SUMMARY REPORT
100 BIRCH ROAD (FORMERLY 275 BIRCH ROAD)
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:



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Contract Number: N62470-14-D-9016

CTO WE52

JUNE 2021

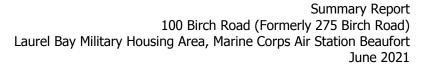


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List of Acronyms

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 100 Birch Road (Formerly 275 Birch Road). 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, 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, 2016), the soil screening levels consists of SCDHEC risk-based screening levels (RBSLs). It should be noted that the RBSLs for select PAHs were revised in Revision 2.0 of the QAPP (SCDHEC, 2013) and were revised again in Revision 3.0 (SCDHEC, 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 100 Birch Road (Formerly 275 Birch Road). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 275 Birch Road* (MCAS Beaufort, 2011). 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 – November and December 2015* (Resolution Consultants, 2016). 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 February 16, 2011, a single 280 gallon heating oil UST was removed from the front landscaped bed area adjacent to the concrete porch at 100 Birch Road (Formerly 275 Birch Road). 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 6'2" 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 100 Birch Road (Formerly 275 Birch Road) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 100 Birch Road (Formerly 275 Birch Road) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

2.3 Groundwater Sampling

On November 6, 2015, a temporary monitoring well was installed at 100 Birch Road (Formerly 275 Birch Road), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST 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 – November and December 2015* (Resolution Consultants, 2016).



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

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 100 Birch Road (Formerly 275 Birch Road) 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 100 Birch Road (Formerly 275 Birch Road). This NFA determination was obtained in a letter dated June 8, 2016. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2011. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 275

Birch Road, Laurel Bay Military Housing Area, June 2011.

Resolution Consultants, 2016. *Initial Groundwater Investigation Report – November and December 2015 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, April 2016.





- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.1*, February 2016.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.
- South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

Tables



Table 1 Laboratory Analytical Results - Soil 100 Birch Road (Formerly 275 Birch Road) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 02/16/11		
Volatile Organic Compounds Analyze	ed by EPA Method 8260B (mg/kg)			
Benzene	0.003	ND		
Ethylbenzene	1.15	ND		
Naphthalene	0.036	0.0174		
Toluene	0.627	ND		
Xylenes, Total	13.01	0.00268		
Semivolatile Organic Compounds An	alyzed by EPA Method 8270D (mg/kg)			
Benzo(a)anthracene	0.66	1.07		
Benzo(b)fluoranthene	0.66	0.629		
Benzo(k)fluoranthene	0.66	0.418		
Chrysene	0.66	0.704		
Dibenz(a,h)anthracene	0.66	0.0594		

Notes:

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0 and 3.1 (SCDHEC, May 2015 and SCDHEC, February 2016) 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 100 Birch Road (Formerly 275 Birch Road) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) ⁽²⁾	Results Sample Collected 11/06/15			
Volatile Organic Compounds Analyzed by EPA Method 8260B (μg/L)						
Benzene	5	16.24	ND			
Ethylbenzene	700	45.95	0.25			
Naphthalene	25	29.33	4.2			
Toluene	1000	105,445	ND			
Xylenes, Total	10,000	2,133	ND			
Semivolatile Organic Compounds Ana	lyzed by EPA Method 8	270D (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:

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

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

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

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report

Date Received		
	State Use C	

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

I. OWNERSHIP OF UST (S)

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

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, SC
Sacility Name or Company Site Identifier
275 Birch Drive, Laurel Bay Military Housing Area
treet Address or State Road (as applicable)
Beaufort, Beaufort
County

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement
The petroleum release reported to DHEC on at Permit ID Number may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. This section must be completed.
Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES NO (check one)
If you answered YES to the above question, please complete the following information:
My policy provider is: The policy deductible is: The policy limit is:
If you have this type of insurance, please include a copy of the policy with this report.
IV. REQUEST FOR SUPERB FUNDING
I DO / DO NOT wish to participate in the SUPERB Program. (Circle one.)
V. CERTIFICATION (To be signed by the UST owner)
I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.
Name (Type or print.)
Signature
To be completed by Notary Public:
Sworn before me this day of, 20
(Name)
Notary Public for the state of Please affix State seal if you are commissioned outside South Carolina

VI. UST INFORMATION	275Birch
Product(ex. Gas, Kerosene)	Heating oil
Capacity(ex. 1k, 2k)	280 gal
Age	Late 1950s
Construction Material(ex. Steel, FRP)	Steel
Month/Year of Last Use	Mid 80s
Depth (ft.) To Base of Tank	6'2"
Spill Prevention Equipment Y/N	No
Overfill Prevention Equipment Y/N	No
Method of Closure Removed/Filled	Removed
Date Tanks Removed/Filled	2/16/2011
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	Yes
Method of disposal for any USTs removed from th UST 275Birch was removed from th	- · · · · · · · · · · · · · · · · · · ·
ODI 273BITCH WAS TEMOVED TIOM CI	ie ground, creaned and recycled.
Mathada Calina and Canana liquid materalasma abada	reas on weathern some and from the USTs (attack
disposal manifests)	ges, or wastewaters removed from the USTs (attach com the tank and disposed of by MCAS.
	

VII. PIPING INFORMATION

	275Birch
	Steel
Construction Material(ex. Steel, FRP)	& Copper
Distance from UST to Dispenser	N/A
Distance from OST to Dispenser	
Number of Dispensers	N/A
Type of System Pressure or Suction	Suction
Was Piping Removed from the Ground? Y/N	Yes
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	No
VISION TIONS 1/1	·
Age	Late 1950s
If any corrosion, pitting, or holes were observed, or	lescribe the location and extent for each piping
Steel vent piping for all tanks	were corroded and pitted. Air
copper supply and return piping	were sound
11 11 1 T T T T T T T T T T T T T T T T	were boaria.
	were bound.
	were sound.
·	
VIII. BRIEF SITE DESCR The USTs at the residences are co	IPTION AND HISTORY
VIII. BRIEF SITE DESCR	IPTION AND HISTORY onstructed of single wall steel
VIII. BRIEF SITE DESCR The USTs at the residences are co	IPTION AND HISTORY onstructed of single wall steel for heating. These USTs were
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VIII. BRIEF SITE DESCR The USTs at the residences are co	IPTION AND HISTORY onstructed of single wall steel for heating. These USTs were

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? *Mild petroleum odor from tank ending the second secon	*X xcava	ıtion	
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	
E. Was a petroleum sheen or free product detected on any excavation or boring waters? If yes, indicate location and thickness.		X	

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009001

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
275 Birch	Excav at fill end	Soil	Sandy-clay	6'2"	2/16/11 1145 hrs	P. Shaw	
	Partition 20 control and an advantage						
8							
9							:
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20		* - Dough					

^{* =} 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.

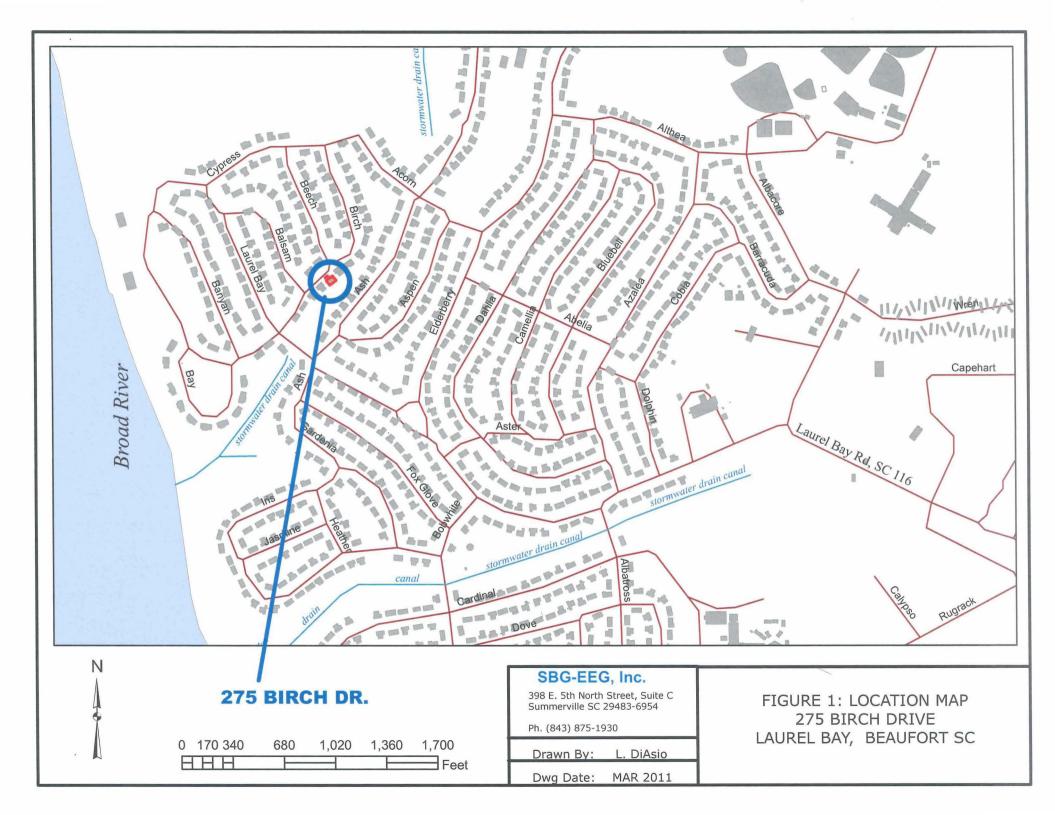
XII. RECEPTORS

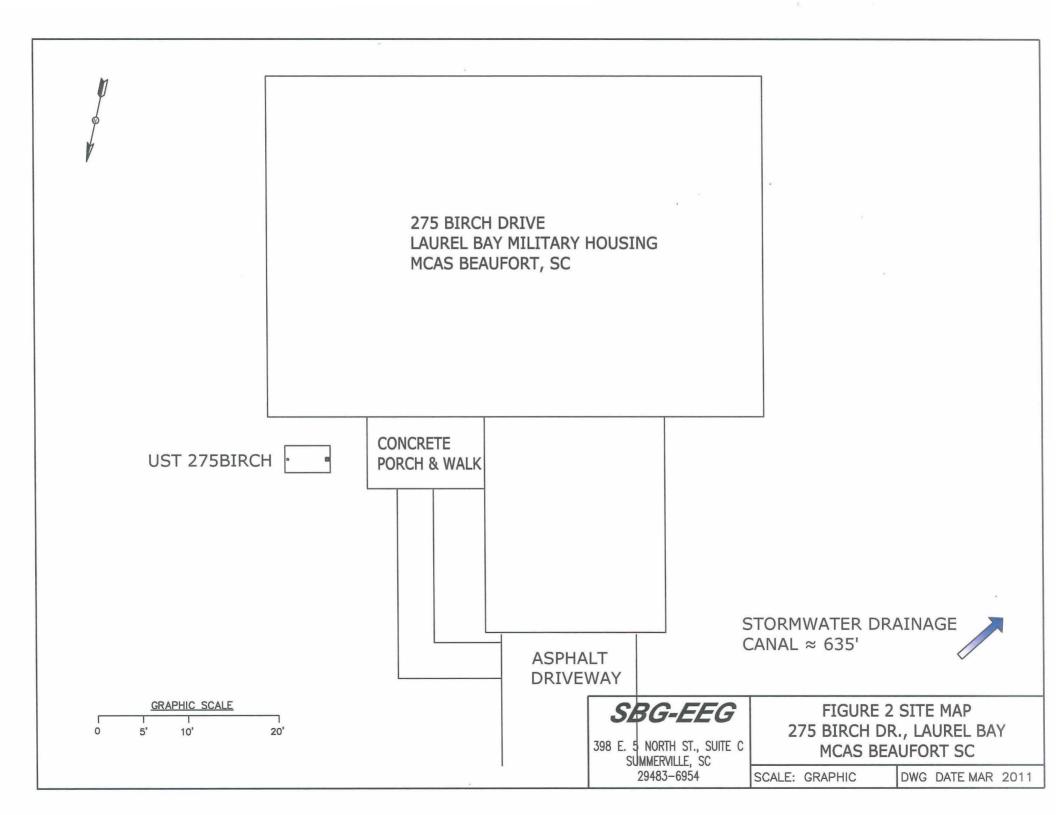
		Yes	No	
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?	*X		
	*Approx 635' to stormwater drai If yes, indicate type of receptor, distance, and direction on site map.	nage	canal	
В.	Are there any public, private, or irrigation water supply wells within 1000 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, we electricity.			l
	If yes, indicate the type of utility, distance, and direction on the site map.			
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.			

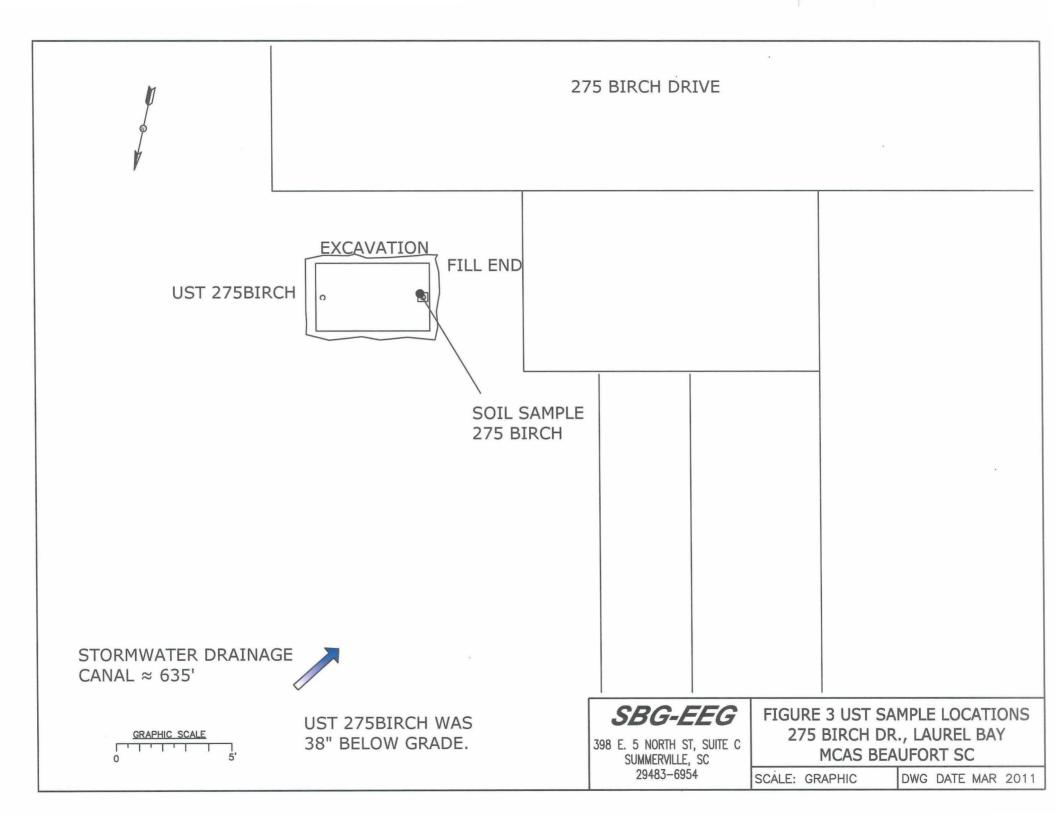
XIII. SITE MAP

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: Location of UST 275Birch.



Picture 2: UST 275Birch.

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			T	
CoC UST	275 Birch					
Benzene	ND					
Toluene	ND					
Ethylbenzene	ND					
Xylenes	0.00268 mg/	kg				
Naphthalene	0.0174 mg/k	g				
Benzo (a) anthracene	1.07 mg/kg					
Benzo (b) fluoranthene	0.629 mg/kg					
Benzo (k) fluoranthene	0.418 mg/kg					
Chrysene	0.704 mg/kg					
Dibenz (a, h) anthracene	0.0594 mg/kg	}				
TPH (EPA 3550)						
				T	1	
СоС						
Benzene						
Toluene						
Ethylbenzene						
Xylenes						
Naphthalene						
Benzo (a) anthracene						
Benzo (b) fluoranthene						
Benzo (k) fluoranthene						
Chrysene						
Dibenz (a, h) anthracene						
TPH (EPA 3550)					_	

SUMMARY OF ANALYSIS RESULTS (cont'd)
Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

	CoC RBSL							
CoC	RBSL	W-1	W-2	W -3	W -4			
	(µg/l)							
Free Product	Ness							
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)

ATTACHMENT A



March 04, 2011

3:50:47PM

Client:

Attn:

EEG - Small Business Group, Inc. (2449)

10179 Highway 78

101/9 Highway /o

Ladson, SC 29456

Tom McElwee

Work Order: NUB3244

Project Name:

Laurel Bay Housing Project

Project Nbr: P/O Nbr:

[none]

P/O Nbr: 1027 Date Received: 02/19/11

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
271 Birch-1	NUB3244-01	02/14/11 16:00
271 Birch-2	NUB3244-02	02/15/11 10:45
275 Birch	NUB3244-03	02/16/11 11:45
292 Birch	NUB3244-04	02/16/11 15:30
284 Birch-1	NUB3244-05	02/17/11 11:45
284 Birch-2	NUB3244-06	02/17/11 15:00

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.

South Carolina Certification Number: 84009

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

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

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

Estimated uncertainty is available upon request.

This report has been electronically signed.

Em & Alago

Report Approved By:

Ken A. Hayes

Senior Project Manager



THE LEADER IN ENVIRONMENTAL TESTING

Client EEG - Small Business Group, Inc. (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUB3244

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

ANALYTICAL REPORT

						Dilution	Analysis			
Analyte	Result	Flag	Units	MDL	MRL	Factor	Date/Time	Method	Analyst	Batch
Sample ID: NUB3244-01 (271 Bi	rch-1 - Soil) S	ampled:	02/14/11	16:00						
General Chemistry Parameters										
% Dry Solids	82.9		%	0.500	0.500	1	03/03/11 13:39	SW-846	AMS	11C0411
Volatile Organic Compounds by EPA	A Method 8260B	}								
Benzene	ND		mg/kg dry	0.00101	0.00184	1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Ethylbenzene	ND		mg/kg dry	0.000904	0.00184	1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Naphthalene	ND		mg/kg dry	0.00157	0.00461	1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Toluene	ND		mg/kg dry	0.000821	0.00184	1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Xylenes, total	ND		mg/kg dry	0.00175	0.00461	1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Surr: 1,2-Dichloroethane-d4 (67-138%)	89 %					1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Surr: Dibromofluoromethane (75-125%)	89 %					1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Surr: Toluene-d8 (76-129%)	106 %					1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Surr: 4-Bromofluorobenzene (67-147%)	105 %					1	02/26/11 03:25	SW846 8260B	KxC	11B5164
Polyaromatic Hydrocarbons by EPA	8270D									
Acenaphthene	ND		mg/kg dry	0.0169	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Acenaphthylene	ND		mg/kg dry	0.0241	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Anthracene	ND		mg/kg dry	0.0108	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Benzo (a) anthracene	ND		mg/kg dry	0.0133	0.0807	1	02/25/11 21:35	SW846 8270D	ЛLS	11B4858
Benzo (a) pyrene	ND		mg/kg dry	0.00964	0.0807	1	02/25/11 21:35	SW846 8270D	ЛLS	11B4858
Benzo (b) fluoranthene	ND		mg/kg dry	0.0458	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0108	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Benzo (k) fluoranthene	ND		mg/kg dry	0.0446	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Chrysene	ND		mg/kg dry	0.0373	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0181	0.0807	1	02/25/11 21:35	SW846 8270D	ЛLS	11B4858
Fluoranthene	ND		mg/kg dry	0.0133	0.0807	1	02/25/11 21:35	SW846 8270D	ЛLS	11B4858
Fluorene	ND		mg/kg dry	0.0241	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0373	0.0807	1	02/25/11 21:35	SW846 8270D	ЛLS	11B4858
Naphthalene	ND		mg/kg dry	0.0169	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Phenanthrene	ND		mg/kg dry	0.0120	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Pyrene	ND		mg/kg dry	0.0277	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
1-Methylnaphthalene	ND		mg/kg dry	0.0145	0.0807	1	02/25/11 21:35	SW846 8270D	ЛLS	11B4858
2-Methylnaphthalene	ND		mg/kg dry	0.0253	0.0807	1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Surr: Terphenyl-d14 (18-120%)	63 %					1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Surr: 2-Fluorobiphenyl (14-120%)	55 %					1	02/25/11 21:35	SW846 8270D	JLS	11B4858
Surr: Nitrobenzene-d5 (17-120%)	51 %					1	02/25/11 21:35	SW846 8270D	JLS	11B4858



Client EEG - Small Business Group, Inc. (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUB3244

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

ANALYTICAL REPORT

Aurabada	TD 14	TC!	Unito	MDI	MRL	Dilution		Mashad	Anabust	Datal
Analyte	Result	Flag	Units	MDL	MINL	Factor	Date/Time	Method	Analyst	Batch
Sample ID: NUB3244-02 (271 Bit	rch-2 - Soil) S	ampled:	02/15/11	10:45						
General Chemistry Parameters										
% Dry Solids	83.0		%	0.500	0.500	1	03/03/11 13:39	SW-846	AMS	11C0411
Volatile Organic Compounds by EPA	Method 8260E	3								
Benzene	ND		mg/kg dry	0.00114	0.00207	1	03/01/11 00:42	SW846 8260B	KxC	11B5954
Ethylbenzene	ND		mg/kg dry	0.00102	0.00207	1	03/01/11 00:42	SW846 8260B	KxC	11B5954
Naphthalene	ND		mg/kg dry	0.00176	0.00518	1	03/01/11 00:42	SW846 8260B	KxC	11B5954
Toluene	ND		mg/kg dry	0.000923	0.00207	1	03/01/11 00:42	SW846 8260B	KxC	11B5954
Xylenes, total	ND		mg/kg dry	0.00197	0.00518	1	03/01/11 00:42	SW846 8260B	KxC	11B5954
Surr: 1,2-Dichloroethane-d4 (67-138%)	102 %					1	03/01/11 00:42	SW846 8260B	KxC	11B595-
Surr: Dibromofluoromethane (75-125%)	99 %					1	03/01/11 00:42	SW846 8260B	KxC	11B595-
Surr: Toluene-d8 (76-129%)	106 %					1	03/01/11 00:42	SW846 8260B	KxC	11B595-
Surr: 4-Bromofluorobenzene (67-147%)	101 %					1	03/01/11 00:42	SW846 8260B	KxC	11B595-
Polyaromatic Hydrocarbons by EPA	8270D									
Acenaphthene	ND		mg/kg dry	0.0164	0.0783	1	02/25/11 21:57	SW846 8270D	ЛLS	11B4858
Acenaphthylene	ND		mg/kg dry	0.0234	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Anthracene	ND		mg/kg dry	0.0105	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Benzo (a) anthracene	ND		mg/kg dry	0.0128	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Benzo (a) pyrene	ND		mg/kg dry	0.00934	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Benzo (b) fluoranthene	ND		mg/kg dry	0.0444	0.0783	1	02/25/11 21:57	SW846 8270D	ЛLS	11B4858
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0105	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Benzo (k) fluoranthene	ND		mg/kg dry	0.0432	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Chrysene	ND		mg/kg dry	0.0362	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0175	0.0783	1	02/25/11 21:57	SW846 8270D	ЛLS	11B4858
Fluoranthene	ND		mg/kg dry	0.0128	0.0783	1	02/25/11 21:57	SW846 8270D	ЛLS	11B4858
Fluorene	ND		mg/kg dry	0.0234	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0362	0.0783	1	02/25/11 21:57	SW846 8270D	ЛLS	11B4858
Naphthalene	ND		mg/kg dry	0.0164	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Phenanthrene	ND		mg/kg dry	0.0117	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Pyrene	ND		mg/kg dry	0.0269	0.0783	1	02/25/11 21:57	SW846 8270D	ЛLS	11B4858
I-Methylnaphthalene	ND		mg/kg dry	0.0140	0.0783	1	02/25/11 21:57	SW846 8270D	JLS	11B4858
2-Methylnaphthalene	ND		mg/kg dry	0.0245	0.0783	1	02/25/11 21:57	SW846 8270D	ЛLS	11B4858
Surr: Terphenyl-d14 (18-120%)	66 %					1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Surr: 2-Fluorobiphenyl (14-120%)	62 %					1	02/25/11 21:57	SW846 8270D	JLS	11B4858
Surr: Nitrobenzene-d5 (17-120%)	59 %					1	02/25/11 21:57	SW846 8270D	JLS	11B4858



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUB3244

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

						Dilution	Analysis			
Analyte	Result	Flag	Units	MDL	MRL	Factor	Date/Time	Method	Analyst	Batch
Sample ID: NUB3244-03 (275 Bi	rch - Soil) San	npled: 0	2/16/11 11	:45						
General Chemistry Parameters										
% Dry Solids	74.0		%	0.500	0.500	1	03/03/11 13:39	SW-846	AMS	11C0411
Volatile Organic Compounds by EPA	A Method 8260E	3								
Benzene	ND		mg/kg dry	0.00133	0.00241	1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Ethylbenzene	ND		mg/kg dry	0.00118	0.00241	1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Naphthalene	0.0174		mg/kg dry	0.00205	0.00603	1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Toluene	ND		mg/kg dry	0.00107	0.00241	1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Xylenes, total	0.00268	J	mg/kg dry	0.00229	0.00603	1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Surr: 1,2-Dichloroethane-d4 (67-138%)	92 %					1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Surr: Dibromofluoromethane (75-125%)	93 %					1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Surr: Toluene-d8 (76-129%)	105 %					1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Surr: 4-Bromofluorobenzene (67-147%)	103 %					1	02/26/11 04:26	SW846 8260B	KxC	11B5164
Polyaromatic Hydrocarbons by EPA	8270D									
Acenaphthene	ND		mg/kg dry	0.0189	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Acenaphthylene	ND		mg/kg dry	0.0270	0.0904	1	02/25/11 22:20	SW846 8270D	ЛLS	11B4858
Anthracene	0.234		mg/kg dry	0.0121	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Benzo (a) anthracene	1.07		mg/kg dry	0.0148	0.0904	1	02/25/11 22:20	SW846 8270D	ЛLS	11B4858
Benzo (a) pyrene	0.472		mg/kg dry	0.0108	0.0904	1	02/25/11 22:20	SW846 8270D	ЛLS	11B4858
Benzo (b) fluoranthene	0.629		mg/kg dry	0.0513	0.0904	1	02/25/11 22:20	SW846 8270D	ЛLS	11B4858
Benzo (g,h,i) perylene	0.225		mg/kg dry	0.0121	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Benzo (k) fluoranthene	0.418		mg/kg dry	0.0499	0.0904	1	02/25/11 22:20	SW846 8270D	ЛLS	11B4858
Chrysene	0.704		mg/kg dry	0.0418	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Dibenz (a,h) anthracene	0.0594	J	mg/kg dry	0.0202	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Fluoranthene	1.98		mg/kg dry	0.0148	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Fluorene	0.0864	J	mg/kg dry	0.0270	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Indeno (1,2,3-cd) pyrene	0.165		mg/kg dry	0.0418	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Naphthalene	ND		mg/kg dry	0.0189	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Phenanthrene	1.18		· mg/kg dry	0.0135	0.0904	1	02/25/11 22;20	SW846 8270D	JLS	11B4858
Pyrene	1.76		mg/kg dry	0.0310	0.0904	1	02/25/11 22:20	SW846 8270D	JLS	11B4858
l-Methylnaphthalene	ND		mg/kg dry	0.0162	0.0904	1	02/25/11 22:20	SW846 8270D	ЛLS	11B4858
2-Methylnaphthalene	ND		mg/kg dry	0.0283	0.0904		02/25/11 22:20	SW846 8270D	JLS	11B4858
Surr: Terphenyl-d14 (18-120%)	54 %					1	02/25/11/22:20	SW846 8270D	JLS	11B4858
Surr: 2-Fluorobiphenyl (14-120%)	54 %					1	02/25/11 22:20	SW846 8270D	JLS	11B4858
Surr: Nitrobenzene-d5 (17-120%)	51 %					1	02/25/11 22:20	SW846 8270D	JLS	11B4858



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUB3244

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

						Dilution	Analysis			
Analyte	Result	Flag	Units	MDL	MRL	Factor	Date/Time	Method	Analyst	Batch
Sample ID: NUB3244-04 (292 B	irch - Soil) San	npled: (2/16/11 15	:30						
General Chemistry Parameters										
% Dry Solids	73.4		%	0.500	0.500	1	03/03/11 13:39	SW-846	AMS	11C0411
Volatile Organic Compounds by EP	A Method 8260E	3								
Benzene	0.00210	J	mg/kg dry	0.00121	0.00219	1	03/01/11 01:12	SW846 8260B	KxC	11B5954
Ethylbenzene	0.163		mg/kg dry	0.00107	0.00219	1	03/01/11 01:12	SW846 8260B	KxC	11B5954
Naphthalene	0.183		mg/kg dry	0.00186	0.00548	1	03/01/11 01:12	SW846 8260B	KxC	11B5954
Toluene	0,00388		mg/kg dry	0.000976	0.00219	1	03/01/11 01:12	SW846 8260B	KxC	11B5954
Xylenes, total	0.00804		mg/kg dry	0.00208	0.00548	1	03/01/11 01:12	SW846 8260B	KxC	11B5954
Surr: 1,2-Dichloroethane-d4 (67-138%)	107 %					1	03/01/11 01:12	SW846 8260B	KxC	11B5954
Surr: Dibromofluoromethane (75-125%)	100 %					1	03/01/11 01:12	SW846 8260B	KxC	11B5954
Surr: Toluene-d8 (76-129%)	124 %					I	03:01:11 01:12	SW846 8260B	KxC	11B5954
Surr: 4-Bromofluorobenzene (67-147%)	139 %					1	03/01/11 01:12	SW846 8260B	KxC	11B5954
Polyaromatic Hydrocarbons by EPA	. 8270D									
Acenaphthene	ND		mg/kg dry	0.0185	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Acenaphthylene	ND		mg/kg dry	0.0265	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Anthracene	0.168		mg/kg dry	0.0119	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Benzo (a) anthracene	ND		mg/kg dry	0.0146	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Benzo (a) pyrene	ND		mg/kg dry	0.0106	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Benzo (b) fluoranthene	ND		mg/kg dry	0.0503	0.0887	1	02/25/11 22:42	SW846 8270D	ЛLS	11B4858
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0119	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Benzo (k) fluoranthene	ND		mg/kg dry	0.0490	0.0887	1	02/25/11 22:42	SW846 8270D	ЛLS	11B4858
Chrysene	ND		mg/kg dry	0.0411	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0199	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Fluoranthene	ND		mg/kg dry	0.0146	0.0887	1	02/25/11 22:42	SW846 8270D	ЛLS	11B4858
Fluorene	ND		mg/kg dry	0.0265	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0411	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Naphthalene	0.187		mg/kg dry	0.0185	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Phenanthrene	0.170		mg/kg dry	0.0132	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Pyrene	0.0570	J	mg/kg dry	0.0305	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
1-Methylnaphthalene	0.494		mg/kg dry	0.0159	0.0887	1	02/25/11 22:42	SW846 8270D	JLS	11B4858
2-Methylnaphthalene	0.373		mg/kg dry	0.0278	0.0887	1	02/25/11 22:42	SW846 8270D	ЛLS	11B4858
Surr: Terphenyl-d14 (18-120%)	65 %					1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Surr: 2-Fluorobiphenyl (14-120%)	57 %					1	02/25/11 22:42	SW846 8270D	JLS	11B4858
Surr: Nitrobenzene-d5 (17-120%)	54 %					1	02/25/11 22:42	SW846 8270D	JLS	11B4858



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NUB3244

Project Name:

Laurel Bay Housing Project

Project Number:

[none]

Received:

02/19/11 08:35

Analyte	Result	Flag	Units	MDL	MRL	Dilution Factor	Analysis Date/Time	Method	Analyst	Batch
Sample ID: NUB3244-05 (284 B	Sirch-1 - Soil) S	ampled:	02/17/11	11:45						
General Chemistry Parameters										
% Dry Solids	83.2		%	0.500	0.500	1	03/03/11 13:39	SW-846	AMS	11C0411
Volatile Organic Compounds by EP	A Method 8260E	3								
Benzene	ND		mg/kg dry	0.00104	0.00190	1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Ethylbenzene	0.00327		mg/kg dry	0.000930	0.00190	1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Naphthalene	0.00944		mg/kg dry	0.00161	0.00475	1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Toluene	ND		mg/kg dry	0.000845	0.00190	1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Xylenes, total	ND		mg/kg dry	0.00180	0.00475	1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Surr: 1,2-Dichloroethane-d4 (67-138%)	90 %					1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Surr: Dibromofluoromethane (75-125%)	92 %					1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Surr: Toluene-d8 (76-129%)	112 %					1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Surr: 4-Bromofluorobenzene (67-147%)	126 %					1	02/26/11 05:27	SW846 8260B	KxC	11B5164
Polyaromatic Hydrocarbons by EPA	8270D									
Acenaphthene	ND		mg/kg dry	0.0166	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Acenaphthylene	ND		mg/kg dry	0.0237	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Anthracene	0.0674	J	mg/kg dry	0.0106	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Benzo (a) anthracene	0.118		mg/kg dry	0.0130	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Benzo (a) pyrene	0.0422	J	mg/kg dry	0.00946	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Benzo (b) fluoranthene	0.0564	J	mg/kg dry	0.0449	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0106	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Benzo (k) fluoranthene	0.0442	J	mg/kg dry	0.0438	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Chrysene	0.119		mg/kg dry	0.0367	0.0792	1	02/25/11 23:04	SW846 8270D	ЛLS	11B4858
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0177	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Fluoranthene	0.310		mg/kg dry	0.0130	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Fluorene	0.0911		mg/kg dry	0.0237	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0367	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Naphthalene	ND		mg/kg dry	0.0166	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Phenanthrene	0.361		mg/kg dry	0.0118	0.0792	1	02/25/11 23:04	SW846 8270D	ЛLS	11B4858
Pyrene	0.250		mg/kg dry	0.0272	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
I-Methylnaphthalene	ND		mg/kg dry	0.0142	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
2-Methylnaphthalene	0.130		mg/kg dry	0.0248	0.0792	1	02/25/11 23:04	SW846 8270D	JLS	11B4858
Surr: Terphenyl-d14 (18-120%)	62 %					I	02/25/11 23:04	SW846 8270D	JLS	11B4858
Surr: 2-Fluorobiphenyl (14-120%)	61 %					1	02 25 11 23:04	SW846 8270D	JLS	11B4858
Surr: Nitrobenzene-d5 (17-120%)	58 %					1	02/25/11 23:04	SW846 8270I)	JLS	11B4858



10179 Highway 78

Ladson, SC 29456 Tom McElwee

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Work Order:

NUB3244

Project Name:

Laurel Bay Housing Project

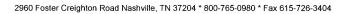
Project Number:

Received:

[none]

02/19/11 08:35

						Dilution	Analysis			
Analyte	Result	Flag	Units	MDL	MRL	Factor	Date/Time	Method	Analyst	Batch
Sample ID: NUB3244-06 (284 B	irch-2 - Soil) S	ampled:	02/17/11	15:00						
General Chemistry Parameters										
% Dry Solids	85.0		%	0,500	0.500	1	03/03/11 13:39	SW-846	AMS	11C0411
Volatile Organic Compounds by EP	A Method 8260B	}								
Benzene	ND		mg/kg dry	0.000969	0.00176	1	03/01/11 01:43	SW846 8260B	KxC	11B5954
Ethylbenzene	0.00174	J	mg/kg dry	0.000863	0.00176	1	03/01/11 01:43	SW846 8260B	KxC	11B5954
Naphthalene	0,00513		mg/kg dry	0.00150	0.00440	1	03/01/11 01:43	SW846 8260B	KxC	11B5954
Toluene	ND		mg/kg dry	0.000784	0.00176	1	03/01/11 01:43	SW846 8260B	KxC	11B5954
Xylenes, total	ND		mg/kg dry	0.00167	0.00440	1	03/01/11 01:43	SW846 8260B	KxC	11B5954
Surr: 1,2-Dichloroethane-d4 (67-138%)	96 %					1	03/01/11 01:43	SW846 8260B	KxC	11B5954
Surr: Dibromofluoromethane (75-125%)	94 %					1	03/01/11 01:43	SW846 8260B	KxC	11B5954
Surr: Toluene-d8 (76-129%)	111 %					1	03/01/11 01:43	SW846 8260B	KxC	11B5954
Surr: 4-Bromofluorobenzene (67-147%)	120 %					I	03:01:11 01:43	SW846 8260B	KxC	11B5954
Polyaromatic Hydrocarbons by EPA	8270D									
Acenaphthene	ND		mg/kg dry	0.0162	0.0774	1	02/25/11 23:26	SW846 8270D	ЛLS	11B4858
Acenaphthylene	ND		mg/kg dry	0.0231	0.0774	1	02/25/11 23:26	SW846 8270D	ЛLS	11B4858
Anthracene	ND		mg/kg dry	0.0104	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Benzo (a) anthracene	ND		mg/kg dry	0.0127	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Benzo (a) pyrene	ND		mg/kg dry	0.00924	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Benzo (b) fluoranthene	ND		mg/kg dry	0.0439	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0104	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Benzo (k) fluoranthene	ND		mg/kg dry	0.0427	0.0774	1	02/25/11 23:26	SW846 8270D	ЛLS	11B4858
Chrysene	ND		mg/kg dry	0.0358	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0173	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Fluoranthene	ND		mg/kg dry	0.0127	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Fluorene	ND		mg/kg dry	0.0231	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0358	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Naphthalene	ND		mg/kg dry	0.0162	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Phenanthrene	ND		mg/kg dry	0.0115	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
Pyrene	ND		mg/kg dry	0.0266	0.0774	1	02/25/11 23:26	SW846 8270D	JLS	11B4858
l-Methylnaphthalene	ND		mg/kg dry	0.0139	0.0774		02/25/11 23:26	SW846 8270D	JLS	11B4858
2-Methylnaphthalene	ND		mg/kg dry	0.0242	0.0774		02/25/11 23:26	SW846 8270D	ЛLS	11B4858
Surr: Terphenyl-d14 (18-120%)	63 %			•			02/25/11 23:26	SW846 8270D	JLS	11B4858
Surr: 2-Fluorobiphenyl (14-120%)	56 %					-	02/25/11 23:26	SW846 8270D	JLS	1184858
Surr: Nitrobenzene-d5 (17-120%)	57 %					1	02/25/11 23:26	SW846 8270D	JLS	11B4858





10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order: NUB3244

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

SAMPLE EXTRACTION DATA

	Wt/Vol				Extraction	
Batch	Lab Number	Extracted	Extract Vol	Date	Analyst	Method
D						
11B4858	NUB3244-01	30.04	1.00	02/24/11 12:30	CAG	EPA 3550C
11B4858	NUB3244-02	30.94	1.00	02/24/11 12:30	CAG	EPA 3550C
11B4858	NUB3244-03	30.05	1.00	02/24/11 12:30	CAG	EPA 3550C
11B4858	NUB3244-04	30.84	1.00	02/24/11 12:30	CAG	EPA 3550C
11B4858	NUB3244-05	30.48	1.00	02/24/11 12:30	CAG	EPA 3550C
11B4858	NUB3244-06	30.57	1.00	02/24/11 12:30	CAG	EPA 3550C
thod 8260B						
11B5164	NUB3244-01	6.54	5.00	02/14/11 16:00	СНН	EPA 5035
11B5164	NUB3244-02	5.66	5.00	02/15/11 10:45	СНН	EPA 5035
11B5954	NUB3244-02RE1	5.81	5,00	02/15/11 10:45	СНН	EPA 5035
11B5164	NUB3244-03	5.61	5.00	02/16/11 11:45	СНН	EPA 5035
11B5164	NUB3244-04	6.83	5.00	02/16/11 15:30	СНН	EPA 5035 .
11B5954	NUB3244-04RE1	6.21	5.00	02/16/11 15:30	СНН	EPA 5035
11B5164	NUB3244-05	6.33	5.00	02/17/11 11:45	СНН	EPA 5035
11B5164	NUB3244-06	6.33	5.00	02/17/11 15:00	СНН	EPA 5035
11B5954	NUB3244-06RE1	6.68	5.00	02/17/11 15:00	СНН	EPA 5035
	D 11B4858 11B4858 11B4858 11B4858 11B4858 11B4858 11B4858 11B5164 11B5164 11B5954 11B5164 11B5954 11B5164 11B5954 11B5164	D 11B4858 NUB3244-01 11B4858 NUB3244-02 11B4858 NUB3244-03 11B4858 NUB3244-04 11B4858 NUB3244-05 11B4858 NUB3244-06 11B5164 NUB3244-01 11B5164 NUB3244-02 11B5954 NUB3244-02 11B5164 NUB3244-03 11B5164 NUB3244-04 11B5954 NUB3244-04 11B5954 NUB3244-04 11B5954 NUB3244-05 11B5164 NUB3244-04 11B5954 NUB3244-05 11B5164 NUB3244-05 11B5164 NUB3244-05	Batch Lab Number Extracted D 11B4858 NUB3244-01 30.04 11B4858 NUB3244-02 30.94 11B4858 NUB3244-03 30.05 11B4858 NUB3244-04 30.84 11B4858 NUB3244-05 30.48 11B4858 NUB3244-06 30.57 chod 8260B Chod 8260B 5.66 11B5164 NUB3244-01 6.54 11B5164 NUB3244-02 5.66 11B5164 NUB3244-03 5.61 11B5164 NUB3244-04 6.83 11B5954 NUB3244-04RE1 6.21 11B5164 NUB3244-05 6.33 11B5164 NUB3244-06 6.33	Batch Lab Number Extracted Extract Vol D 11B4858 NUB3244-01 30.04 1.00 11B4858 NUB3244-02 30.94 1.00 11B4858 NUB3244-03 30.05 1.00 11B4858 NUB3244-04 30.84 1.00 11B4858 NUB3244-05 30.48 1.00 11B4858 NUB3244-06 30.57 1.00 chod 8260B 11B5164 NUB3244-01 6.54 5.00 11B5164 NUB3244-02 5.66 5.00 11B5164 NUB3244-02RE1 5.81 5.00 11B5164 NUB3244-03 5.61 5.00 11B5164 NUB3244-04 6.83 5.00 11B5954 NUB3244-04RE1 6.21 5.00 11B5164 NUB3244-05 6.33 5.00 11B5164 NUB3244-06 6.33 5.00	Batch Lab Number Extracted Extract Vol Date D 11B4858 NUB3244-01 30.04 1.00 02/24/11 12:30 11B4858 NUB3244-02 30.94 1.00 02/24/11 12:30 11B4858 NUB3244-03 30.05 1.00 02/24/11 12:30 11B4858 NUB3244-04 30.84 1.00 02/24/11 12:30 11B4858 NUB3244-05 30.48 1.00 02/24/11 12:30 11B4858 NUB3244-06 30.57 1.00 02/24/11 12:30 1:hod 8260B 11B5164 NUB3244-01 6.54 5.00 02/14/11 16:00 1:1B5164 NUB3244-02 5.66 5.00 02/15/11 10:45 1:1B5164 NUB3244-03 5.61 5.00 02/15/11 10:45 1:1B5164 NUB3244-04 6.83 5.00 02/16/11 15:30 1:1B5954 NUB3244-04 6.83 5.00 02/16/11 15:30	Batch Lab Number Extracted Extract Vol Date Analyst D 11B4858 NUB3244-01 30.04 1.00 02/24/11 12:30 CAG 11B4858 NUB3244-02 30.94 1.00 02/24/11 12:30 CAG 11B4858 NUB3244-03 30.05 1.00 02/24/11 12:30 CAG 11B4858 NUB3244-04 30.84 1.00 02/24/11 12:30 CAG 11B4858 NUB3244-05 30.48 1.00 02/24/11 12:30 CAG 11B4858 NUB3244-06 30.57 1.00 02/24/11 12:30 CAG 11B458 NUB3244-06 30.57 1.00 02/24/11 12:30 CAG 11B5164 NUB3244-01 6.54 5.00 02/14/11 16:00 CHH 11B5164 NUB3244-02 5.66 5.00 02/15/11 10:45 CHH 11B5164 NUB3244-03 5.61 5.00 02/16/11 11:45



10179 Highway 78 Ladson, SC 29456

Ladson, SC 29456 Tom McElwee

Attn

Work Order: NUB3244

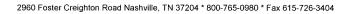
Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

PROJECT QUALITY CONTROL DATA Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time	
Volatile Organic Compounds by	EPA Method 8260B						
11B5164-BLK1							
Benzene	< 0.00110		mg/kg wet	11B5164	11B5164-BLK1	02/25/11 22:50	
Ethylbenzene	< 0.000980		mg/kg wet	11B5164	11B5164-BLK1	02/25/11 22:50	
Naphthalene	< 0.00170		mg/kg wet	11B5164	11B5164-BLK1	02/25/11 22:50	
Toluene	< 0.000890		mg/kg wet	11B5164	11B5164-BLK1	02/25/11 22:50	
Xylenes, total	< 0.00190		mg/kg wet	11B5164	11B5164-BLK1	02/25/11 22:50	
Surrogate: 1,2-Dichloroethane-d4	101%			11B5164	11B5164-BLK1	02/25/11 22:50	
Surrogate: Dibromofluoromethane	96%			11B5164	11B5164-BLK1	02/25/11 22:50	
Surrogate: Toluene-d8	106%			11B5164	11B5164-BLK1	02/25/11 22:50	
Surrogate: 4-Bromofluorobenzene	104%			11B5164	11B5164-BLK1	02/25/11 22:50	
11B5954-BLK1							
Benzene	< 0.00110		mg/kg wet	11B5954	11B5954-BLK1	02/28/11 23:41	
Ethylbenzene	< 0.000980		mg/kg wet	11B5954	11B5954-BLK1	02/28/11 23:41	
Naphthalene	< 0.00170		mg/kg wet	11B5954	11B5954-BLK1	02/28/11 23:41	
Toluene	< 0.000890		mg/kg wet	11B5954	11B5954-BLK1	02/28/11 23:41	
Xylenes, total	< 0.00190		mg/kg wet	11B5954	11B5954-BLK1	02/28/11 23:41	
Surrogate: 1,2-Dichloroethane-d4	105%			11B5954	11B5954-BLK1	02/28/11 23:41	
Surrogate: Dibromofluoromethane	100%			11B5954	11B5954-BLK1	02/28/11 23:41	
Surrogate: Toluene-d8	105%			11B5954	11B5954-BLK1	02/28/11 23:41	
Surrogate: 4-Bromofluorobenzene	104%			11B5954	11B5954-BLK1	02/28/11 23:41	
11B5954-BLK2							
Benzene	< 0.0550		mg/kg wet	11B5954	11B5954-BLK2	03/01/11 00:11	
Ethylbenzene	< 0.0490		mg/kg wet	11B5954	11B5954-BLK2	03/01/11 00:11	
Naphthalene	< 0.0850		mg/kg wet	11B5954	11B5954-BLK2	03/01/11 00:11	
Toluene	< 0.0445		mg/kg wet	11B5954	11B5954-BLK2	03/01/11 00:11	
Xylenes, total	< 0.0950		mg/kg wet	11B5954	11B5954-BLK2	03/01/11 00:11	
Surrogate: 1,2-Dichloroethane-d4	92%			11B5954	11B5954-BLK2	03/01/11 00:11	
Surrogate: Dibromofluoromethane	95%			11B5954	11B5954-BLK2	03/01/11 00:11	
Surrogate: Toluene-d8	110%			11B5954	11B5954-BLK2	03/01/11 00:11	
urrogate: 4-Bromofluorobenzene	104%			11B5954	11B5954-BLK2	03/01/11 00:11	
Polyaromatic Hydrocarbons by E	PA 8270D						
1B4858-BLK1							
Acenaphthene	< 0.0140		mg/kg wet	11B4858	11B4858-BLK1	02/25/11 20:06	
Acenaphthylene	< 0.0200		mg/kg wet	11B4858	11B4858-BLK1	02/25/11 20:06	
Anthracene	< 0.00900		mg/kg wet	11B4858	11B4858-BLK1	02/25/11 20:06	
Benzo (a) anthracene	< 0.0110		mg/kg wet	11B4858	11B4858-BLK1	02/25/11 20:06	
Benzo (a) pyrene	< 0.00800		mg/kg wet	11B4858	11B4858-BLK1	02/25/11 20:06	
Benzo (b) fluoranthene	< 0.0380		mg/kg wet	11B4858	11B4858-BLK1	02/25/11 20:06	
Benzo (g,h,i) perylene	< 0.00900		mg/kg wet	11B4858	11B4858-BLK1	02/25/11 20:06	
Benzo (k) fluoranthene	< 0.0370		mg/kg wet	11B4858	11B4858-BLK1	02/25/11 20:06	





10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order: NUB3244

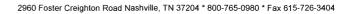
Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

PROJECT QUALITY CONTROL DATA Blank - Cont.

nalyte Q Units Q.C. Batch Lab Number Analyzed Date/T
olyaromatic Hydrocarbons by EPA 8270D
1B4858-BLK1
Chrysene <0.0310 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
Dibenz (a,h) anthracene <0.0150 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
Fluoranthene <0.0110 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
Fluorene <0.0200 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
ndeno (1,2,3-cd) pyrene <0.0310 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
Raphthalene <0.0140 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
henanthrene <0.0100 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
yrene <0.0230 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
-Methylnaphthalene <0.0120 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
-Methylnaphthalene <0.0210 mg/kg wet 11B4858 11B4858-BLK1 02/25/11 20:0
rrogate: Terphenyl-d14 67% 11B4858 11B4858-BLK1 02/25/11 20:0
rogate: 2-Fluorobiphenyl 65% 11B4858 11B4858-BLK1 02/25/11 20:0
rrogate: Nitrobenzene-d5 63% 11B4858 11B4858-BLK1 02/25/11 20:0





10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order:

NUB3244

Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

PROJECT QUALITY CONTROL DATA

Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters 11C0411-DUP1										
% Dry Solids	53.7	49.6		%	8	20	11C0411	NUB3035-05		03/03/11 13:39

NUB3244



EEG - Small Business Group, Inc. (2449) Client

> 10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

Project Name:

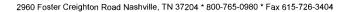
Laurel Bay Housing Project

[none] Project Number:

02/19/11 08:35 Received:

PROJECT QUALITY CONTROL DATA LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Volatile Organic Compounds by EPA	A Method 8260B						·	
11B5164-BS1								
Benzene	50.0	46.5		ug/kg	93%	78 - 126	11B5164	02/25/11 21:47
Ethylbenzene	50.0	48.3		ug/kg	97%	79 - 130	11B5164	02/25/11 21:47
Naphthalene	50.0	47.5		ug/kg	95%	72 - 150	11B5164	02/25/11 21:47
Toluene	50,0	47.4		ug/kg	95%	76 - 126	11B5164	02/25/11 21:47
Xylenes, total	150	145		ug/kg	97%	80 - 130	11B5164	02/25/11 21:47
Surrogate: 1,2-Dichloroethane-d4	50.0	53.8			108%	67 - 138	11B5164	02/25/11 21:47
Surrogate: Dibromofluoromethane	50.0	49.3			99%	75 - 125	11B5164	02/25/11 21:47
Surrogate: Toluene-d8	50.0	51.5			103%	76 - 129	11B5164	02/25/11 21:47
Surrogate: 4-Bromofluorobenzene	50.0	52.0			104%	67 - 147	11B5164	02/25/11 21:47
11B5954-BS1								
Benzene	50.0	50.5		ug/kg	101%	78 - 126	11B5954	02/28/11 22:40
Ethylbenzene	50.0	54.6		ug/kg	109%	79 - 130	11B5954	02/28/11 22:40
Naphthalene	50.0	52.2		ug/kg	104%	72 - 150	11B5954	02/28/11 22:40
Toluene	50.0	52.6		ug/kg	105%	76 - 126	11B5954	02/28/11 22:40
Xylenes, total	150	165		ug/kg	110%	80 - 130	11B5954	02/28/11 22:40
Surrogate: 1,2-Dichloroethane-d4	50.0	55.5			111%	67 - 138	11B5954	02/28/11 22:40
Surrogate: Dibromofluoromethane	50.0	49.3			99%	75 - 125	11B5954	02/28/11 22:40
Surrogate: Toluene-d8	50.0	52.8			106%	76 - 129	11B5954	02/28/11 22:40
Surrogate: 4-Bromofluorobenzene	50.0	51.9			104%	67 - 147	11B5954	02/28/11 22:40
Polyaromatic Hydrocarbons by EPA	8270D							
11B4858-BS1								
Acenaphthene	1.67	1.19		mg/kg wet	71%	49 - 120	11B4858	02/25/11 20:29
Acenaphthylene	1.67	1.21		mg/kg wet	72%	52 - 120	11B4858	02/25/11 20:29
Anthracene	1.67	1.32		mg/kg wet	79%	58 - 120	11B4858	02/25/11 20:29
Benzo (a) anthracene	1.67	1.26		mg/kg wet	75%	57 - 120	11B4858	02/25/11 20:29
Benzo (a) pyrene	1.67	1.27		mg/kg wet	76%	55 - 120	11B4858	02/25/11 20:29
Benzo (b) fluoranthene	1.67	1.30		mg/kg wet	78%	51 - 123	11B4858	02/25/11 20:29
Benzo (g,h,i) perylene	1.67	1.27		mg/kg wet	76%	49 - 121	11B4858	02/25/11 20:29
Benzo (k) fluoranthene	1.67	1.23		mg/kg wet	74%	42 - 129	11B4858	02/25/11 20:29
Chrysene	1.67	1.27		mg/kg wet	76%	55 - 120	11B4858	02/25/11 20:29
Dibenz (a,h) anthracene	1.67	1.27		mg/kg wet	76%	50 - 123	11B4858	02/25/11 20:29
Fluoranthene	1.67	1.27		mg/kg wet	76%	58 - 120	11B4858	02/25/11 20:29
Fluorene	1.67	1.24		mg/kg wet	75%	54 - 120	11B4858	02/25/11 20:29
Indeno (1,2,3-cd) pyrene	1.67	1.25		mg/kg wet	75%	50 - 122	11B4858	02/25/11 20:29
Naphthalene	1.67	1.10		mg/kg wet	66%	28 - 120	11B4858	02/25/11 20:29
Phenanthrene	1.67	1.31		mg/kg wet	78%	56 - 120	11B4858	02/25/11 20:29
Pyrene	1.67	1.32		mg/kg wet	79%	56 - 120	11B4858	02/25/11 20:29
1-Methylnaphthalene	1.67	0.986		mg/kg wet	59%	36 - 120	11B4858	02/25/11 20:29
2-Methylnaphthalene	1.67	1.10		mg/kg wet	66%	36 - 120	11B4858	02/25/11 20:29



NUB3244

Laurel Bay Housing Project



Client EEG - Small Business Group, Inc. (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

nc. (2449) Work Order:
Project Name:

Project Number: [none]

Received: 02/19/11 08:35

PROJECT QUALITY CONTROL DATA LCS - Cont.

wn Val. Analyzed V	Val Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
.67 1.11			66%	18 - 120	11B4858	02/25/11 20:29
.67 1.10			66%	14 - 120	11B4858	02/25/11 20:29
.67 0.973			58%	17 - 120	11B4858	02/25/11 20:29
	67 1.11 67 1.10	67 1.11 67 1.10	67 1.11 67 1.10	67 1.11 66% 67 1.10 66%	7n Val. Analyzed Val Q Units % Rec. Range 67 1.11 66% 18 - 120 67 1.10 66% 14 - 120	7n Val. Analyzed Val Q Units % Rec. Range Batch 67 1.11 66% 18 - 120 11B4858 67 1.10 66% 14 - 120 11B4858



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order: NUB3244

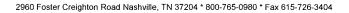
Project Name: Laurel Bay Housing Project

Project Number: [none]

Received: 02/19/11 08:35

PROJECT QUALITY CONTROL DATA Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
		ΔD			•					
Volatile Organic Compounds by 1 11B5164-MS1	EFA MEIHOU 620	VD								
Benzene	ND	0.0415		mg/kg dry	0.0488	85%	42 - 141	11B5164	NUB3432-07	02/26/11 06:29
Ethylbenzene	ND	0.0441		mg/kg dry	0.0488	90%	21 - 165	11B5164	NUB3432-07	02/26/11 06:29
Naphthalene	ND	0.0110		mg/kg dry	0.0488	23%	10 - 160	11B5164	NUB3432-07	02/26/11 06:29
Toluene	ND	0.0456		mg/kg dry	0.0488	93%	45 - 145	11B5164	NUB3432-07	02/26/11 06:29
Xylenes, total	ND	0.126		mg/kg dry	0.146	86%	31 - 159	11B5164	NUB3432-07	02/26/11 06:29
Surrogate: 1,2-Dichloroethane-d4		49.3		ug/kg	50.0	99%	67 - 138	11B5164	NUB3432-07	02/26/11 06:29
Surrogate: Dibromofluoromethane		47.6		ug/kg	50.0	95%	75 - 125	11B5164	NUB3432-07	02/26/11 06:29
Surrogate: Toluene-d8		56.2		ug/kg	50.0	112%	76 - 129	11B5164	NUB3432-07	02/26/11 06:29
Surrogate: 4-Bromofluorobenzene		59.8		ug/kg	50.0	120%	67 - 147	11B5164	NUB3432-07	02/26/11 06:29
11B5954-MS1										
Benzene	ND	0.0415		mg/kg dry	0.0580	72%	42 - 141	11B5954	NUB3481-01	03/01/11 20:41
Ethylbenzene	ND	0.0488		mg/kg dry	0.0580	84%	21 - 165	11B5954	NUB3481-01	03/01/11 20:41
Naphthalene	0.00209	0.0353		mg/kg dry	0.0580	57%	10 - 160	11B5954	NUB3481-01	03/01/11 20:41
Toluene	ND	0.0479		mg/kg dry	0.0580	83%	45 - 145	11B5954	NUB3481-01	03/01/11 20:41
Xylenes, total	ND	0.149		mg/kg dry	0.174	86%	31 - 159	11B5954	NUB3481-01	03/01/11 20:41
Surrogate: 1,2-Dichloroethane-d4		44.5		ug/kg	50.0	89%	67 - 138	11B5954	NUB3481-01	03/01/11 20:41
Surrogate: Dibromofluoromethane		45.4		ug/kg	50.0	91%	75 - 125	11B5954	NUB3481-01	03/01/11 20:41
Surrogate: Toluene-d8		54.9		ug/kg	50.0	110%	76 - 129	11B5954	NUB3481-01	03/01/11 20:41
Surrogate: 4-Bromofluorobenzene		51.9		ug/kg	50.0	104%	67 - 147	11B5954	NUB3481-01	03/01/11 20:41
Polyaromatic Hydrocarbons by E	PA 8270D		•							
11B4858-MS1										
Acenaphthene	ND	1.26		mg/kg dry	1.95	65%	42 - 120	11B4858	NUB3244-01	02/25/11 20:51
Acenaphthylene	ND	1.26		mg/kg dry	1.95	65%	32 - 120	11B4858	NUB3244-01	02/25/11 20:51
Anthracene	ND	1.38		mg/kg dry	1.95	71%	10 - 200	11B4858	NUB3244-01	02/25/11 20:51
Benzo (a) anthracene	ND	1.36		mg/kg dry	1.95	70%	41 - 120	11B4858	NUB3244-01	02/25/11 20:51
Benzo (a) pyrene	ND	1.36		mg/kg dry	1.95	69%	33 - 121	11B4858	NUB3244-01	02/25/11 20:51
Benzo (b) fluoranthene	ND	1.34		mg/kg dry	1.95	68%	26 - 137	11B4858	NUB3244-01	02/25/11 20:51
Benzo (g,h,i) perylene	ND	1.36		mg/kg dry	1.95	70%	21 - 124	11B4858	NUB3244-01	02/25/11 20:51
Benzo (k) fluoranthene	ND	1.39		mg/kg dry	1.95	71%	14 - 140	11B4858	NUB3244-01	02/25/11 20:51
Chrysene	ND	1.36		mg/kg dry	1.95	70%	28 - 123	11B4858	NUB3244-01	02/25/11 20:51
Dibenz (a,h) anthracene	ND	1.37		mg/kg dry	1.95	70%	25 - 127	11B4858	NUB3244-01	02/25/11 20:51
Fluoranthene	ND	1.36		mg/kg dry	1.95	70%	38 - 120	11B4858	NUB3244-01	02/25/11 20:51
Fluorene	ND	1.33		mg/kg dry	1.95	68%	41 - 120	11B4858	NUB3244-01	02/25/11 20:51
Indeno (1,2,3-cd) pyrene	ND	1.36		mg/kg dry	1.95	69%	25 - 123	11B4858	NUB3244-01	02/25/11 20:51
Naphthalene	ND	1.17		mg/kg dry	1.95	60%	25 - 120	11B4858	NUB3244-01	02/25/11 20:51
Phenanthrene	ND	1.40		mg/kg dry	1.95	72%	37 - 120	11B4858	NUB3244-01	02/25/11 20:51





10179 Highway 78

Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NUB3244

Project Name:

Laurel Bay Housing Project

Project Number: [none]

Received:

02/19/11 08:35

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 E	PA 8270D								
11B4858-MS1									
Pyrene	ND	1.42	mg/kg dry	1.95	73%	29 - 125	11B4858	NUB3244-01	02/25/11 20:51
1-Methylnaphthalene	ND	1.05	mg/kg dry	1.95	54%	19 - 120	11B4858	NUB3244-01	02/25/11 20:51
2-Methylnaphthalene	ND	1.15	mg/kg dry	1.95	59%	11 - 120	11B4858	NUB3244-01	02/25/11 20:51
Surrogate: Terphenyl-d14		1.18	mg/kg dry	1.95	60%	18 - 120	11B4858	NUB3244-01	02/25/11 20:51
Surrogate: 2-Fluorobiphenyl		1.12	mg/kg dry	1.95	57%	14 - 120	11B4858	NUB3244-01	02/25/11 20:51
Surrogate: Nitrobenzene-d5		1.03	mg/kg dry	1.95	53%	17 - 120	11B4858	NUB3244-01	02/25/11 20:51



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

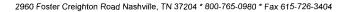
Work Order: NUB3244

Project Name: Laurel Bay Housing Project

Project Number: [none]
Received: 02/19/11 08:35

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
Volatile Organic Compounds by I	EPA Method 8	3260B										
11B5164-MSD1												
Benzene	ND	0.0472		mg/kg dry	0.0538	88%	42 - 141	13	50	11B5164	NUB3432-07	02/26/11 06:59
Ethylbenzene	ND	0.0500		mg/kg dry	0.0538	93%	21 - 165	12	50	11B5164	NUB3432-07	02/26/11 06:59
Naphthalene	ND	0.0119		mg/kg dry	0.0538	22%	10 - 160	8	50	11B5164	NUB3432-07	02/26/11 06:59
Toluene	ND	0.0533		mg/kg dry	0.0538	99%	45 - 145	16	50	11B5164	NUB3432-07	02/26/11 06:59
Xylenes, total	ND	0.143		mg/kg dry	0.161	88%	31 - 159	12	50	11B5164	NUB3432-07	02/26/11 06:59
Surrogate: 1,2-Dichloroethane-d4		42.0		ug/kg	50.0	84%	67 - 138			11B5164	NUB3432-07	02/26/11 06:59
Surrogate: Dibromofluoromethane		44.5		ug/kg	50.0	89%	75 - 125			11B5164	NUB3432-07	02/26/11 06:59
Surrogate: Toluene-d8		59.6		ug/kg	50.0	119%	76 - 129			11B5164	NUB3432-07	02/26/11 06:59
Surrogate: 4-Bromofluorobenzene		64.7		ug/kg	50.0	129%	67 - 147			11B5164	NUB3432-07	02/26/11 06:59
11B5954-MSD1										•		
Benzene	ND	0.0344		mg/kg dry	0.0532	65%	42 - 141	19	50	11B5954	NUB3481-01	03/01/11 21:11
Ethylbenzene	ND	0.0376		mg/kg dry	0.0532	71%	21 - 165	26	50	11B5954	NUB3481-01	03/01/11 21:11
Naphthalene	0.00209	0.0262		mg/kg dry	0.0532	45%	10 - 160	30	50	11B5954	NUB3481-01	03/01/11 21:11
Toluene	ND	0.0377		mg/kg dry	0.0532	71%	45 - 145	24	50	11B5954	NUB3481-01	03/01/11 21:11
Xylenes, total	ND	0.114		mg/kg dry	0.160	71%	31 - 159	27	50	11B5954	NUB3481-01	03/01/11 21:11
Surrogate: 1,2-Dichloroethane-d4		46.5		ug/kg	50.0	93%	67 - 138			11B5954	NUB3481-01	03/01/11 21:11
Surrogate: Dibromofluoromethane		47.8		ug/kg	50.0	96%	75 - 125			11B5954	NUB3481-01	03/01/11 21:11
Surrogate: Toluene-d8		52.6		ug/kg	50.0	105%	76 - 129			11B5954	NUB3481-01	03/01/11 21:11
Surrogate: 4-Bromofluorobenzene		53.1		ug/kg	50.0	106%	67 - 147			11B5954	NUB3481-01	03/01/11 21:11
Polyaromatic Hydrocarbons by El	PA 8270D											
11B4858-MSD1							•					
Acenaphthene	ND	1.24		mg/kg dry	2,00	62%	42 - 120	2	40	11B4858	NUB3244-01	02/25/11 21:13
Acenaphthylene	ND	1.26		mg/kg dry	2.00	63%	32 - 120	0.6	30	11B4858	NUB3244-01	02/25/11 21:13
Anthracene	ND	1.38		mg/kg dry	2.00	69%	10 - 200	0.02	50	11B4858	NUB3244-01	02/25/11 21:13
Benzo (a) anthracene	ND	1.35		mg/kg dry	2.00	67%	41 - 120	1	30	11B4858	NUB3244-01	02/25/11 21:13
Benzo (a) pyrene	ND	1.32		mg/kg dry	2.00	66%	33 - 121	. 3	33	11B4858	NUB3244-01	02/25/11 21:13
Benzo (b) fluoranthene	ND	1.43		mg/kg dry	2.00	72%	26 - 137	7	42	11B4858	NUB3244-01	02/25/11 21:13
Benzo (g,h,i) perylene	ND	1.34		mg/kg dry	2.00	67%	21 - 124	1	32	11B4858	NUB3244-01	02/25/11 21:13
Benzo (k) fluoranthene	ND	1.22		mg/kg dry	2.00	61%	14 - 140	13	39	11B4858	NUB3244-01	02/25/11 21:13
Chrysene	ND	1.36		mg/kg dry	2.00	68%	28 - 123	0.5	34	11B4858	NUB3244-01	02/25/11 21:13
Dibenz (a,h) anthracene	ND	1.33		mg/kg dry	2.00	67%	25 - 127	3	31	11B4858	NUB3244-01	02/25/11 21:13
Fluoranthene	ND	1.34		mg/kg dry	2.00	67%	38 - 120	1	35	11B4858	NUB3244-01	02/25/11 21:13
Fluorene	ND	1,31		mg/kg dry	2.00	65%	41 - 120	2	37	11B4858	NUB3244-01	02/25/11 21:13
Indeno (1,2,3-cd) pyrene	ND	1.32		mg/kg dry	2.00	66%	25 - 123	3	32	11B4858	NUB3244-01	02/25/11 21:13
Naphthalene	ND	1.18		mg/kg dry	2.00	59%	25 - 120	0.9	42	11B4858	NUB3244-01	02/25/11 21:13
Phenanthrene	ND	1.39		mg/kg dry	2.00	70%	37 - 120	0.4	32	11B4858	NUB3244-01	02/25/11 21:13
Pyrene	ND	1.41		mg/kg dry	2.00	70%	29 - 125	1	40	11B4858	NUB3244-01	02/25/11 21:13
1-Methylnaphthalene	ND	1.06		mg/kg dry	2.00	53%	19 - 120	0.6	45	11B4858	NUB3244-01	02/25/11 21:13
2-Methylnaphthalene	ND	1.16		mg/kg dry	2.00	58%	11 - 120	0.9	50	11B4858	NUB3244-01	02/25/11 21:13





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NUB3244

Project Name:

Laurel Bay Housing Project

Project Number:

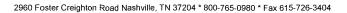
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Received:

02/19/11 08:35

PROJECT QUALITY CONTROL DATA Matrix Spike Dup - Cont.

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD Limit	Batch	Sample Duplicated	Analyzed Date/Time
Polyaromatic Hydrocarbons by EPA 11B4858-MSD1	A 8270D										
Surrogate: Terphenyl-dl4		1.18		mg/kg dry	2.00	59%	18 - 120		11B4858	NUB3244-01	02/25/11 21:13
Surrogate: 2-Fluorobiphenyl		1.13		mg/kg dry	2.00	56%	14 - 120		11B4858	NUB3244-01	02/25/11 21:13
Surrogate: Nitrobenzene-d5		0.995		mg/kg dry	2.00	50%	17 - 120		11B4858	NUB3244-01	02/25/11 21:13





10179 Highway 78

Ladson, SC 29456

Tom McElwee

10170 W. 1 70

Work Order:

NUB3244

Project Name:

Laurel Bay Housing Project

Project Number:

[none]

Received:

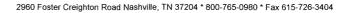
02/19/11 08:35

CERTIFICATION SUMMARY

TestAmerica Nashville

Attn

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





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NUB3244

Project Name:

Laurel Bay Housing Project

Project Number:

Received:

[none] 02/19/11 08:35

DATA QUALIFIERS AND DEFINITIONS

J Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

Concentrations within this range are estimated.

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

METHOD MODIFICATION NOTES

TestAmer		Nashville 2960 Fost Nashville,	er Crei	ghtor	1			т	oll f	ree	: 80	5-72(0-76: 5-72(5-09	80							meth		this wo	ork bei	proper a					
Client Name/Account #:	EEG - SBG # 24	149															_							Comp	liance N	d onito	ring?		Yes_	 No
Address:	10179 Highway	78															_							Enfo	rcemer	nt Actio	on?		Yes	 No
City/State/Zip:	Ladson, SC 294	56															=		Site	State:	SC									
Project Manager:	Tom McElwee e	mail: mcelw	ee@ee	ginc.n	et											_				PO#:		10	2 「	1						
Telephone Number:	843.412.2097					Fa	x No	s.: (8	(2)	8	7	7-	0	40	/	_		TA Qu	ote #:										
Sampler Name: (Print)	PRA	HS.	hai	v				_									_		Proje	ect ID:	Laure	el Bay I	lousin	g Proje	ect					
Sampler Signature:		PUL					-										-			ect #:					····					
	·····					Ī			Pres	serva	tive		त्त		M	latrix							-	Analyz	e For:					Ī
Sample 1D/Description 271 B) Rch -1 271 B; Rch -2 275 B) Rch 292 B, Rch 284 B; Rch -1 284 B; Rch -2	2/14/11 2/15/11 2/16/11 2/17/11 2/17/11	1600 1045 1145 1530 1145	Special Schipped (Containers Shipped	X X X X X	Composite	Field Filtered	90]	HNO ₃ (Red Label)	THE PROPERTY OF THE PROPERTY O	Nach (Usange Label) H,SO, Plestic (Yellow Label)	H ₂ SO ₄ Glass(Yellow Label)	ひんない A None (Black Label)	j. 7 l.	Groundwater	Wastewater Orinking Water	- Sepais			XXXX BTEX + Napth - 8260	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX						N	3 3		02 03 04 05	RUSH TAT (Pre-Schedule)
		 -		-			\dashv	+		Ŧ	\mp	F	Ħ	+	_	╁	+	\vdash	=			 	+	-		+	\dashv	\dashv	-	 \vdash
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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 275Birch, 275 Birch Drive, Laurel Bay Housing Area, MCAS Beaufort, S.C.

DISPOSAL LOCATION

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

TYPE OF TANK	SIZE (GAL)
Steel	280

CLEANING/DISPOSAL METHOD

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

DISPOSAL CERTIFICATION

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

 $\frac{1}{1} \frac{4}{13} \frac{1}{11}$ (Name) (Date)

Appendix C Laboratory Analytical Report - Groundwater



Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB275TW01WG20151106

Matrix: Aqueous

89321

Laboratory ID: QK05015-016

Date Sampled: 11/06/2015 1225 Date Received: 11/06/2015

5030B

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

	CAS	Analytical						
Parameter	Number	Method	Result	Q	LOQ	LOD	DL	Units Run
Benzene	71-43-2	8260B	0.45	U	5.0	0.45	0.21	ug/L 1
Ethylbenzene	100-41-4	8260B	0.25	J	5.0	0.51	0.21	ug/L 1
Naphthalene	91-20-3	8260B	4.2	J	5.0	0.96	0.14	ug/L 1
Toluene	108-88-3	8260B	0.48	U	5.0	0.48	0.24	ug/L 1
Xylenes (total)	1330-20-7	8260B	0.57	U	5.0	0.57	0.32	ug/L 1

11/11/2015 1635 ALL

Surrogate	Run 1 A Q % Recovery	Acceptance Limits
Bromofluorobenzene	95	75-120
1,2-Dichloroethane-d4	98	70-120
Toluene-d8	97	85-120
Dibromofluoromethane	100	85-115

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank

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

H = Out of holding time

Q = Surrogate failure L = LCS/LCSD failure

 $J = Estimated result < PQL and <math>\geq MDL$ Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria

S = MS/MSD failure

Semivolatile Organic Compounds by GC/MS (SIM)

Client: AECOM - Resolution Consultants

Laboratory ID: QK05015-016

Description: BEALB275TW01WG20151106

Date Sampled: 11/06/2015 1225 Date Received: 11/06/2015

Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date Analyst	Prep Date Batch
1	3520C	8270D (SIM)	1	11/18/2015 1030 RBH	11/10/2015 1444 89221

_	CAS	Analytical							_
Parameter	Number	Method	Result	Q	LOQ	LOD	DL	Units R	un
Benzo(a)anthracene	56-55-3	8270D (SIM)	0.040	U	0.20	0.040	0.019	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D (SIM)	0.040	U	0.20	0.040	0.019	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D (SIM)	0.040	U	0.20	0.040	0.024	ug/L	1
Chrysene	218-01-9	8270D (SIM)	0.040	U	0.20	0.040	0.021	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D (SIM)	0.080	U	0.20	0.080	0.040	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Methylnaphthalene-d10		76	15-139
Fluoranthene-d10		50	23-154

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank

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

H = Out of holding time

Q = Surrogate failure

 $J = Estimated result < PQL and <math>\geq MDL$ Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

N = Recovery is out of criteria L = LCS/LCSD failure

S = MS/MSD failure

Shealy Environmental Services, Inc.

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

Appendix D Regulatory Correspondence





Catherine E. Heigel, Director Promoting and protecting the health of the public and the environment

July 1, 2015

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

RE: IGWA

Laurel Bay Underground Storage Tank Assessment Reports for:

See attached sheet

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received the referenced Underground Storage Tank Assessment Reports for the addresses listed above. 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).

The Department has reviewed the referenced assessment reports. The submitted analytical results indicate that petroleum constituents are above established Risk-Based Screening Levels and additional investigation is warranted. Specifically, the Department requests that a groundwater sampling proposal be generated to determine if there has been an impact to groundwater at this site.

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 kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Kent Krieg

Department of Defense Corrective Action Section

Bureau of Land and Waste Management

South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)

Craig Ehde (via email) Bryan Beck (via email)



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Krieg to Drawdy **Attachment to:**

Subject: IGWA Dated 7/1/2015

Laurel Bay Underground Storage Tank Assessment Reports for: (97 addresses/110 tanks)

118 Banyan	343 Ash Tank 2
126 Banyan	344 Ash Tank 2
127 Banyan	347 Ash Tank 2
130 Banyan Tank 1	378 Aspen Tank 2
141 Laurel Bay	379 Aspen
151 Laurel Bay	382 Aspen Tank 1
224 Cypress	382 Aspen Tank 2
227 Cypress	394 Acorn Tank 2
256 Beech Tank 2	400 Elderberry
257 Beech Tank 2	432 Elderberry
257 Beech Tank 1 257 Beech Tank 2	436 Elderberry
264 Beech	473 Dogwood Tank 2
265 Beech Tank 2	482 Laurel Bay
265 Beech Tank 2	517 Laurel Bay
275 Birch	586 Aster
277 Birch Tank 1	632 Dahlia
285 Birch	639 Dahlia Tank 2
292 Birch Tank 3	643 Dahlia Tank 1
297 Birch	644 Dahlia Tank 1
301 Ash	644 Dahlia Tank 2
306 Ash	646 Dahlia Tank 1
310 Ash Tank 1	646 Dahlia Tank 2
313 Ash	665 Camellia
315 Ash Tank 2	699 Abelia
316 Ash	744 Blue Bell
319 Ash	745 Blue Bell Tank 1
320 Ash	747 Blue Bell Tank 1
321 Ash	747 Blue Bell Tank 2
329 Ash	747 Blue Bell Tank 2
330 Ash Tank 2	749 Blue Bell Tank 1
331 Ash	749 Blue Bell Tank 2
332 Ash	751 Blue Bell
333 Ash	762 Althea
335 Ash Tank 1	765 Althea Tank 2
335 Ash Tank 2	766 Althea Tank 4
341 Ash	767 Althea Tank 1
342 Ash Tank 1	768 Althea Tank 2
342 Ash Tank 2	768 Althea Tank 3
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Laurel Bay Underground Storage Tank Assessment Reports for: (98 addresses/110 tanks) cont.

768 Althea Tank 4	1067 Gardenia
769 Althea Tank 1	1077 Heather
769 Althea Tank 2	1081 Heather
775 Althea	1101 Iris Tank 2
819 Azalea	1104 Iris
840 Azalea	1105 Iris Tank 2
878 Cobia	1124 Iris Tank 2
891 Cobia	1142 Iris Tank 2
913 Barracuda	1146 Iris Tank 2
916 Barracuda	1218 Cardinal
923 Albacore	1240 Dove
1004 Bobwhite	1266 Dove
1022 Foxglove	1292 Eagle
1031 Foxglove	1299 Eagle Tank 1
1034 Foxglove Tank 2	1302 Eagle
1061 Gardenia Tank 3	1336 Albatross
1064 Gardenia	1351 Cardinal



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

June 8, 2016

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

RE: Approval and Concurrence with Draft Final Initial Groundwater Investigation Report-November and December 2015

Laurel Bay Military Housing Area Multiple Properties

Dated April 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 attached addresses on May 2, 2016. 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 15 stated addresses. For the remaining 80 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 <u>petruslb@dhec.sc.gov</u> or 803-898-0294.

Sincerely,

Laurel Petrus

NETS

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-November and December 2015

Specific Property Recommendations

Dated June 8, 2016

Draft Final Initial Groundwater Investigation Report for (95 addresses)

Permanent Monitoring Well Investigation recommendation (15 addresses)		
130 Banyan Drive	473 Dogwood Drive	
256 Beech Street	747 Blue Bell Lane	
285 Birch Drive	749 Blue Bell Lane	
292 Birch Drive	775 Althea Street	
330 Ash Street	1034 Foxglove Street	
331 Ash Street	1104 Iris Lane	
335 Ash Street	1124 Iris Lane	
342 Ash Street		
2 2 1112		

118 Banyan Drive	644 Dahlia Drive	
126 Banyan Drive	646 Dahlia Drive	
127 Banyan Drive	665 Camellia Drive	
141 Laurel Bay Blvd	699 Abelia Street	
151 Laurel Bay Blvd	744 Blue Bell Lane	
224 Cypress Street	745 Blue Bell Lane	
227 Cypress Street	751 Blue Bell Lane	
257 Beech Street	762 Althea Street	
264 Beech Street	765 Althea Street	
265 Beech Street	766 Althea Street	
275 Birch Drive	767 Althea Street	
277 Birch Drive	768 Althea Street	
297 Birch Drive	769 Althea Street	
301 Ash Street	819 Azalea Drive	
306 Ash Street	840 Azalea Drive	
310 Ash Street	878 Cobia Drive	
313 Ash Street	891 Cobia Drive	
315 Ash Street	913 Barracuda Drive	
316 Ash Street	916 Barracuda Drive	
319 Ash Street	923 Wren Lane	
320 Ash Street	1004 Bobwhite Drive	
321 Ash Street	1022 Foxglove Street	
329 Ash Street	1031 Foxglove Street	
332 Ash Street	1061 Gardenia Drive	
333 Ash Street	1064 Gardenia Drive	
341 Ash Street	1067 Gardenia Drive	
347 Ash Street	1077 Heather Street	
378 Aspen Street	1081 Heather Street	
379 Aspen Street	1101 Iris Lane	
382 Aspen Street	1105 Iris Lane	
394 Acorn Street	1142 Iris Lane	
400 Elderberry Drive	1146 Iris Lane	
432 Elderberry Drive	1218 Cardinal Lane	,300
436 Elderberry Drive	1240 Dove Lane	
482 Laurel Bay Blvd	1266 Dove Lane	
517 Laurel Bay Blvd	1292 Eagle Lane	p.6
586 Aster Street	1299 Eagle Lane	
632 Dahlia Drive	1302 Eagle Lane	
639 Dahlia Drive	1336 Albatross Drive	
643 Dahlia Drive	1351 Cardinal Lane	

Attachment to: Petrus to Drawdy
Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015
Specific Property Recommendations
Dated June 8, 2016, Page 2