NREAO (Craig Ehde)

**MCAS** 

PO Box 55001

Beaufort, SC 29904-5001

Re:

MCAS - Laurel Bay Housing -144 Laurel Bay

Site ID # 04193

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 cookeit@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

Region 8 District EQC cc:



# 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 or 803-898-0294.

Sincerely,

Laurel Petrus

FURX

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

Specifice Property Recommendations Dated August 6, 2015

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

119 Banyan	156 Laurel Bay
128 Banyan	1033 Foxglove
132 Banyan	1055 Gardenia
135 Birch	1059 Gardenia
148 Laurel Bay	1168 Jasmine
No Furth	er Action recommendation (25 addresses/27 tanks):
115 Banyan	386 Acorn
116 Banyan	395 Acorn
120 Banyan	399 Acorn
124 Banyan	1021 Foxglove
124 Builyun	
	1027 Foxglove
125 Banyan	1027 Foxglove 1030 Foxglove
125 Banyan 136 Birch	
125 Banyan 136 Birch 140 Laurel Bay	1030 Foxglove
125 Banyan 136 Birch 140 Laurel Bay 144 Laurel Bay 152 Laurel Bay	1030 Foxglove 1032 Foxglove
125 Banyan 136 Birch 140 Laurel Bay 144 Laurel Bay	1030 Foxglove 1032 Foxglove 1053 Gardenia
125 Banyan 136 Birch 140 Laurel Bay 144 Laurel Bay 152 Laurel Bay	1030 Foxglove 1032 Foxglove 1053 Gardenia 1058 Gardenia