SUMMARY REPORT 113 ALBACORE STREET (FORMERLY 934 ALBACORE STREET) LAUREL BAY MILITARY HOUSING AREA MARINE CORPS AIR STATION BEAUFORT BEAUFORT, SC

> Revision: 0 Prepared for:

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

and



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

JUNE 2021

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9324 Virginia Avenue Norfolk, Virginia 23511-3095 Prepared by:



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
СТО	Contract Task Order
COPC	constituents of potential concern
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 113 Albacore Street (Formerly 934 Albacore Street). 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 OAPP (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 113 Albacore Street (Formerly 934 Albacore Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 934 Albacore Street* (MCAS Beaufort, 2015). The UST Assessment Report is provided in Appendix B.

# 2.1 UST Removal and Soil Sampling

On September 15, 2015, a single 280 gallon heating oil UST was removed from the back yard adjacent to the patio area at 113 Albacore Street (Formerly 934 Albacore Street). The former UST location is indicated on Figures 1 and 2 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). 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 5'8" 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 113 Albacore Street (Formerly 934 Albacore Street) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

# 3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 113 Albacore Street (Formerly 934 Albacore Street). This NFA determination was obtained in a letter dated August 3, 2016. SCDHEC's NFA letter is provided in Appendix C.

# 4.0 REFERENCES

- Marine Corps Air Station Beaufort, 2015. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 934 Albacore Street, Laurel Bay Military Housing Area, November 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.

Table



# Table 1Laboratory Analytical Results - Soil113 Albacore Street (Formerly 934 Albacore Street)Laurel Bay Military Housing AreaMarine Corps Air Station BeaufortBeaufort, South Carolina

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Sample Collected 09/15/15				
Volatile Organic Compounds Analyzed 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 Analy	zed by EPA Method 8270D (mg/kg)					
Benzo(a)anthracene	0.66	0.0530				
Benzo(b)fluoranthene	0.66	0.0546				
Benzo(k)fluoranthene	0.66	0.0207				
Chrysene	0.66	0.0504				
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 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 - milligram per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

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 Only

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: NH	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 Milit.	ary Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Compan	y Site Identifier
934 Albacore Str	eet, Laurel Bay Military Housing Area
Street Address or State Ro	pad (as applicable)
Beaufort,	Beaufort
City	County

Attachment 2

٦

# 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

		934Albacore
А.	Product(ex. Gas, Kerosene)	Heating oil
B.	Capacity(ex. 1k, 2k)	280 gal
C.	Age	Late 1950s
D.	Construction Material(ex. Steel, FRP)	Steel
E٠	Month/Year of Last Use	Mid 1980s
F.	Depth (ft.) To Base of Tank	5'8"
G.	Spill Prevention Equipment Y/N	No
H·	Overfill Prevention Equipment Y/N	No
I.	Method of Closure Removed/Filled	Removed
J.	Date Tanks Removed/Filled	9/15/2015
K.	Visible Corrosion or Pitting Y/N	Yes
L,	Visible Holes Y/N	Yes

M. Method of disposal for any USTs removed from the ground (attach disposal manifests) <u>UST 934Albacore was removed from the ground and disposed at a</u> Subtitle "D" landfill. See Attachment "A".

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)
 UST 934Albacore had been previously filled with sand by others.

O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST Corrosion, pitting and holes were found throughout the tank.

# VII. PIPING INFORMATION

		934Albacore
А.	Construction Material(ex. Steel, FRP)	Steel & Copper
B.	Distance from UST to Dispenser	N/A
C.	Number of Dispensers	N/A
D.	Type of System Pressure or Suction	Suction
E.	Was Piping Removed from the Ground? Y/N	No
F.	Visible Corrosion or Pitting Y/N	Yes
G.	Visible Holes Y/N	No
H.	Age	Late 1950s
I.	If any corrosion, pitting, or holes were observed,	describe the location and extent for each piping run.

<u>Corrosion and pitting were found on the surface of the steel vent</u> pipe. Copper supply and return lines were sound.

# VIII. BRIEF SITE DESCRIPTION AND HISTORY

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

# IX. SITE CONDITIONS

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

# X. SAMPLE INFORMATION

# A. SCDHEC Lab Certification Number 84009

Β.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
934 Albacore	Excav at fill end	Soil	Sandy	5'8"	9/15/15 1145 hrs	P. Shaw	
8							
9							
10							
11							
12			1				
13							
14							
15							
16							
17					· · · ·	_	
18							
19							
20			100				

\* = 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

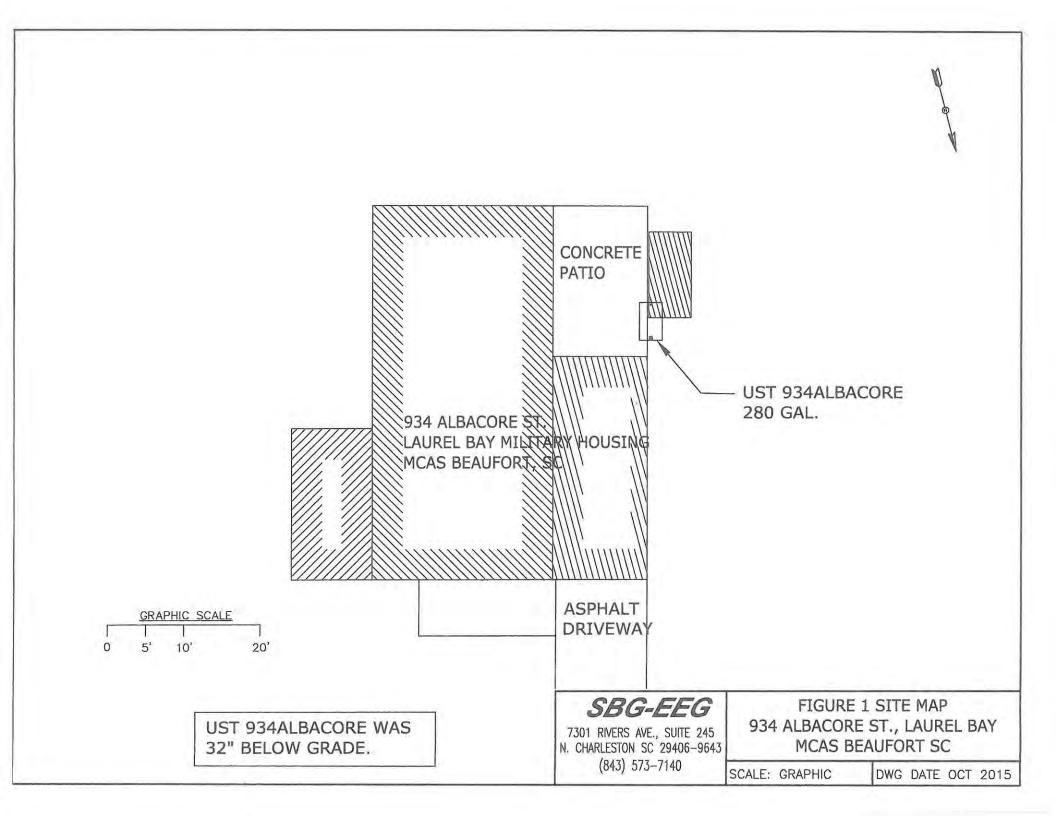
÷.

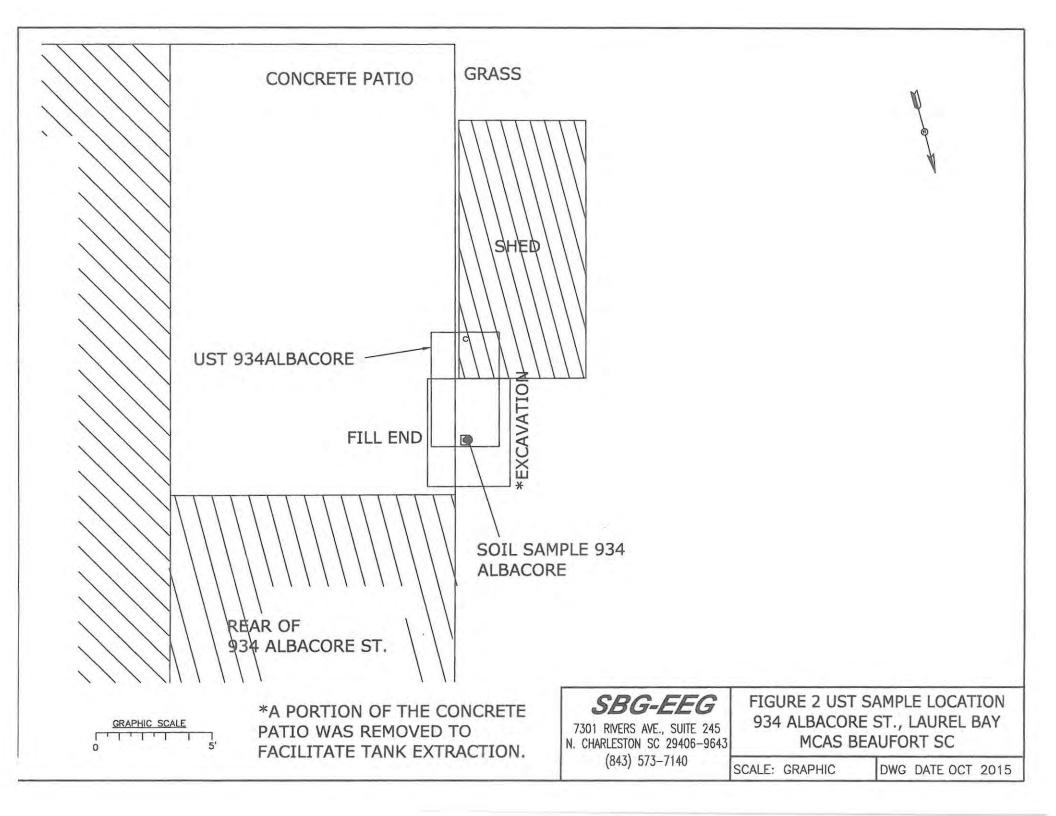
		Yes	No
Α.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?		X
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		X
	If yes, indicate 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?		X
	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, electri	*X city	
	cable, fiber optic & g If yes, indicate the type of utility, distance, and direction on the site map.	eothe	rmal
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?		X
	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 934Albacore.



Picture 2: UST 934Albacore being prepared for transport.



Picture 3: UST 934.Albacore excavation.



Picture 4: Site after completion of work.

# XIV. SUMMARY OF ANALYSIS RESULTS

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

CoC UST	934Albacore				
Benzene	ND				
Toluene	ND				
Ethylbenzene	ND				
Xylenes	ND				
Naphthalene	ND				
Benzo (a) anthracene	0.0530 mg/kg				
Benzo (b) fluoranthene	0.0546 mg/kg				
Benzo (k) fluoranthene	0.0207 mg/kg				
Chrysene	0.0504 mg/kg		-1/1		
Dibenz (a, h) anthracene	ND				
TPH (EPA 3550)					
				1	
CoC					
Benzene					
Toluene					
Ethylbenzene					
Xylenes					
Naphthalene					
Benzo (a) anthracene					
Benzo (b) fluoranthene					
Benzo (k) fluoranthene					
Chrysene					
Dibenz (a, h) anthracene					
TPH (EPA 3550)		1			

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

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
МТВЕ	40				
Naphthalene	25			1	
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)



THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc. TestAmerica Nashville 2960 Foster Creighton Drive Nashville, TN 37204 Tel: (615)726-0177

# TestAmerica Job ID: 490-87758-1

Client Project/Site: Laurel Bay Housing Project

### For:

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The

www.testamericainc.com

Visit us at:

Expert

Small Business Group Inc. 10179 Highway 78 Ladson, South Carolina 29456

Attn: Tom McElwee

Kunth Hage

Authorized for release by: 9/29/2015 5:41:41 PM

Ken Hayes, Project Manager II (615)301-5035 ken.hayes@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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# Sample Summary

## TestAmerica Job ID: 490-87758-1

3

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project

Lab Sample ID	Client Sample ID	Matrix	Collected Received
490-87758-1	1001 Bobwhite	Soil	09/14/15 11:45 09/19/15 09:00
490-87758-2	934 Albacore	Soil	09/15/15 11:45 09/19/15 09:00

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project

Job ID: 490-87758-1

#### Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-87758-1

Comments No additional comments.

#### Receipt

The samples were received on 9/19/2015 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1° C.

#### GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with analytical batch 490-285030.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method(s) 8270D: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 490-284674 and analytical batch 490-284851.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### **VOA** Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



# **Definitions/Glossary**

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project

5

# Qualifiers

#### GC/MS Semi VOA

Quaimer	Qual	ifier	
---------	------	-------	--

J

**Qualifier Description** Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

# Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project

#### Client Sample ID: 1001 Bobwhite Date Collected: 09/14/15 11:45 Date Received: 09/19/15 09:00

TestAmerica	Job	ID:	490-87758-1
1000 11101100	000	$\omega$ ,	100 01100 1

Lab Sample ID: 490-87758-1 Matrix: Soil

Method: 8260B - Volatile O Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND	Quaimer	0.00224	0.000750	2022	2	and the second se	09/28/15 16:04	Dil Fac	
Ethylbenzene	ND		0.00224	0.000750	mg/Kg	ø		09/28/15 16:04	1	
Naphthalene	ND		0.00560	0.00190	0 0	0		09/28/15 16:04	1	J
Toluene	ND		0.00224	0.000828		\$		09/28/15 16:04	1	
Xylenes, Total	ND		0.00672	0.00138	0 0	T.		09/28/15 16:04	1	
Aylenes, Total	ND		0.00072	0.00136	mg/kg	3	09/14/15 11:45	09/28/15 16:04	4	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	88		70 - 130				09/14/15 11:45	09/28/15 16:04	1	
4-Bromofluorobenzene (Surr)	109		70 - 130				09/14/15 11:45	09/28/15 16:04	1	
Dibromofluoromethane (Surr)	102		70 - 130				09/14/15 11:45	09/28/15 16:04	1	
Toluene-d8 (Surr)	108		70 - 130				09/14/15 11:45	09/28/15 16:04	1	
Method: 8270D - Semivolat	ile Organic Co	mpounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.0658	0.00981	mg/Kg	ż	09/26/15 10:27	09/27/15 20:08	1	
Acenaphthylene	ND		0.0658	0.00883	mg/Kg	4	09/26/15 10:27	09/27/15 20:08	1	
Anthracene	ND		0.0658	0.00883	mg/Kg	$\dot{\phi}$	09/26/15 10:27	09/27/15 20:08	1	
Benzo[a]anthracene	ND		0.0658	0.0147	mg/Kg	3	09/26/15 10:27	09/27/15 20:08	1	
Benzo[a]pyrene	ND		0.0658	0.0118	mg/Kg	4	09/26/15 10:27	09/27/15 20:08	1	
Benzo[b]fluoranthene	ND		0.0658	0.0118	mg/Kg	\$	09/26/15 10:27	09/27/15 20:08	1	
Benzo[g,h,i]perylene	ND		0.0658	0.00883	mg/Kg	10	09/26/15 10:27	09/27/15 20:08	1	
Benzo[k]fluoranthene	ND		0.0658	0.0137	mg/Kg	\$	09/26/15 10:27	09/27/15 20:08	1	
1-Methylnaphthalene	ND		0.0658	0.0137	mg/Kg	7	09/26/15 10:27	09/27/15 20:08	1	
Pyrene	ND		0.0658	0.0118	mg/Kg	\$	09/26/15 10:27	09/27/15 20:08	1	
Phenanthrene	ND		0.0658	0.00883	mg/Kg	~	09/26/15 10:27	09/27/15 20:08	1	
Chrysene	ND		0.0658	0.00883	mg/Kg	>	09/26/15 10:27	09/27/15 20:08	1	
Dibenz(a,h)anthracene	ND		0.0658	0.00687	mg/Kg	4	09/26/15 10:27	09/27/15 20:08	1	
Fluoranthene	ND		0.0658	0.00883	mg/Kg	4	09/26/15 10:27	09/27/15 20:08	1	
Fluorene	ND		0.0658	0.0118	mg/Kg	-2	09/26/15 10:27	09/27/15 20:08	1	
Indeno[1,2,3-cd]pyrene	ND		0.0658	0.00981	mg/Kg	÷.,	09/26/15 10:27	09/27/15 20:08	1	
Naphthalene	ND		0.0658	0.00883		4	09/26/15 10:27	09/27/15 20:08	1	
2-Methylnaphthalene	ND		0.0658	0.0157	mg/Kg	¢	09/26/15 10:27	09/27/15 20:08	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	77		29 - 120				09/26/15 10:27	09/27/15 20:08	1	
Terphenyl-d14 (Surr)	83		13-120				09/26/15 10:27	09/27/15 20:08	1	
Nitrobenzene-d5 (Surr)	70		27 - 120				09/26/15 10:27	09/27/15 20:08	1	
General Chemistry										
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Percent Solids	87		0.10	0.10	0/		Carc More 2	09/22/15 10:25	1	

TestAmerica Nashville

## Client Sample ID: 934 Albacore Date Collected: 09/15/15 11:45

Date Received: 09/19/15 09:00

Method: 8260B - Volatile O				-					-
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00216		mg/Kg	*	09/15/15 11:45	09/28/15 16:34	1
Ethylbenzene	ND		0.00216		mg/Kg	\$		09/28/15 16:34	1
Naphthalene	ND		0.00541	0.00184		\$	09/15/15 11:45		1
Toluene	ND		0.00216	0.000800		*	09/15/15 11:45		1
Xylenes, Total	ND		0.00649	0.00133	mg/Kg	¢	09/15/15 11:45	09/28/15 16:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	86		70 - 130				09/15/15 11:45	09/28/15 16:34	1
4-Bromofluorobenzene (Surr)	106		70 - 130				09/15/15 11:45	09/28/15 16:34	1
Dibromofluoromethane (Surr)	102		70 - 130				09/15/15 11:45	09/28/15 16:34	1
Toluene-d8 (Surr)	107		70 - 130				09/15/15 11:45	09/28/15 16:34	7
Method: 8270D - Semivolat	tile Organic Co	mpounds	(GC/MS)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0657	0.00980	mg/Kg	4	09/26/15 10:27	09/27/15 20:32	1
Acenaphthylene	ND		0.0657	0.00882	mg/Kg	0	09/26/15 10:27	09/27/15 20:32	1
Anthracene	ND		0.0657	0.00882	mg/Kg	¢	09/26/15 10:27	09/27/15 20:32	1
Benzo[a]anthracene	0.0530	J	0.0657	0.0147	mg/Kg	¢	09/26/15 10:27	09/27/15 20:32	1
Benzo[a]pyrene	ND		0.0657	0.0118	mg/Kg	Ŷ	09/26/15 10:27	09/27/15 20:32	1
Benzo[b]fluoranthene	0.0546	J	0.0657	0.0118	mg/Kg	¢.	09/26/15 10:27	09/27/15 20:32	1
Benzo[g,h,i]perylene	ND		0.0657	0.00882	mg/Kg	-0.	09/26/15 10:27	09/27/15 20:32	1
Benzo[k]fluoranthene	0.0207	L	0.0657	0.0137	mg/Kg	\$	09/26/15 10:27	09/27/15 20:32	1
1-Methylnaphthalene	ND		0.0657	0.0137	mg/Kg	\$	09/26/15 10:27	09/27/15 20:32	1
Pyrene	0.0388	L	0.0657	0.0118	mg/Kg	\$	09/26/15 10:27	09/27/15 20:32	1
Phenanthrene	ND		0.0657	0.00882	mg/Kg	¢	09/26/15 10:27	09/27/15 20:32	1
Chrysene	0.0504	J	0.0657	0.00882	mg/Kg	¢	09/26/15 10:27	09/27/15 20:32	1
Dibenz(a,h)anthracene	ND		0.0657	0.00686	mg/Kg	\$	09/26/15 10:27	09/27/15 20:32	1
Fluoranthene	0.0381	J	0.0657	0.00882	mg/Kg	~	09/26/15 10:27	09/27/15 20:32	1
Fluorene	ND		0.0657	0.0118	mg/Kg	¢	09/26/15 10:27	09/27/15 20:32	1
Indeno[1,2,3-cd]pyrene	ND		0.0657	0.00980	mg/Kg	¢	09/26/15 10:27	09/27/15 20:32	1
Naphthalene	ND		0.0657	0.00882	mg/Kg	\$	09/26/15 10:27	09/27/15 20:32	1
2-Methylnaphthalene	ND		0.0657	0.0157	mg/Kg	\$	09/26/15 10:27	09/27/15 20:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		29 - 120				09/26/15 10:27	09/27/15 20:32	1
Terphenyl-d14 (Surr)	72		13-120				09/26/15 10:27	09/27/15 20:32	1
Nitrobenzene-d5 (Surr)	49		27 - 120				09/26/15 10:27	09/27/15 20:32	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89		0.10	0.10	0/			09/22/15 10:25	1

6

TestAmerica Job ID: 490-87758-1

Lab Sample ID: 490-87758-2 Matrix: Soil

TestAmerica Job ID: 490-87758-1

# Method: 8260B - Volatile Organic Compounds (GC/MS)

### Lab Sample ID: MB 490-285030/9 Matrix: Solid Analysis Batch: 285030

### Client Sample ID: Method Blank Prep Type: Total/NA

Client Sample ID: Lab Control Sample

D %Rec

100

105

106

109

109

Client Sample ID: Lab Control Sample Dup

%Rec.

Limits

75-127

80 - 134

69 - 150

80 - 132

80 - 137

Prep Type: Total/NA

Prep Type: Total/NA

and the second second	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.00200	0.000670	mg/Kg			09/28/15 15:35	1	
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			09/28/15 15:35	1	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			09/28/15 15:35	1	
Toluene	ND		0.00200	0.000740	mg/Kg			09/28/15 15:35	1	4
Xylenes, Total	ND		0.00600	0.00123	mg/Kg			09/28/15 15:35	1	
	MB	MB								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	82		70-130					09/28/15 15:35	1	
4-Bromofluorobenzene (Surr)	96		70 - 130					09/28/15 15:35	1	
Dibromofluoromethane (Surr)	99		70 - 130					09/28/15 15:35	1	
Toluene-d8 (Surr)	102		70 - 130					09/28/15 15:35	1	

LCS LCS

0.04996

0.05235

0.05307

0.05440

0.1093

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

### Lab Sample ID: LCS 490-285030/3 Matrix: Solid

Analysis Batch: 285030

		Spike
Analyte		Added
Benzene		0.0500
Ethylbenzene		0.0500
Naphthalene		0.0500
Toluene		0.0500
Xylenes, Total		0.100
	105 105	

	200	200	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Dibromofluoromethane (Surr)	93		70 - 130
Toluene-d8 (Surr)	102		70-130

#### Lab Sample ID: LCSD 490-285030/4 Matrix: Solid Analysis Batch: 285030

Analysis Daton, 200000											
			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.0500	0.05424		mg/Kg		108	75-127	8	50
Ethylbenzene			0.0500	0.05559		mg/Kg		111	80 - 134	6	50
Naphthalene			0.0500	0.05701		mg/Kg		114	69 - 150	7	50
Toluene			0.0500	0.05682		mg/Kg		114	80 - 132	4	50
Xylenes, Total			0.100	0.1150		mg/Kg		115	80 - 137	5	50
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	79		70 - 130								
4-Bromofluorobenzene (Surr)	99		70 - 130								
Dibromofluoromethane (Surr)	93		70 - 130								
Toluene-d8 (Surr)	98		70 - 130								

130

# Method: 8270D - Semivolatile Organic Compounds (GC/MS)

### Lab Sample ID: MB 490-284674/1-A Matrix: Solid Analysis Batch: 284851

lient Samp	le ID	: Meth	od Blank
	Prep	Type:	Total/NA
	Prep	Batch	1: 284674

C

Analysis Batch: 284851								Frep baton.	204014	
and the second second second	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.0670	0.0100	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	-
Anthracene	ND		0.0670	0.00900	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	7
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Pyrene	ND		0.0670	0.0120	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Phenanthrene	ND		0.0670	0.00900	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Chrysene	ND		0.0670	0.00900	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Fluoranthene	ND		0.0670	0.00900	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Fluorene	ND		0.0670	0.0120	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
Naphthalene	ND		0.0670	0.00900	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		09/26/15 09:39	09/27/15 16:57	1	
	MB	MB								
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	86		29 - 120				09/26/15 09:39	09/27/15 16:57	1	
Terphenyl-d14 (Surr)	92		13-120				09/26/15 09:39	09/27/15 16:57	1	
Nitrobenzene-d5 (Surr)	78		27 - 120				09/26/15 09:39	09/27/15 16:57	1	

### Lab Sample ID: LCS 490-284674/2-A Matrix: Solid Analysis Batch: 284851

### Client Sample ID: Lab Control Sample Prep Type: Total/NA

Prep Batch: 284674

Spike	LCS	LCS				%Rec.
Added	Result	Qualifier	Unit	D	%Rec	Limits
1.67	1.325		mg/Kg		79	38 - 120
1.67	1.326		mg/Kg		80	46 - 124
1.67	1.277		mg/Kg		77	45 - 120
1.67	1.282		mg/Kg		77	45 - 120
1.67	1.239		mg/Kg		74	42 - 120
1.67	1.380		mg/Kg		83	38 - 120
1.67	1.333		mg/Kg		80	42 - 120
1.67	1.216		mg/Kg		73	32 - 120
1.67	1.288		mg/Kg		77	43 - 120
1.67	1.254		mg/Kg		75	45 - 120
1.67	1.299		mg/Kg		78	43 - 120
1.67	1.378		mg/Kg		83	32 - 128
1.67	1.285		mg/Kg		77	46 - 120
1.67	1.273		mg/Kg		76	42 - 120
1.67	1.309		mg/Kg		79	41 - 121
1.67	1.203		mg/Kg		72	32 - 120
1.67	1.146		mg/Kg		69	28 - 120
	Added 1.67	Added         Result           1.67         1.325           1.67         1.326           1.67         1.277           1.67         1.282           1.67         1.282           1.67         1.239           1.67         1.333           1.67         1.333           1.67         1.288           1.67         1.288           1.67         1.288           1.67         1.299           1.67         1.285           1.67         1.285           1.67         1.285           1.67         1.289           1.67         1.289           1.67         1.285           1.67         1.285           1.67         1.273           1.67         1.309           1.67         1.203	Added         Result         Qualifier           1.67         1.325           1.67         1.326           1.67         1.277           1.67         1.282           1.67         1.239           1.67         1.333           1.67         1.333           1.67         1.288           1.67         1.288           1.67         1.288           1.67         1.299           1.67         1.285           1.67         1.285           1.67         1.285           1.67         1.285           1.67         1.285           1.67         1.273           1.67         1.203	AddedResultQualifierUnit1.671.325mg/Kg1.671.326mg/Kg1.671.277mg/Kg1.671.282mg/Kg1.671.282mg/Kg1.671.239mg/Kg1.671.330mg/Kg1.671.333mg/Kg1.671.216mg/Kg1.671.288mg/Kg1.671.299mg/Kg1.671.299mg/Kg1.671.285mg/Kg1.671.285mg/Kg1.671.285mg/Kg1.671.273mg/Kg1.671.203mg/Kg	Added         Result 1.67         Qualifier 1.325         Unit mg/Kg         D           1.67         1.326         mg/Kg         mg/Kg           1.67         1.277         mg/Kg           1.67         1.282         mg/Kg           1.67         1.239         mg/Kg           1.67         1.239         mg/Kg           1.67         1.330         mg/Kg           1.67         1.333         mg/Kg           1.67         1.288         mg/Kg           1.67         1.288         mg/Kg           1.67         1.299         mg/Kg           1.67         1.285         mg/Kg           1.67         1.285         mg/Kg           1.67         1.285         mg/Kg           1.67         1.285         mg/Kg           1.67         1.273         mg/Kg           1.67         1.273         mg/Kg           1.67         1.203         mg/Kg	Added         Result         Qualifier         Unit         D         %Rec           1.67         1.325         mg/Kg         79           1.67         1.326         mg/Kg         80           1.67         1.277         mg/Kg         77           1.67         1.282         mg/Kg         77           1.67         1.282         mg/Kg         74           1.67         1.239         mg/Kg         83           1.67         1.330         mg/Kg         83           1.67         1.333         mg/Kg         80           1.67         1.284         mg/Kg         73           1.67         1.288         mg/Kg         73           1.67         1.254         mg/Kg         75           1.67         1.299         mg/Kg         78           1.67         1.285         mg/Kg         76           1.67         1.285         mg/Kg         76           1.67         1.273         mg/Kg         76           1.67         1.203         mg/Kg         79           1.67         1.203         mg/Kg         72

Prep Type: Total/NA

Prep Batch: 284674

Client Sample ID: Lab Control Sample

# Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

### Lab Sample ID: LCS 490-284674/2-A Matrix: Solid Analysis Batch: 284851

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	72		29 - 120
Terphenyl-d14 (Surr)	78		13 - 120
Nitrobenzene-d5 (Surr)	74		27 - 120

# Method: Moisture - Percent Moisture

Lab Sample ID: 490-87758-2 Matrix: Soil							ole ID: 934 Alba Prep Type: Tot	
Analysis Batch: 283428	Sample	Sample	DU	DU				RPD
Analyte		Qualifier		Qualifier	Unit	D	RPD	Limit
Percent Solids	89		88		%		0.7	20

# **QC Association Summary**

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project

# GC/MS VOA

# Prep Batch: 283475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87758-1	1001 Bobwhite	Total/NA	Soil	5035	
490-87758-2	934 Albacore	Total/NA	Soil	5035	
Analysis Batch: 285	030				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87758-1	1001 Bobwhite	Total/NA	Soil	8260B	283475
490-87758-2	934 Albacore	Total/NA	Soil	8260B	283475 8
LCS 490-285030/3	Lab Control Sample	Total/NA	Solid	8260B	0
LCSD 490-285030/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-285030/9	Method Blank	Total/NA	Solid	8260B	
GC/MS Semi VO	A				
Prep Batch: 284674					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87758-1	1001 Bobwhite	Total/NA	Soil	3550C	
490-87758-2	934 Albacore	Total/NA	Soil	3550C	
LCS 490-284674/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-284674/1-A	Method Blank	Total/NA	Solid	3550C	
Analysis Batch: 284	851				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87758-1	1001 Bobwhite	Total/NA	Soil	8270D	284674
490-87758-2	934 Albacore	Total/NA	Soil	8270D	284674
LCS 490-284674/2-A	Lab Control Sample	Total/NA	Solid	8270D	284674
MB 490-284674/1-A	Method Blank	Total/NA	Solid	8270D	284674
General Chemist	try				
Analysis Batch: 283	428				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-87758-1	1001 Bobwhite	Total/NA	Soil	Moisture	
490-87758-2	934 Albacore	Total/NA	Soil	Moisture	
490-87758-2 DU	934 Albacore	Total/NA	Soil	Moisture	

# Client Sample ID: 1001 Bobwhite

Date Collected: 09/14/15 11:45 Date Received: 09/19/15 09:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.149 g	5.0 mL	283475	09/14/15 11:45	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.149 g	5.0 mL	285030	09/28/15 16:04	MJH	TAL NSH
Total/NA	Prep	3550C			35.24 g	1 mL	284674	09/26/15 10:27	LDC	TAL NSH
Total/NA	Analysis	8270D		1	35.24 g	1 mL	284851	09/27/15 20:08	BES	TAL NSH
Total/NA	Analysis	Moisture		1			283428	09/22/15 10:25	MNM	TAL NSH

### Client Sample ID: 934 Albacore Date Collected: 09/15/15 11:45 Date Received: 09/19/15 09:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.195 g	5.0 mL	283475	09/15/15 11:45	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.195 g	5.0 mL	285030	09/28/15 16:34	MJH	TAL NSH
Total/NA	Prep	3550C			34.40 g	1 mL	284674	09/26/15 10:27	LDC	TAL NSH
Total/NA	Analysis	8270D		1	34.40 g	1 mL	284851	09/27/15 20:32	BES	TAL NSH
Total/NA	Analysis	Moisture		1			283428	09/22/15 10:25	MNM	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

Lab Sample ID: 490-87758-2

Matrix: Soil

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# Method Summary

## TestAmerica Job ID: 490-87758-1

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Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

# **Certification Summary**

# Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project

### TestAmerica Job ID: 490-87758-1

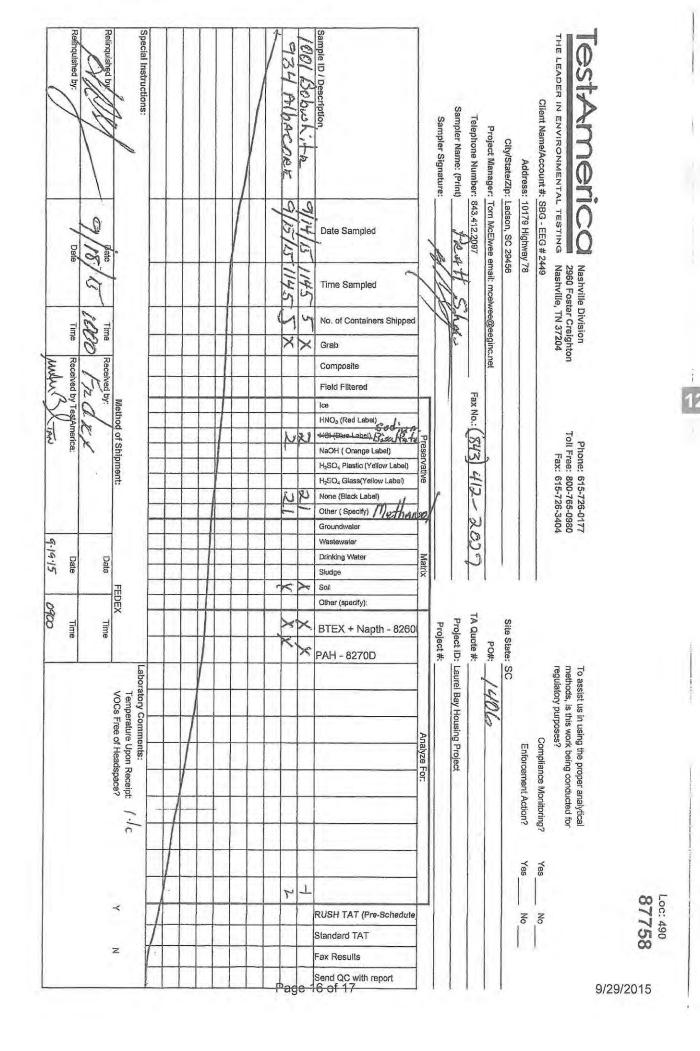
# Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each certification below

Authority	Program		EPA Region	Certification ID	Expiration Date
South Carolina	State Pro	gram	4	84009 (001)	02-28-16
The following analyte	s are included in this repo	rt, but certification is	not offered by the g	overning authority:	
Analysis Method	Prep Method	Matrix	Analyt	e	
8270D	3550C	Soil	1-Met	nyInaphthalene	
		Soil		nt Solids	

TestAmerica	Charles
THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN COOLER RECEIPT FORM	
Cooler Received/Opened On <u>9/19/2015 @ 9:00</u>	758 Chain of Custod,
1. Tracking #(last 4 digits, FedEx)	
Courier: FedEx IR Gun ID 17610176	
2. Temperature of rep. sample or temp blank when opened: Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozer	YES NO.
4. Were custody seals on outside of cooler?	ESNONA
If yes, how many and where:	12000
5. Were the seals intact, signed, and dated correctly?	E9NONA
6. Were custody papers inside cooler?	GESNONA
certify that I opened the cooler and answered questions 1-6 (initial)	
7. Were custody seals on containers: YES 🔊 and Intact	YESNO.
Were these signed and dated correctly?	YESNO.
3. Packing mat'l used? Subblewrap Plastic bag Peanuts Vermiculite Foam Insert Par	per Other None
9. Cooling process: Ice-pack Ice (direct contact) Dry i	ce Other None
10. Did all containers arrive in good condition (unbroken)?	ESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	ES.NONA
12. Did all container labels and tags agree with custody papers?	TESNONA
3a. Were VOA vials received?	ES.NONA
b. Was there any observable headspace present in any VOA vial?	YESNO
4. Was there a Trip Blank in this cooler? YES. NO. If multiple coolers, seque	ence #
certify that I unloaded the cooler and answered questions 7-14 (intial)	mong
5a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH leve	1? YES.NO.NA
b. Did the bettle lebels indicate that the correct proceduratives were used	A server and the server of the
<ul> <li>b. Did the bottle labels indicate that the correct preservatives were used</li> </ul>	ESNONA
<ul> <li>Bid the both abels indicate that the context preservatives were used</li> <li>Was residual chlorine present?</li> </ul>	YESNONA
	YESNO
6. Was residual chlorine present?	YESNO
16. Was residual chlorine present? <u>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial</u> 17. Were custody papers properly filled out (ink, signed, etc)?	YESNO(1)
16. Was residual chlorine present? certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial	YESNO(A)
<ul> <li>16. Was residual chlorine present?</li> <li><u>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial</u></li> <li>17. Were custody papers properly filled out (ink, signed, etc)?</li> <li>18. Did you sign the custody papers in the appropriate place?</li> </ul>	YESNO(A)
<ul> <li>16. Was residual chlorine present?</li> <li><u>certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial</u></li> <li>17. Were custody papers properly filled out (ink, signed, etc)?</li> <li>18. Did you sign the custody papers in the appropriate place?</li> <li>19. Were correct containers used for the analysis requested?</li> </ul>	YESNO(A)

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## Client: Small Business Group Inc.

### Login Number: 87758 List Number: 1 Creator: McBride, Mike

oreator. Mobilitat, Mille		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td>÷</td>	True	÷
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Job Number: 490-87758-1

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List Source: TestAmerica Nashville

ATTACHMENT A

1.00	enerator's US EPA	ID No. Ma	anifest Doc N	No.	2. Page 1 c	of			
NON-HAZARDOUS MANIFEST					1				
Generator's Mailing Address:	Gene	rator's Site Address (If d	Ifferent than m	ailing):	A. Manifes	t Number	1		
MCAS BEAUFORT					WI	VINA	015191	.24	
AUREL BAY HOUSING					-	B. State G	enerator's II	)	
EAUFORT, SC 29904									
Generator's Phone 843-879-04	11	- UCEDA II	S Alexandra						
Transporter 1 Company Name	7.1.	6. US EPA II	) Number		C. State Tr	ansporter's ID	)		
Cardion Francisco - and					D. Transporter's Phone				
Transporter 2 Company Name	8. US EPA II	D Number							
						ansporter's IE	)		
		10 110 504	ID Alexandras		F. Transpo	rter's Phone			
Designated Facility Name and Site Addres	55	10. US EPA	ID Number		G. State Fa	cility ID			
ICKORY HILL LANDFILL 521 LOW COUNTRY DRIVE						acility Phone	843-98	37-4643	
IDGELAND, SC 29936					11. State 1	active r none			
Dechie, se 2000				-					
. Description of Waste Materials			12. Cc No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Mis	c. Comments	s.
HEATING OIL TANK FILLED WITH	SAND			1/1					
HEATING OF FARCTIEED WITH				ZUM	11.1	1745		÷	-
WM Profile #	102655SC			1		1			-
							1		
				N			1		_
WM Profile #									
WM Profile #			-	-					
			I have it						
WM Profile # Additional Descriptions for Materials Lis	sted Above		K. Dispo	sal Location	1	1			
Additional Descriptions for materials a									
			Cell			2.1	Level		_
11			Grid	1400		paber	CAL SPACE	K	
5. Special Handling Instructions and Addit	ional information	30 hush te	12594	2	l total t	Ulbric.	P., 13		
2)		21xebell		4) ~	124 5	Hone.	CR.R.		
urchase Order #	at when the st	EMERGENCY CO	ONTACT / PI	HONE NO .:				-	
6. GENERATOR'S CERTIFICATE:									
hereby certify that the above-described m	aterials are not h	azardous wastes as def	ined by 40 (	CFR Part 261	or any appli	cable state la	w, have beer	n fully and	ł
ccurately described, classified and package	ed and are in prop	per condition for transp	ortation acc	ording to ap	plicable regu	ulations.	Month	Day	Year
Flon Mane		Signature "On beh	alt of				Monu	Uay	rear V C
7. Transporter 1 Acknowledgement of Red	ceipt of Materials		a second a second						1
Printed Name	and the second second second	Signature					Month	Day	Year
				_					
8. Transporter 2 Acknowledgement of Re-	ceipt of Materials						1.0.2	1	1
Printed Name		Signature					Month	Day	Year
Salar and the		June -							
<ol><li>Certificate of Final Treatment/Disposal</li></ol>	mant facility that	t to the best of my know	wledge, the	above-descr	ibed waste	was managed	in compliant	ce with all	I
certify, on behalf of the above listed treat	ment facility, that								
certify, on behalf of the above listed treat applicable laws, regulations, permits and lie	censes on the dat	es listed above.							
<ol> <li>Certificate of Final Treatment/Disposal certify, on behalf of the above listed treat applicable laws, regulations, permits and line</li> <li>Facility Owner or Operator: Certification</li> <li>Printed Name</li> </ol>	censes on the dat	es listed above.			st.	_	Month	Day	Year

Appendix C Regulatory Correspondence





August 3, 2016

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

RE: No Further Action Laurel Bay Underground Storage Tank Assessment Reports Dated July 2015, November 2015

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (the Department) received the Underground Storage Tanks (USTs) Assessment Reports for the addresses listed in the attachment. 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 and agrees there is no indication of soil or groundwater contamination on these properties 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,

XIRS

Laurel Petrus, Environmental Engineer Associate Bureau of Land and Waste Management

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

# Attachment to: Petrus to Drawdy Subject: No Further Action Dated August 3, 2016

Laurel Bay Underground Assessment Reports for (28 addresses/29 tanks)

309 Ash	1001 Bobwhite
477 Dogwood Tank 2	1020 Foxglove
563 Dahlia	1063 Gardenia
659 Camellia	1065 Gardenia Tank 2
1213 Cardinal	1100 Iris Tank 3*
114 Banyan	1139 Irís
158 Cypress	1141 Iris Tank 2
459 Elderberry	1174 Bobwhite
611 Dahlia	1184 Bobwhite Tank 1
656 Camellia	1184 Bobwhite Tank 2
671 Camellia	1220 Cardinal
678 Camellia	1253 Dove
724 Bluebell	1332 Albatross
732 Bluebell	1387 Dove
934 Albacore	