SUMMARY REPORT 77 ABELIA STREET (FORMERLY 694 ABELIA 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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Naval Facilities Engineering Command Atlantic

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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- Appendix B UST Assesment Report
- Appendix C Regulatory Correspondence



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 77 Abelia Street (Formerly 694 Abelia 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 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 77 Abelia Street (Formerly 694 Abelia Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 694 Abelia Street* (MCAS Beaufort, 2014). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On July 29, 2013, a single 280 gallon heating oil UST was removed from the concrete porch area at 77 Abelia Street (Formerly 694 Abelia Street). The former UST location is indicated on Figures 2 and 3 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



5'3" bgs and one 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 77 Abelia Street (Formerly 694 Abelia 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 77 Abelia Street (Formerly 694 Abelia Street). This NFA determination was obtained in a letter dated July 1, 2015. SCDHEC's NFA letter is provided in Appendix C.

4.0 REFERENCES

- Marine Corps Air Station Beaufort, 2014. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 694 Abelia Street, Laurel Bay Military Housing Area, March 2014.
- 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 - Soil77 Abelia Street (Formerly 694 Abelia Street)Laurel Bay Military Housing AreaMarine Corps Air Station BeaufortBeaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 07/29/13					
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 Anal	yzed by EPA Method 8270D (mg/kg)						
Benzo(a)anthracene	0.66	ND					
Benzo(b)fluoranthene	0.66	ND					
Benzo(k)fluoranthene	0.66	ND					
Chrysene	0.66	ND					
Dibenz(a,h)anthracene	0.66	ND					

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 - milligram per kilogram

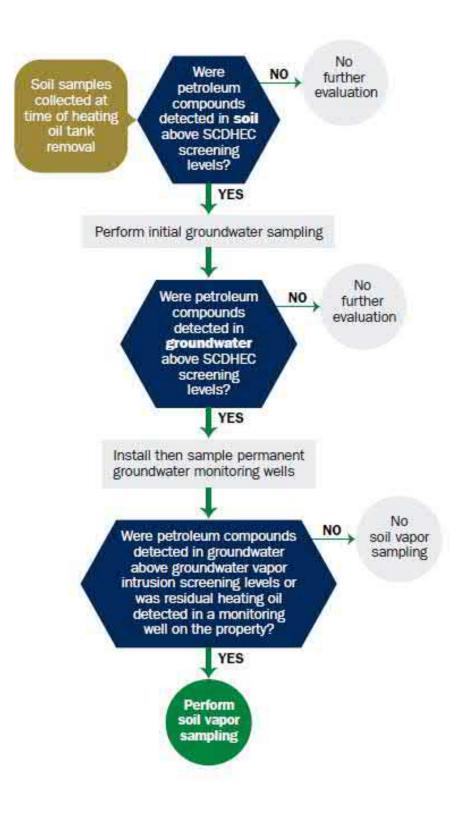
ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The laboratory report is provided in Appendix B.

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	
	Jse Only
REC	EIVED
MAR	1 9 2014
SC DHE Land & Wa	CC - Bureau of Iste Management

I.

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

OWNERSHIP OF UST (S)

MCAS Beaufort, Commanding Owner Name (Corporation, Individua		AO (Craig Ehde)
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 Facility Name or Compar	ary Housing Area, Marine Corps by Site Identifier	Air Station, Beaufort, SC
694 Abelia Stree Street Address or State R	t, Laurel Bay Military Housing oad (as applicable)	g Area
Beaufort,	Beaufort	
City	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)

VI. UST INFORMATION

	VI. UST INFORMATION	694Abelia
A.	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	5'3"
G.	Spill Prevention Equipment Y/N	No
H	Overfill Prevention Equipment Y/N	No
r	Method of Closure Removed/Filled	Removed
J.	Date Tanks Removed/Filled	7/29/2013
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 694Abelia 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 694Abelia 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

		694Abelia
		Steel
Α.	Construction Material(ex. Steel, FRP)	& 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
L.		describe the location and extent for each piping run.

Corrosion and pitting were found on the surface of the steel vent 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.

	Yes	No	Unk
 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. 		X	
 B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? If yes, indicate location on site map and describe the odor (strong, mild, etc.) 		x	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		x	
 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	

IX. SITE CONDITIONS

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 #
94 Abelia	Excav at fill end	Soil	Sandy	5'3"	7/29/13 1445 hrs	P. Shaw	
			-				
	-						
1 25 1							
8							1
9							
10							
11							
12							
13	A			1			
14						· · · · · ·	C 1
15							
16		1					10000
17							
18							
19			I				l
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

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

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

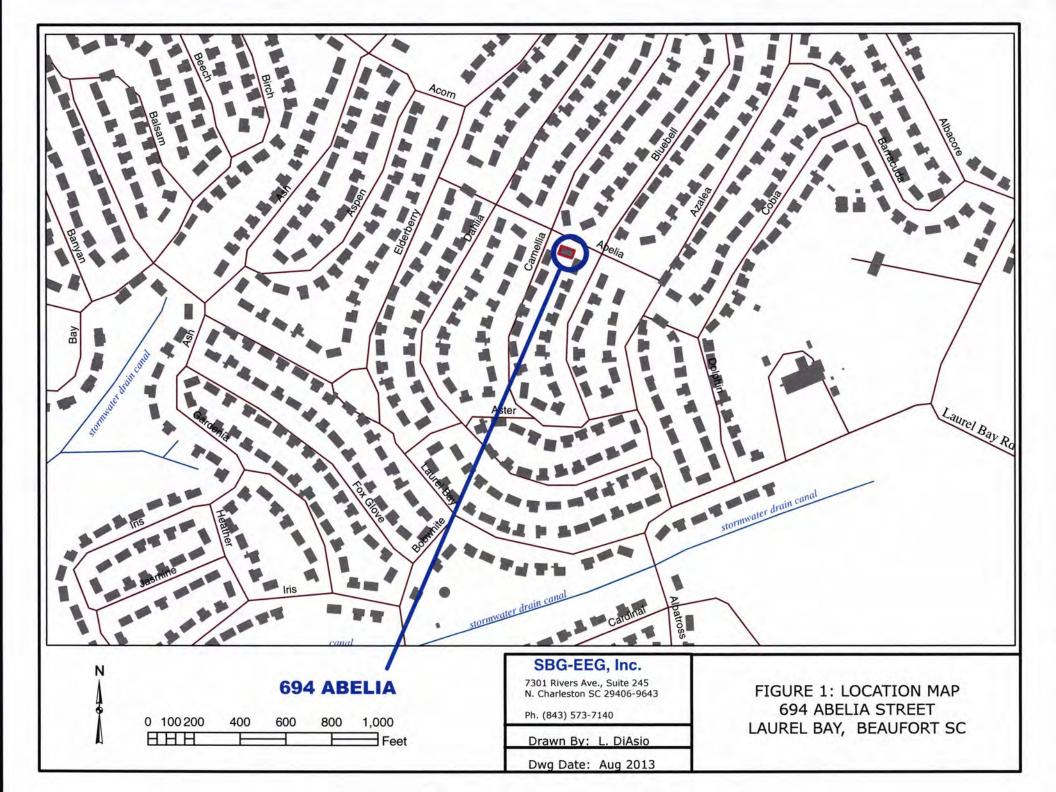
XII. RECEPTORS

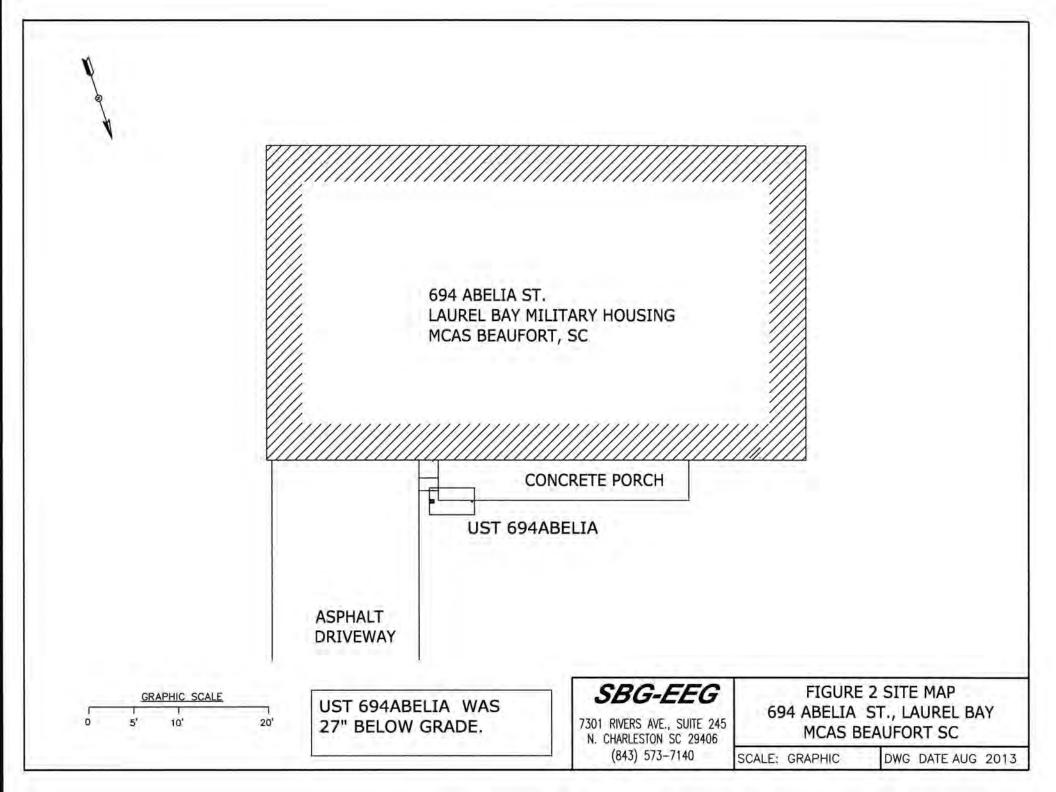
		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?		х
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		x
	If yes, indicate type of well, distance, and direction on site map.		1
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.	14	
D.	Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? *Sewer, water, electricity.	*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?		х
	If yes, indicate the area of contaminated soil on the site map.		

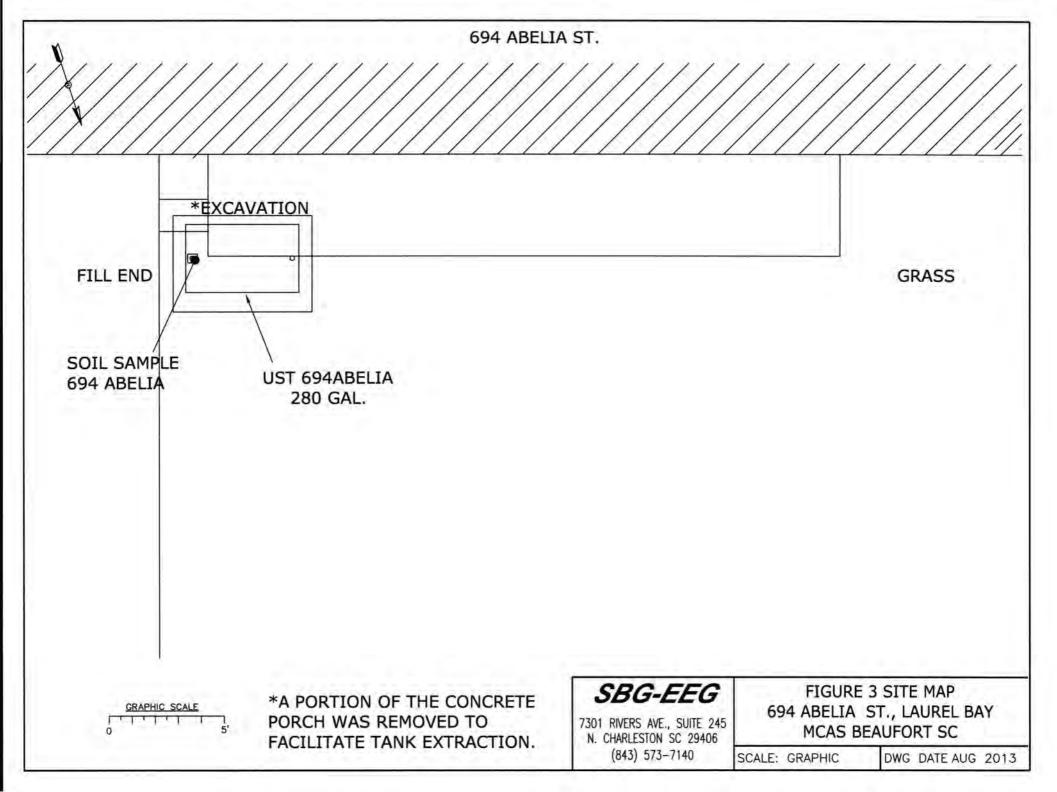
XIII. SITE MAP

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 694Abelia.



Picture 2: UST 694Abelia excavation.

XIV. SUMMARY OF ANALYSIS RESULTS

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

CoC UST	694Abelia				
Benzene	ND				
Toluene	ND				
Ethylbenzene	ND			- 1	
Xylenes	ND				
Naphthalene	ND		1		-
Benzo (a) anthracene	ND				
Benzo (b) fluoranthene	ND				
Benzo (k) fluoranthene	ND				
Chrysene	ND		1		-
Dibenz (a, h) anthracene	ND				
TPH (EPA 3550)					
CoC					T
Benzene					
Toluene					
Ethylbenzene					
Xylenes					
Naphthalene		-	1		
Benzo (a) anthracene					
Benzo (b) fluoranthene					
Benzo (k) fluoranthene				·	-
Chrysene					
Dibenz (a, h) anthracene					
TPH (EPA 3550)					

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

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A	~ -1			
МТВЕ	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10	-			
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10	14			
EDB	.05	- 1			-
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: 490-32448-1

Client Project/Site: Laurel Bay Housing Project Revision: 1

For:

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

Attn: Tom McElwee

Kuth Hay

Authorized for release by: 10/8/2013 3:48:59 PM Ken Hayes, Project Manager I

(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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2

Sample Summary

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

TestAmerica Job ID: 490-32448-1

8

9

12

13

ab Sample ID	Client Sample ID	Matrix	Collected	Received
90-32448-1	694 Abelia	Solid	07/29/13 14:45	08/06/13 08:15
90-32448-2	1061-1 Gardenia	Solid	07/30/13 14:30	08/06/13 08:15
490-32448-3	1429 Albatross	Solid	07/31/13 14:45	08/06/13 08:15

TestAmerica Nashville

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

Job ID: 490-32448-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-32448-1

REVISED REPORT: Revised to change the name for sample 490-32448-2 from 1061 Gardenia to 1061-1 Gardenia per client request. This report replaces the one generated on 08/12/13 @ 15:52.

Comments

No additional comments.

Receipt

The samples were received on 8/6/2013 8:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -0.1° C.

GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 1061 Gardenia (490-32448-2), 1429 Albatross (490-32448-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample(s): 1061 Gardenia (490-32448-2), 1429 Albatross (490-32448-3).

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 98313 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 98313 was outside control limits. The associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision met acceptance criteria.

Method(s) 8260B: The following sample(s) was diluted due to the nature of the sample matrix: 1061 Gardenia (490-32448-2), 1429 Albatross (490-32448-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 98594.

Method(s) 8260B: The method blank for batch 98594 contained Toluene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270D: The following sample(s) was diluted due to the nature of the sample matrix and internal standard failure of the 1x.: 1061 Gardenia (490-32448-2). Elevated reporting limits (RLs) are provided.

Method(s) 8270D: Surrogate recovery for the following sample(s) was outside control limits: 1061 Gardenia (490-32448-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 98575 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Definitions/Glossary

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-32448-1

Qualifiers

duamero	
GC/MS VOA	
Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
x	Surrogate is outside control limits
GC/MS Semi	VOA
Qualifier	Qualifier Description
F	MS/MSD Recovery and/or RPD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
x	Surrogate is outside control limits
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.

Abbreviation	These commonly used abbreviations may or may not be present in this report.
a	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
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: 694 Abelia

Date Collected: 07/29/13 14:45 Date Received: 08/06/13 08:15

Lab Sample ID: 490-32448-1 Matrix: Solid

Percent Solids: 89.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.00220	0.000737	mg/Kg	22	08/06/13 14:08	08/07/13 16:44	1	-
Ethylbenzene	ND		0.00220	0.000737	mg/Kg	Π	08/06/13 14:08	08/07/13 16:44	1	6
Naphthalene	ND		0.00550	0.00187	mg/Kg	E	08/06/13 14:08	08/07/13 16:44	1	-
Toluene	ND		0.00220	0.000814	mg/Kg	¢1	08/06/13 14:08	08/07/13 16:44	1	
Xylenes, Total	ND		0.00330	0.000737	mg/Kg	n	08/06/13 14:08	08/07/13 16:44	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				08/06/13 14:08	08/07/13 16:44	1	
4-Bromofluorobenzene (Surr)	106		70 - 130				08/06/13 14:08	08/07/13 16:44	1	10
Dibromofluoromethane (Surr)	100		70 - 130				08/06/13 14:08	08/07/13 16:44	1	
Toluene-d8 (Surr)	103		70 - 130				08/06/13 14:08	08/07/13 16:44	1	
Method: 8270D - Semivolatile	Organic Compou	inds (GC/M	5)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.0668	0.00998	mg/Kg	12	08/08/13 09:39	08/10/13 00:32	1	
Acenaphthylene	ND		0.0668	0.00898	mg/Kg	Ø	08/08/13 09:39	08/10/13 00:32	1	-
Anthracene	ND		0.0668	0.00898	mg/Kg	α	08/08/13 09:39	08/10/13 00:32	1	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0668	0.00998	mg/Kg	12	08/08/13 09:39	08/10/13 00:32	1
Acenaphthylene	ND		0.0668	0.00898	mg/Kg	Ø	08/08/13 09:39	08/10/13 00:32	1
Anthracene	ND		0.0668	0.00898	mg/Kg	α	08/08/13 09:39	08/10/13 00:32	1
Benzo[a]anthracene	ND		0.0668	0.0150	mg/Kg		08/08/13 09:39	08/10/13 00:32	1
Benzo[a]pyrene	ND		0.0668	0.0120	mg/Kg	11	08/08/13 09:39	08/10/13 00:32	1
Benzo[b]fluoranthene	ND		0.0668	0.0120	mg/Kg	10	08/08/13 09:39	08/10/13 00:32	1
Benzo[g,h,i]perylene	ND		0.0668	0.00898	mg/Kg	13	08/08/13 09:39	08/10/13 00:32	1
Benzo[k]fluoranthene	ND		0.0668	0.0140	mg/Kg	12	08/08/13 09:39	08/10/13 00:32	1
1-Methylnaphthalene	ND		0.0668	0.0140	mg/Kg	12	08/08/13 09:39	08/10/13 00:32	1
Pyrene	ND		0.0668	0.0120	mg/Kg	-	08/08/13 09:39	08/10/13 00:32	1
Phenanthrene	ND		0.0668	0.00898	mg/Kg	12	08/08/13 09:39	08/10/13 00:32	1
Chrysene	ND		0.0668	0.00898	mg/Kg	D.	08/08/13 09:39	08/10/13 00:32	1
Dibenz(a,h)anthracene	ND		0.0668	0.00698	mg/Kg	.01	08/08/13 09:39	08/10/13 00:32	1
Fluoranthene	ND		0.0668	0.00898	mg/Kg	D	08/08/13 09:39	08/10/13 00:32	1
Fluorene	ND		0.0668	0.0120	mg/Kg	ä	08/08/13 09:39	08/10/13 00:32	1
Indeno[1,2,3-cd]pyrene	ND		0.0668	0.00998	mg/Kg	12	08/08/13 09:39	08/10/13 00:32	1
Naphthalene	ND		0.0668	0.00898	mg/Kg	13	08/08/13 09:39	08/10/13 00:32	1
2-Methylnaphthalene	ND		0.0668	0.0160	mg/Kg	17	08/08/13 09:39	08/10/13 00:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		29 - 120				08/08/13 09:39	08/10/13 00:32	1
Terphenyl-d14 (Surr)	62		13 - 120				08/08/13 09:39	08/10/13 00:32	1
Nitrobenzene-d5 (Surr)	50		27 - 120				08/08/13 09:39	08/10/13 00:32	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	89		0.10	0.10	%			08/06/13 14:11	1

Client Sample Results

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

Client Sample ID: 1061-1 Gardenia

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

Date Collected: 07/30/13 14:30 Date Received: 08/06/13 08:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0107		0.00250	0.000836	mg/Kg	ä	08/06/13 14:08	08/07/13 17:11	1
Ethylbenzene	3.29		0.164	0.0557	mg/Kg	10	08/06/13 14:13	08/08/13 19:58	1
Naphthalene	24.2		0.410	0.139	mg/Kg	12	08/06/13 14:13	08/08/13 19:58	1
Toluene	ND		0.164	0.0606	mg/Kg	12	08/06/13 14:13	08/08/13 19:58	1
Xylenes, Total	3.85		0.246	0.0557	mg/Kg	13	08/06/13 14:13	08/08/13 19:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	125		70 - 130				08/06/13 14:08	08/07/13 17:11	1
1,2-Dichloroethane-d4 (Surr)	98		70 - 130				08/06/13 14:13	08/08/13 19:58	1
4-Bromofluorobenzene (Surr)	1393	x	70 - 130				08/06/13 14:08	08/07/13 17:11	1
4-Bromofluorobenzene (Surr)	114		70 - 130				08/06/13 14:13	08/08/13 19:58	1
Dibromofluoromethane (Surr)	104		70 - 130				08/06/13 14:08	08/07/13 17:11	1
Dibromofluoromethane (Surr)	99		70 - 130				08/06/13 14:13	08/08/13 19:58	1
Toluene-d8 (Surr)	127		70 - 130				08/06/13 14:08	08/07/13 17:11	1
Toluene-d8 (Surr)	95		70 - 130				08/06/13 14:13	08/08/13 19:58	1
Method: 8270D - Semivolatile (Organic Compou	nds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	2.25		0.666	0.0995	mg/Kg	Ľ.	08/08/13 09:39	08/10/13 19:46	10
Acenaphthylene	0.648	J	0.666	0.0895	mg/Kg	12	08/08/13 09:39	08/10/13 19:46	10
Anthracene	0.499	J	0.666	0.0895	mg/Kg	12	08/08/13 09:39	08/10/13 19:46	10
Benzo[a]anthracene	ND		0.666	0.149	mg/Kg	Ø	08/08/13 09:39	08/10/13 19:46	10
Benzo[a]pyrene	ND		0.666	0.119	mg/Kg	12	08/08/13 09:39	08/10/13 19:46	10
Benzo[b]fluoranthene	ND		0.666	0.119	mg/Kg	ü	08/08/13 09:39	08/10/13 19:46	10
Benzo[g,h,i]perylene	ND		0.666	0.0895	mg/Kg	ü	08/08/13 09:39	08/10/13 19:46	10
Benzo[k]fluoranthene	ND		0.666	0.139	mg/Kg	12,	08/08/13 09:39	08/10/13 19:46	10
1-Methylnaphthalene	21.9		0.666	0.139	mg/Kg	12	08/08/13 09:39	08/10/13 19:46	10
Pyrene	0.556	J	0.666	0.119	mg/Kg	0	08/08/13 09:39	08/10/13 19:46	10
Phenanthrene	7.01		0.666	0.0895	mg/Kg	12	08/08/13 09:39	08/10/13 19:46	10
Chrysene	ND		0.666	0.0895	mg/Kg	62	08/08/13 09:39	08/10/13 19:46	10
Dibenz(a,h)anthracene	ND		0.666	0.0696	mg/Kg	12	08/08/13 09:39	08/10/13 19:46	10
Fluoranthene	ND		0.666	0.0895	mg/Kg	\$3	08/08/13 09:39	08/10/13 19:46	10
Fluorene	4.69		0.666	0.119	mg/Kg	23	08/08/13 09:39	08/10/13 19:46	10
Indeno[1,2,3-cd]pyrene	ND		0.666	0.0995	mg/Kg	12	08/08/13 09:39	08/10/13 19:46	10
Naphthalene	4.79		0.666	0.0895	mg/Kg	12	08/08/13 09:39	08/10/13 19:46	10
2-Methylnaphthalene	22.2		0.666	0.159	mg/Kg	¤	08/08/13 09:39	08/10/13 19:46	10
2-methymaphtnalene							Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	Limits						
Surrogate	%Recovery 59	Qualifier	29 - 120				08/08/13 09:39	08/10/13 19:46	10
Surrogate 2-Fluorobiphenyl (Surr) Terphenyl-d14 (Surr)		Qualifier					08/08/13 09:39 08/08/13 09:39	08/10/13 19:46 08/10/13 19:46	10 10

General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed
Percent Solids	68		0.10	0.10	%			08/06/13 14:11

TestAmerica Job ID: 490-32448-1

Lab Sample ID: 490-32448-2

Matrix: Solid Percent Solids: 68.1

TestAmerica Nashville

Dil Fac

1

Client Sample ID: 1429 Albatross

Date Collected: 07/31/13 14:45 Date Received: 08/06/

Toluene-d8 (Surr)

Toluene-d8 (Surr)

ale obliced offering the								Terres er i	inc. oona	
Date Received: 08/06/13 08:15								Percent Soli	ds: 79.6	
Method: 8260B - Volatile Orga Analyte		(GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	E
Benzene	0.00393		0.00201	0.000675	mg/Kg	D	08/06/13 14:08	08/07/13 17:38	1	
Ethylbenzene	2.47		0.130	0.0442	mg/Kg	12	08/06/13 14:13	08/08/13 20:53	1	
Naphthalene	19.4		0.325	0.111	mg/Kg	CT.	08/06/13 14:13	08/08/13 20:53	1	
Toluene	ND		0.130	0.0481	mg/Kg	23	08/06/13 14:13	08/08/13 20:53	1	
Xylenes, Total	3.90		0.195	0.0442	mg/Kg	п	08/06/13 14:13	08/08/13 20:53	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	118		70 - 130				08/06/13 14:08	08/07/13 17:38	1	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				08/06/13 14:13	08/08/13 20:53	1	
4-Bromofluorobenzene (Surr)	1280	x	70 - 130				08/06/13 14:08	08/07/13 17:38	1	
4-Bromofluorobenzene (Surr)	125		70 - 130				08/06/13 14:13	08/08/13 20:53	1	
Dibromofluoromethane (Surr)	103		70 - 130				08/06/13 14:08	08/07/13 17:38	1	
Dibromofluoromethane (Surr)	98		70 - 130				08/06/13 14:13	08/08/13 20:53	1	

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

120

95

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.957		0.0667	0.00995	mg/Kg	a	08/08/13 09:39	08/10/13 01:18	1
Acenaphthylene	0.283		0.0667	0.00896	mg/Kg	52	08/08/13 09:39	08/10/13 01:18	1
Anthracene	0.0642	J	0.0667	0.00896	mg/Kg	α	08/08/13 09:39	08/10/13 01:18	1
Benzo[a]anthracene	0.143		0.0667	0.0149	mg/Kg	n	08/08/13 09:39	08/10/13 01:18	1
Benzo[a]pyrene	0.0636	J	0.0667	0.0119	mg/Kg	u	08/08/13 09:39	08/10/13 01:18	1
Benzo[b]fluoranthene	0.104		0.0667	0.0119	mg/Kg	13	08/08/13 09:39	08/10/13 01:18	1
Benzo[g,h,i]perylene	ND		0.0667	0.00896	mg/Kg	12	08/08/13 09:39	08/10/13 01:18	1
Benzo[k]fluoranthene	0.0425	J	0.0667	0.0139	mg/Kg	12	08/08/13 09:39	08/10/13 01:18	1
1-Methylnaphthalene	9.68		0.667	0.139	mg/Kg	-	08/08/13 09:39	08/10/13 20:08	10
Pyrene	0.521		0.0667	0.0119	mg/Kg	55	08/08/13 09:39	08/10/13 01:18	1
Phenanthrene	3.03		0.0667	0.00896	mg/Kg	T.	08/08/13 09:39	08/10/13 01:18	1
Chrysene	0.176		0.0667	0.00896	mg/Kg	Ø	08/08/13 09:39	08/10/13 01:18	1
Dibenz(a,h)anthracene	ND		0.0667	0.00697	mg/Kg	12	08/08/13 09:39	08/10/13 01:18	1
Fluoranthene	0.259		0.0667	0.00896	mg/Kg	1 2	08/08/13 09:39	08/10/13 01:18	1
Fluorene	1.55		0.0667	0.0119	mg/Kg	121	08/08/13 09:39	08/10/13 01:18	1
Indeno[1,2,3-cd]pyrene	ND		0.0667	0.00995	mg/Kg	12	08/08/13 09:39	08/10/13 01:18	1
Naphthalene	3.05		0.0667	0.00896	mg/Kg	\$7	08/08/13 09:39	08/10/13 01:18	1
2-Methylnaphthalene	14.4		0.667	0.159	mg/Kg	3,2	08/08/13 09:39	08/10/13 20:08	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	57		29 - 120				08/08/13 09:39	08/10/13 01:18	1
Terphenyl-d14 (Surr)	78		13 - 120				08/08/13 09:39	08/10/13 01:18	1
Nitrobenzene-d5 (Surr)	60		27 - 120				08/08/13 09:39	08/10/13 01:18	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	80		0.10	0.10	%			08/06/13 14:11	1

70 - 130

70 - 130

10/8/2013

TestAmerica Job ID: 490-32448-1

Lab Sample ID: 490-32448-3

08/07/13 17:38

08/08/13 20:53

08/06/13 14:08

08/06/13 14:13

Matrix: Solid

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

Lab Sample ID: 490-32175-A-2-D MS Matrix: Solid Analysis Batch: 98313

Analysis Batch: 98313	Sample	Sample	Spike	MS	MS				Prep Batch: 97356 %Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	ND		0.0525	0.02165		mg/Kg	32	41	31 - 143
Ethylbenzene	ND		0.0525	0.007450	F	mg/Kg	12	14	23 - 161
Naphthalene	ND		0.0525	0.005081	J	mg/Kg	5	10	10 - 176
Toluene	ND		0.0525	0.01517	F	mg/Kg	ä	29	30 - 155
Xylenes, Total	ND		0.105	0.01480	F	mg/Kg	n	14	25 - 162
	MS	MS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	98		70 - 130						
4-Bromofluorobenzene (Surr)	100		70 - 130						
Dibromofluoromethane (Surr)	103		70 - 130						
Toluene-d8 (Surr)	101		70 - 130						

Lab Sample ID: 490-32175-A-2-E MSD Matrix: Solid Analysis Batch: 98313

randigolo Batolii ocoro										Datom	01000
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		0.0506	0.04685	F	mg/Kg	¥2	93	31 - 143	74	50
Ethylbenzene	ND		0.0506	0.04374	F	mg/Kg	22	86	23 - 161	142	50
Naphthalene	ND		0.0506	0.04500	F	mg/Kg	a	89	10 - 176	159	50
Toluene	ND		0.0506	0.04463	F	mg/Kg	12	88	30 - 155	99	50
Xylenes, Total	ND		0.101	0.08749	F	mg/Kg	23	86	25 - 162	142	50
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	97		70 - 130								

70 - 130 70 - 130

70 - 130

Lab Sample ID: MB 490-98313/10 Matrix: Solid

100

103

100

Analysis Batch: 98313

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			08/07/13 15:14	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			08/07/13 15:14	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			08/07/13 15:14	1
Toluene	ND		0.00200	0.000740	mg/Kg			08/07/13 15:14	1
Xylenes, Total	ND		0.00300	0.000670	mg/Kg			08/07/13 15:14	1
	MB	МВ							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130					08/07/13 15:14	1
4-Bromofluorobenzene (Surr)	99		70 - 130					08/07/13 15:14	1
Dibromofluoromethane (Surr)	100		70 - 130					08/07/13 15:14	1
Toluene-d8 (Surr)	100		70 - 130					08/07/13 15:14	1

TestAmerica Nashville

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Client Sample ID: Ma	trix Spike Duplicate
	Prep Type: Total/NA

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 97356

7

9

Client Sample ID: Lab Control Sample

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

102

102

Lab Sample ID: LCS 490-98313/3 Matrix: Solid Analysis Batch: 98313

Analysis Datch. 30313									
			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene			0.0500	0.05449		mg/Kg		109	75 - 127
Ethylbenzene			0.0500	0.05635		mg/Kg		113	80 - 134
Naphthalene			0.0500	0.06385		mg/Kg		128	69 - 150
Toluene			0.0500	0.05332		mg/Kg		107	80 - 132
Xylenes, Total			0.100	0.1093		mg/Kg		109	80 - 137
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	96		70 - 130						
4-Bromofluorobenzene (Surr)	98		70 - 130						

70 - 130

70 - 130

Lab Sample ID: LCSD 490-98313/4
Matrix: Solid
Watrix. Solid

Analysis Batch: 98313

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

		Spike	LCSD	LCSD				%Rec.		RPD
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene		0.0500	0.05536		mg/Kg		111	75 - 127	2	50
Ethylbenzene		0.0500	0.05575		mg/Kg		111	80 - 134	1	50
Naphthalene		0.0500	0.06436		mg/Kg		129	69 - 150	1	50
Toluene		0.0500	0.05307		mg/Kg		106	80 - 132	0	50
Xylenes, Total		0.100	0.1090		mg/Kg		109	80 - 137	0	50
	LCSD LCSD									

Surrogate	%Recovery	Qualifier		Limits
1,2-Dichloroethane-d4 (Surr)	96			70 - 130
4-Bromofluorobenzene (Surr)	99			70 - 130
Dibromofluoromethane (Surr)	101		8	70 - 130
Toluene-d8 (Surr)	100			70 - 130

Lab Sample ID: MB 490-98594/9 Matrix: Solid

Analysis Batch: 98594

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0340	mg/Kg			08/08/13 14:25	1
Ethylbenzene	ND		0.100	0.0340	mg/Kg			08/08/13 14:25	1
Naphthalene	ND		0.250	0.0850	mg/Kg			08/08/13 14:25	1
Toluene	0.03926	J	0.100	0.0370	mg/Kg			08/08/13 14:25	1
Xylenes, Total	ND		0.150	0.0340	mg/Kg			08/08/13 14:25	1
	MB	мв							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		70 - 130					08/08/13 14:25	1
4-Bromofluorobenzene (Surr)	99		70 - 130					08/08/13 14:25	1
Dibromofluoromethane (Surr)	96		70 - 130					08/08/13 14:25	1
Toluene-d8 (Surr)	101		70 - 130					08/08/13 14:25	1

TestAmerica Nashville

Prep Type: Total/NA

5

7

9

13

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

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

10/8/2013

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

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

Lab Sample ID: LCS 490-98594/3 Matrix: Solid Analysis Batch: 98594

rindigene Baterin Cooce			Spike	LCS	LCS				%Rec.
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene			0.0500	0.05164		mg/Kg		103	75 - 127
Ethylbenzene			0.0500	0.05120		mg/Kg		102	80 - 134
Naphthalene			0.0500	0.05964		mg/Kg		119	69 - 150
Toluene			0.0500	0.04995		mg/Kg		100	80 - 132
Xylenes, Total			0.100	0.1018		mg/Kg		102	80 - 137
	LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4 (Surr)	99		70 - 130						
4-Bromofluorobenzene (Surr)	99		70 - 130						

130 130

1,2-Dichloroethane-d4 (Surr)	99	70 -
4-Bromofluorobenzene (Surr)	99	70 -
Dibromofluoromethane (Surr)	104	70 -
Toluene-d8 (Surr)	99	70 -

Lab Sample ID: LCSD 490-98594/4 Matrix: Solid Analysis Batch: 98594

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

and a second second second			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.0500	0.05154		mg/Kg		103	75 - 127	0	50
Ethylbenzene			0.0500	0.05225		mg/Kg		105	80 - 134	2	50
Naphthalene			0.0500	0.06293		mg/Kg		126	69 - 150	5	50
Toluene			0.0500	0.04996		mg/Kg		100	80 - 132	0	50
Xylenes, Total			0.100	0.1044		mg/Kg		104	80 - 137	3	50
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	96		70 - 130								
4-Bromofluorobenzene (Surr)	99		70 - 130								

70 - 130

70 - 130

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

103

100

Lab Sample ID: MB 490-98575/1-A							Client Sa	mple ID: Metho	d Blank
Matrix: Solid								Prep Type: 1	Total/NA
Analysis Batch: 98958								Prep Batch	h: 98575
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Anthracene	ND		0.0670	0.00900	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Pyrene	ND		0.0670	0.0120	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		08/08/13 09:39	08/09/13 17:41	1

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

53

Lab Sample ID: MB 490-98575/1-A Matrix: Solid Analysis Batch: 98958

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.0670	0.00900	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Fluorene	ND		0.0670	0.0120	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		08/08/13 09:39	08/09/13 17:41	1
	МВ	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		29 - 120				08/08/13 09:39	08/09/13 17:41	1
Terphenyl-d14 (Surr)	69		13 - 120				08/08/13 09:39	08/09/13 17:41	1

27.120

Lab Sample ID: LCS 490-98575/2-A Matrix: Solid

Analysis Batch: 98958

Nitrobenzene-d5 (Surr)

Analysis Baten. Soboo	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1.485		mg/Kg		89	38 - 120
Anthracene	1.67	1.541		mg/Kg		92	46 - 124
Benzo[a]anthracene	1.67	1.474		mg/Kg		88	45 - 120
Benzo[a]pyrene	1.67	1.509		mg/Kg		91	45 - 120
Benzo[b]fluoranthene	1.67	1.621		mg/Kg		97	42 - 120
Benzo[g,h,i]perylene	1.67	1.535		mg/Kg		92	38 - 120
Benzo[k]fluoranthene	1.67	1.490		mg/Kg		89	42 - 120
1-Methylnaphthalene	1.67	1.353		mg/Kg		81	32 - 120
Pyrene	1.67	1.522		mg/Kg		91	43 - 120
Phenanthrene	1.67	1.525		mg/Kg		91	45 - 120
Chrysene	1.67	1.538		mg/Kg		92	43 - 120
Dibenz(a,h)anthracene	1.67	1.594		mg/Kg		96	32 - 128
Fluoranthene	1.67	1.541		mg/Kg		92	46 - 120
Fluorene	1.67	1.540		mg/Kg		92	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.538		mg/Kg		92	41 - 121
Naphthalene	1.67	1.261		mg/Kg		76	32 - 120
2-Methylnaphthalene	1.67	1.346		mg/Kg		81	28 - 120

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	63		29 - 120
Terphenyl-d14 (Surr)	72		13 - 120
Nitrobenzene-d5 (Surr)	60		27 - 120

Lab Sample ID: 490-32009-A-1-B MS Matrix: Solid

Analysis Batch: 98958

Analysis Batch: 98958									Prep Bat	ch: 98575
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene	0.0949		1.66	1.172		mg/Kg	ä	65	25 - 120	
Anthracene	0.357		1.66	1.193		mg/Kg	α	50	28 - 125	

TestAmerica Nashville

Prep Type: Total/NA

Client Sample ID: Matrix Spike

Prep Type: Total/NA Prep Batch: 98575

13

TestAmerica Job ID: 490-32448-1

Client Sample ID: Method Blank

08/09/13 17:41

Client Sample ID: Lab Control Sample

08/08/13 09:39



Client Sample ID: Matrix Spike

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

13

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

59

58

Lab Sample ID: 490-32009-A-1-B MS Matrix: Solid

Euro outtiple int. too oneooo /								Guidin	oumpre in. muti	in opine
Matrix: Solid									Prep Type: 1	fotal/NA
Analysis Batch: 98958									Prep Batch	n: 98575
	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzo[a]anthracene	1.00		1.66	1.467		mg/Kg	10	28	23 - 120	
Benzo[a]pyrene	0.953		1.66	1.526		mg/Kg	11	34	15 - 128	
Benzo[b]fluoranthene	1.38		1.66	1.752		mg/Kg	-0	22	12 - 133	
Benzo[g,h,i]perylene	0.604		1.66	1.370		mg/Kg	Ø	46	22 - 120	
Benzo[k]fluoranthene	0.463		1.66	1.355		mg/Kg	ø	54	28 - 120	
1-Methylnaphthalene	0.0342	J	1.66	1.073		mg/Kg	33	62	10 - 120	
Pyrene	2.00		1.66	1.876	F	mg/Kg	12	-7	20 - 123	
Phenanthrene	1.66		1.66	1.434	F	mg/Kg	13	-14	21 - 122	
Chrysene	0.930		1.66	1.475		mg/Kg	Ø	33	20 - 120	
Dibenz(a,h)anthracene	0.132		1.66	1.197		mg/Kg	×.	64	12 - 128	
Fluoranthene	2.19		1.66	1.634	F	mg/Kg	ü	-33	10 - 143	
Fluorene	0.165		1.66	1.160		mg/Kg	13	60	20 - 120	
Indeno[1,2,3-cd]pyrene	0.526		1.66	1.330		mg/Kg	n	48	22 - 121	
Naphthalene	0.0826		1.66	1.019		mg/Kg	10	56	10 - 120	
2-Methylnaphthalene	0.0368	J	1.66	1.035		mg/Kg	a	60	13 - 120	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
2-Fluorobiphenyl (Surr)	44		29 - 120							

13 - 120

27 - 120

Lab Sample ID: 490-32009-A-1-C MSD Matrix: Solid

Analysis Batch: 98958

Terphenyl-d14 (Surr)

Terphenyl-d14 (Surr)

Nitrobenzene-d5 (Surr)

										Jpc. 10	
Analysis Batch: 98958	Comple	Sample	Spike	MSD	MSD				%Rec.	Batch:	98575 RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	0.0949		1.65	1.120		mg/Kg	10	62	25 - 120	5	50
Anthracene	0.357		1.65	1.144		mg/Kg		48	28 - 125	4	49
Benzo[a]anthracene	1.00		1.65	1.461		mg/Kg	12	28	23 - 120	0	50
Benzo[a]pyrene	0.953		1.65	1.483		mg/Kg	2,5	32	15 - 128	3	50
Benzo[b]fluoranthene	1.38		1.65	1.702		mg/Kg	a	19	12 - 133	3	50
Benzo[g,h,i]perylene	0.604		1.65	1.343		mg/Kg	n	45	22 - 120	2	50
Benzo[k]fluoranthene	0.463		1.65	1.373		mg/Kg	Ø	55	28 - 120	1	45
1-Methylnaphthalene	0.0342	J	1.65	0.9343		mg/Kg	a	55	10 - 120	14	50
Pyrene	2.00		1.65	1.908	F	mg/Kg	d	-6	20 - 123	2	50
Phenanthrene	1.66		1.65	1.435	F	mg/Kg	17	-14	21 - 122	0	50
Chrysene	0.930		1.65	1.485		mg/Kg	12	34	20 - 120	1	49
Dibenz(a,h)anthracene	0.132		1.65	1.279		mg/Kg	ŋ	70	12 - 128	7	50
Fluoranthene	2.19		1.65	1.571	F	mg/Kg	12	-38	10 - 143	4	50
Fluorene	0.165		1.65	1.123		mg/Kg	n	58	20 - 120	3	50
Indeno[1,2,3-cd]pyrene	0.526		1.65	1.294		mg/Kg	12	47	22 - 121	3	50
Naphthalene	0.0826		1.65	0.9171		mg/Kg	斑	51	10 - 120	10	50
2-Methylnaphthalene	0.0368	J	1.65	0.9464		mg/Kg	ц	55	13 - 120	9	50
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
2-Fluorobiphenyl (Surr)	37		29 - 120								

55

13 - 120

TestAmerica Job ID: 490-32448-1

13

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

Lab Sample ID: 490-32009-A-1-C N Matrix: Solid	ISD					(Client San	nple ID: Matrix Spike Dup Prep Type: Tot	tal/NA
Analysis Batch: 98958								Prep Batch:	98575
	MSD	MSD							
Surrogate %	Recovery	Qualifier	Limits						
Nitrobenzene-d5 (Surr)	52		27 - 120						
Method: Moisture - Percent M	oisture								
Lab Sample ID: 490-32275-A-3 DU								Client Sample ID: Dup	olicate
Matrix: Solid								Prep Type: Tot	tal/NA
Analysis Batch: 98019									
	Sample	Sample		DU	DU				RPD
Analyte	Result	Qualifier		Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	89			89		%		0.05	20

TestAmerica Nashville

QC Association Summary

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-32448-1

GC/MS VOA

Prep Batch: 97356

Prep Batch: 97356					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32175-A-2-D MS	Matrix Spike	Total/NA	Solid	5030B	
490-32175-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5030B	
Prep Batch: 98103					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32448-1	694 Abelia	Total/NA	Solid	5035	
490-32448-2	1061-1 Gardenia	Total/NA	Solid	5035	
490-32448-3	1429 Albatross	Total/NA	Solid	5035	
Prep Batch: 98105					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32448-2	1061-1 Gardenia	Total/NA	Solid	5035	
490-32448-3	1429 Albatross	Total/NA	Solid	5035	
Analysis Batch: 98313					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32175-A-2-D MS	Matrix Spike	Total/NA	Solid	8260B	97356
490-32175-A-2-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	97356
490-32448-1	694 Abelia	Total/NA	Solid	8260B	98103
490-32448-2	1061-1 Gardenia	Total/NA	Solid	8260B	98103
490-32448-3	1429 Albatross	Total/NA	Solid	8260B	98103
LCS 490-98313/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-98313/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-98313/10	Method Blank	Total/NA	Solid	8260B	
Analysis Batch: 98594					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32448-2	1061-1 Gardenia	Total/NA	Solid	8260B	98105
490-32448-3	1429 Albatross	Total/NA	Solid	8260B	98105

GC/MS Semi VOA

Lab Control Sample

Method Blank

694 Abelia

Lab Control Sample Dup

Prep Batch: 98575

490-32448-1

LCS 490-98594/3

MB 490-98594/9

LCSD 490-98594/4

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32009-A-1-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-32009-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
490-32448-1	694 Abelia	Total/NA	Solid	3550C	
490-32448-2	1061-1 Gardenia	Total/NA	Solid	3550C	
490-32448-3	1429 Albatross	Total/NA	Solid	3550C	
LCS 490-98575/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-98575/1-A	Method Blank	Total/NA	Solid	3550C	
Analysis Batch: 98958					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32009-A-1-B MS	Matrix Spike	Total/NA	Solid	8270D	98575
490-32009-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	98575

Total/NA

Total/NA

Total/NA

Solid

Solid

Solid

Solid

8260B

8260B

8260B

8270D

TestAmerica Nashville

Total/NA

98575

QC Association Summary

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-32448-1

GC/MS Semi VOA (Continued)

Analysis Batch: 98958 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32448-3	1429 Albatross	Total/NA	Solid	8270D	98575
_CS 490-98575/2-A	Lab Control Sample	Total/NA	Solid	8270D	98575
MB 490-98575/1-A	Method Blank	Total/NA	Solid	8270D	98575
nalysis Batch: 99139					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32448-2	1061-1 Gardenia	Total/NA	Solid	8270D	98575
490-32448-3	1429 Albatross	Total/NA	Solid	8270D	9857

General Chemistry

Analysis Batch: 98019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-32275-A-3 DU	Duplicate	Total/NA	Solid	Moisture	
490-32448-1	694 Abelia	Total/NA	Solid	Moisture	
490-32448-2	1061-1 Gardenia	Total/NA	Solid	Moisture	
490-32448-3	1429 Albatross	Total/NA	Solid	Moisture	

Date Collected: 07/29/13 14:45 Date Received: 08/06/13 08:15

Lab Sample ID: 490-32448-1 Matrix: Solid Percent Solids: 89.3

Lab Sample ID: 490-32448-2

Matrix: Solid Percent Solids: 68.1 4

5

8

9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			98103	08/06/13 14:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	98313	08/07/13 16:44	MJH	TAL NSH
Total/NA	Prep	3550C			98575	08/08/13 09:39	JLP	TAL NSH
Total/NA	Analysis	8270D		1	98958	08/10/13 00:32	JLS	TAL NSH
Total/NA	Analysis	Moisture		1	98019	08/06/13 14:11	RRS	TAL NSH

Client Sample ID: 1061-1 Gardenia

Date Collected: 07/30/13 14:30

Date Received: 08/06/13 08:	15
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	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			98103	08/06/13 14:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	98313	08/07/13 17:11	MJH	TAL NSH
Total/NA	Prep	5035			98105	08/06/13 14:13	GLN	TAL NSH
Total/NA	Analysis	8260B		1	98594	08/08/13 19:58	MJH	TAL NSH
Total/NA	Prep	3550C			98575	08/08/13 09:39	JLP	TAL NSH
Total/NA	Analysis	8270D		10	99139	08/10/13 19:46	JLS	TAL NSH
Total/NA	Analysis	Moisture		1	98019	08/06/13 14:11	RRS	TAL NSH

Client Sample ID: 1429 Albatross

Date Collected: 07/31/13 14:45 Date Received: 08/06/13 08:15 Lab Sample ID: 490-32448-3

Matrix: Solid Percent Solids: 79.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			98103	08/06/13 14:08	GLN	TAL NSH
Total/NA	Analysis	8260B		1	98313	08/07/13 17:38	MJH	TAL NSH
Total/NA	Prep	5035			98105	08/06/13 14:13	GLN	TAL NSH
Total/NA	Analysis	8260B		1	98594	08/08/13 20:53	MJH	TAL NSH
Total/NA	Analysis	8270D		1	98958	08/10/13 01:18	JLS	TAL NSH
Total/NA	Prep	3550C			98575	08/08/13 09:39	JLP	TAL NSH
Total/NA	Analysis	8270D		10	99139	08/10/13 20:08	JLS	TAL NSH
Total/NA	Analysis	Moisture		1	98019	08/06/13 14:11	RRS	TAL NSH

Laboratory References:

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

TestAmerica Job ID: 490-32448-1

Method	Method Description	Protocol	Laboratory
3260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
3270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NSH
Aoisture	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

TestAmerica Nashville

Certification Summary

Client: Small Business Group Inc. Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-32448-1

Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	ISO/IEC 17025		0453.07	12-31-13
AIHA	IHLAP		100790	09-01-13
Alaska (UST)	State Program	10	UST-087	07-24-14
Arizona	State Program	9	AZ0473	05-05-14
Arizona	State Program	9	AZ0473	05-05-14 *
Arkansas DEQ	State Program	6	88-0737	04-25-14
California	NELAP	9	1168CA	10-31-13
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-14
llinois	NELAP	5	200010	12-09-13
owa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	06-30-14
ouisiana	NELAP	6	30613	06-30-14
Maryland	State Program	3	316	03-31-14
Massachusetts	State Program	1	M-TN032	06-30-14
Ainnesota	NELAP	5	047-999-345	12-31-13
Aississippi	State Program	4	N/A	06-30-14
Nontana (UST)	State Program	8	NA	01-01-20
Nevada	State Program	9	TN00032	07-31-14
New Hampshire	NELAP	1	2963	10-10-14
New Jersey	NELAP	2	TN965	06-30-14
New York	NELAP	2	11342	04-01-14
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-14
Dhio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-14
Dregon	NELAP	10	TN200001	04-29-14
Pennsylvania	NELAP	3	68-00585	06-30-14
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-14
JSDA	Federal		S-48469	11-02-13
Jtah	NELAP	8	TN00032	07-31-14
/irginia	NELAP	3	460152	06-14-14
Vashington	State Program	10	C789	07-19-14
West Virginia DEP	State Program	3	219	02-28-14
Visconsin	State Program	5	998020430	08-31-14
Wyoming (UST)	A2LA	8	453.07	12-31-13

* Expired certification is currently pending renewal and is considered valid.

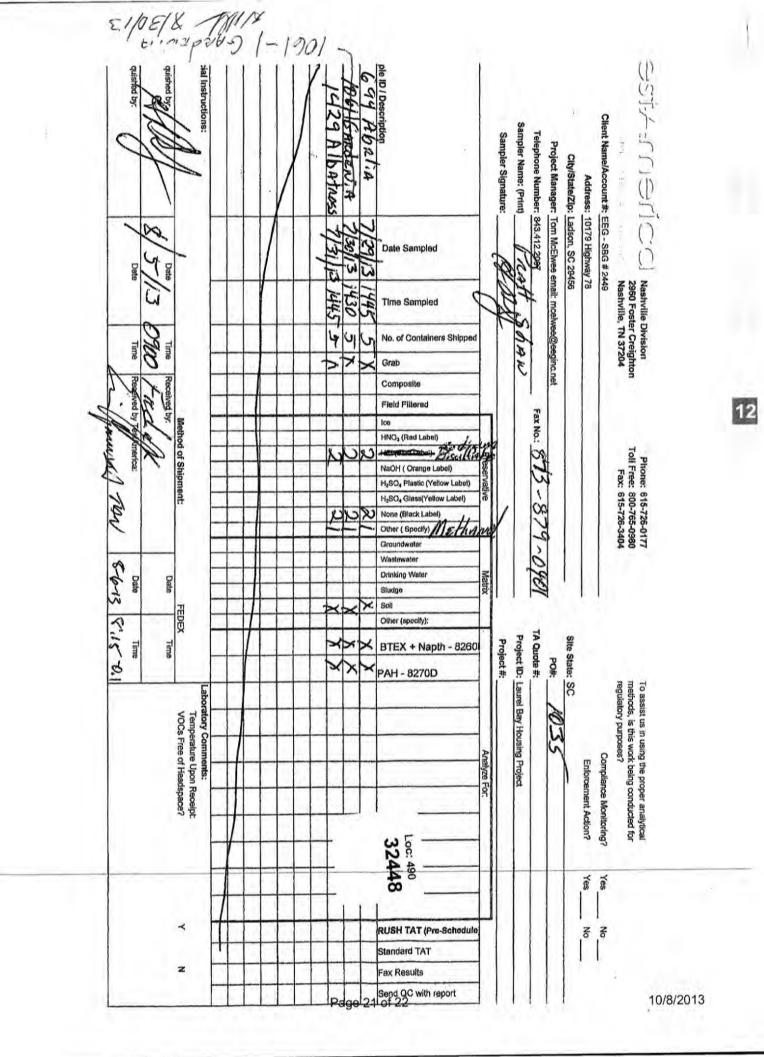
TestAmerica Nashville

THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN COOLER RECEIPT FORM	
Cooler Received/Opened On <u>8/6/2013@ 00815</u>	0-32448 Chain of Custody
1. Tracking # 6/43 (last 4 digits, FedEx)	
Courier: FedEx IR Gun ID 97460373	
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 frozen	YYES NO WA DAC-6-13
4. Were custody seals on outside of cooler?	VES NO NA
If yes, how many and where: One front	
5. Were the seals intact, signed, and dated correctly?	(YES).NONA
5. Were custody papers inside cooler?	YES.NONA
certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES M and Intact	YESNO
Were these signed and dated correctly?	YESNO.
3. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Pap	er Other None
9. Cooling process: Ce-pack Ice (direct contact) Dry ice	ce Other None
10. Did all containers arrive in good condition (unbroken)?	ESNONA
1. Were all container labels complete (#, date, signed, pres., etc)?	ERNONA
2. Did all container labels and tags agree with custody papers?	ERNONA
3a. Were VOA vials received?	ESNONA
b. Was there any observable headspace present in any VOA vial?	YES
4. Was there a Trip Blank in this cooler? YES	nce #
certify that I unloaded the cooler and answered guestions 7-14 (initial)	ZA
5a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level	? YESNQ.NA
b. Did the bottle labels indicate that the correct preservatives were used	ESNONA
6. Was residual chlorine present?	YESNO.
certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	EL4
7. Were custody papers properly filled out (Ink, signed, etc)?	ESNONA
8. Did you sign the custody papers in the appropriate place?	E.NONA
9. Were correct containers used for the analysis requested?	10NA
0. Was sufficient amount of sample sent in each container?	E.NONA
certify that I entered this project into LIMS and answered guestions 17-20 (intial)	2A
certify that I attached a label with the unique LIMS number to each container (intial)	0

BIS = Broken in shipment Cooler Receipt Form.doc

Revised 11/28/12

10/8/2013



Login Sample Receipt Checklist

Client: Small Business Group Inc.

Login Number: 32448 List Number: 1

Creator: Abernathy, Eric

Question	Answer	Comment	
Radioactivity wasn't checked or is = background as measured by a survey<br meter.	N/A		
The cooler's custody seal, if present, is intact.	True		
Sample custody seals, if present, are intact.	True		
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		
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		

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Job Number: 490-32448-1

List Source: TestAmerica Nashville

ATTACHMENT A

NON-HAZARDOUS MANIFEST	I-HAZARDOUS MANIFEST NON-HAZARDOUS Manifest Doc No.		2. Page 1 c	of					
. Generator's Mailing Address: //CAS BEAUFORT AUREL BAY HOUSING	' Ge	Generator's Site Address (If different than mailling): A. Manifest Nu WMN		MNA	01519				
EAUFORT, SC 29904 . Generator's Phone 843-879	0-0411								
Transporter 1 Company Name	cel sue	6. US EPA ID Number		C. State Transporter's ID D. Transporter's Phone (8+(3) 87		879+0	0401		
Transporter 2 Company Name	2 9	8. US EPA ID Number E. State		E. State Tr	Transporter's ID porter's Phone				
Designated Facility Name and Site Address CKORY HILL LANDFILL 521 LOW COUNTRY DRIVE DGELAND, SC 29936		10. US EPA ID Number		G. State Fa H. State Fa	acility ID acility Phone	843-9	87-4643	3	
		A Contraction of the second	12.0	ontainers	13. Total	14. Unit			
1. Description of Waste Materials . HEATING OIL TANK FILLED W	TH SAND		No.	Туре	Quantity	Wt./Vol.	-	to 25	_
WM Profile	# 102655SC		1	doy	1.1-	ION	112	0.00	
WM Profile #									
WM Profile #			1						
L.		1							
WM Profile # Additional Descriptions for Materia	Is Listed Above		K. Dispo	sal Location				-	
			Cell Grid	-			Level		
5. Special Handling Instructions and A UST'S FROM D 2 08 BASAM Purchase Order #	dditional Informatio	02 BALSA, 02 Engl	CONTACT/PH	802 872 (HONE NO.:	Azal Cobia	V K	694	Abs -	Tin
 GENERATOR'S CERTIFICATE: hereby certify that the above-describe ccurately described, classified and pac 							, have been	fully and	8
rinted Name	wha	Signature "On b		ally	Whe	alley	Month 8	Day 19	Year
Printed Name PRAH	ShAN) Signature	4AS	20		U	Month	Day 14	Year
 Transporter 2 Acknowledgement of Printed Name 	Receipt of Materia	Signature	0				Month	Day	Year
JAMES BALL	UIN	Dam	us B	aldu	h		8	14	13
9. Certificate of Final Treatment/Dispo		at to the best of my kno	owledge, the a	bove-descril	oed waste wa	as managed in	n compliance	e with all	
		ites listed above							
certify, on behalf of the above listed tr pplicable laws, regulations, permits an 0. Facility Owner or Operator: Certific	d licenses on the da		Is covered by	this manifest					

Appendix C 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: No Further Action 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 Tanks (USTs) 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 <u>et seq</u>., 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 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

Attachment to:	Krieg to Drawdy
	Subject: NFA
	Dated 7/1/2015

Laurel Bay Underground Storage Tank Assessment Reports for: (153 addresses/161 tanks)

111 Birch	363 Aspen
123 Banyan	364 Aspen
131 Banyan	366 Aspen
134 Banyan	369 Aspen
145 Laurel Bay	373 Aspen
150 Laurel Bay	381 Aspen
153 Laurel Bay	401 Elderberry
154 Laurel Bay	402 Elderberry
155 Laurel Bay	404 Elderberry
200 Balsam	410 Elderberry
202 Balsam	420 Elderberry
203 Balsam	424 Elderberry
208 Balsam	435 Elderberry Tank 3
210 Balsam	452 Elderberry
211 Balsam	460 Elderberry
220 Cypress	465 Dogwood
222 Cypress	477 Laurel Bay
223 Cypress	487Laurel Bay
252 Beech Tank 2	513 Laurel Bay
271 Beech Tank 1	519 Laurel Bay
271 Beech Tank 2	524 Laurel Bay
284 Birch Tank 1	535 Laurel Bay
284 Birch Tank 2	553 Dahlia
308 Ash	590 Aster
311 Ash	591 Aster
312 Ash	610 Dahlia
317 Ash	612 Dahlia
318 Ash	628 Dahlia
337 Ash	636 Dahlia
351 Ash Tank 1	637 Dahlia Tank 1
351 Ash Tank 2	637 Dahlia Tank 2
355 Ash Tank 1	641 Dahlia
355 Ash Tank 2	642 Dahlia Tank 1
360 Aspen	642 Dahlia Tank 2

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL 2600 Bull Street • Columbia, SC 29201 • Phone: (803) 898-3432 • www.scdhec.gov Laurel Bay Underground Storage Tank Assessment Reports for: (153 addresses/161 tanks) cont.

655 Camellia	920 Albacore
662 Camellia	922 Barracuda Tank 1
683 Camellia	922 Barracuda Tank 2
684 Camellia	924 Albacore
689 Abelia	925 Albacore
694 Abelia	926 Albacore
695 Abelia	930 Albacore
741 Blue Bell	931 Albacore
742 Blue Bell	933 Albacore
755 Althea	936 Albacore
757 Althea	938 Albacore
776 Laurel Bay	939 Albacore
777 Azalea	940 Albacore
779 Laurel Bay	1010 Foxglove
781 Laurel Bay	1066 Gardenia
802 Azalea	1068 Gardenia
816 Azalea	1071 Heather Tank 2
822 Azalea	1100 Iris Tank 2
823 Azalea	1128 Iris
825 Azalea	1178 Bobwhite
828 Azalea	1204 Cardinal
837 Azalea	1208 Cardinal
851 Dolphin	1209 Cardinal
856 Dolphin	1210 Cardinal
857 Dolphin	1215 Cardinal
861 Dolphin	1216 Cardinal
864 Dolphin	1217 Cardinal Tank 1
868 Dolphin	1217 Cardinal Tank 2
872 Dolphin	1233 Dove
879 Cobia	1244 Dove
886 Cobia	1250 Dove
888 Cobia	1252 Dove
889 Cobia	1254 Dove
901 Barracuda	1256 Dove
902 Barracuda	1258 Dove
903 Barracuda	1263 Dove
904 Barracuda	1269 Dove
909 Barracuda	1276 Dove
910 Barracuda	1283 Dove
914 Barracuda	1285 Dove
915 Barracuda	1288 Eagle

Laurel Bay Underground Storage Tank Assessment Reports for: (153 addresses/161 tanks) cont.

1296 Eagle	1330 Albatross
1307 Eagle	1331 Albatross
1321 Albatross	1333 Albatross
1322 Albatross	1334 Albatross
1327 Albatross	1335 Albatross
1328 Albatross	