

SUMMARY REPORT
533 DAHLIA DRIVE (FORMERLY 636 DAHLIA DRIVE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0
Prepared for:

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

and



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

JUNE 2021

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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
CTO	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 533 Dahlia Drive (Formerly 636 Dahlia Drive). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

1.1 Background Information

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

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 533 Dahlia Drive (Formerly 636 Dahlia Drive). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 636 Dahlia Drive* (MCAS Beaufort, 2015). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On December 10, 2014, a single 280 gallon heating oil UST was removed from the rear patio area at 533 Dahlia Drive (Formerly 636 Dahlia Drive). 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

5'9" 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 533 Dahlia Drive (Formerly 636 Dahlia Drive) 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 533 Dahlia Drive (Formerly 636 Dahlia Drive). 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, 2015. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 636 Dahlia Drive, Laurel Bay Military Housing Area*, March 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 1
Laboratory Analytical Results - Soil
533 Dahlia Drive (Formerly 636 Dahlia Drive)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 12/10/14
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 Analyzed by EPA Method 8270D (mg/kg)		
Benzo(a)anthracene	0.66	0.212
Benzo(b)fluoranthene	0.66	0.150
Benzo(k)fluoranthene	0.66	0.0704
Chrysene	0.66	0.242
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

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



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

SC DHEC - Bureau of
 Land & Waste Management

I. OWNERSHIP OF UST (S)

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

II. SITE IDENTIFICATION AND LOCATION

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

III. INSURANCE INFORMATION

Insurance Statement

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

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

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

My policy provider is: _____

The policy deductible is: _____

The policy limit is: _____

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

IV. REQUEST FOR SUPERB FUNDING

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

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

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

Name (Type or print.)

Signature

To be completed by Notary Public:

Sworn before me this _____ day of _____, 20____

(Name)

Notary Public for the state of _____.
Please affix State seal if you are commissioned outside South Carolina

VI. UST INFORMATION

A. Product...(ex. Gas, Kerosene).....

B. Capacity..(ex. 1k, 2k).....

C. Age.....

D. Construction Material..(ex. Steel, FRP).....

E. Month/Year of Last Use.....

F. Depth (ft.) To Base of Tank.....

G. Spill Prevention Equipment Y/N.....

H. Overfill Prevention Equipment Y/N.....

I. Method of Closure Removed/Filled.....

J. Date Tanks Removed/Filled.....

K. Visible Corrosion or Pitting Y/N.....

L. Visible Holes Y/N.....

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)

UST 636Dahlia was removed from the ground and disposed at a
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 636Dahlia 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.

636Dahlia				
Heating oil				
280 gal				
Late 1950s				
Steel				
Mid 1980s				
5'9"				
No				
No				
Removed				
12/10/14				
Yes				
Yes				

VII. PIPING INFORMATION

A. Construction Material..(ex. Steel, FRP).....

B. Distance from UST to Dispenser.....

C. Number of Dispensers.....

D. Type of System Pressure or Suction.....

E. Was Piping Removed from the Ground? Y/N

F. Visible Corrosion or Pitting Y/N.....

G. Visible Holes Y/N.....

H. Age.....

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

636Dahlia				
Steel & Copper				
N/A				
N/A				
Suction				
No				
Yes				
No				
Late 1950s				

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.

IX. SITE CONDITIONS

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

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
636 Dahlia	Excav at fill end	Soil	Sandy	5'9"	12/10/14 1115 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

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

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

XII. RECEPTORS

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

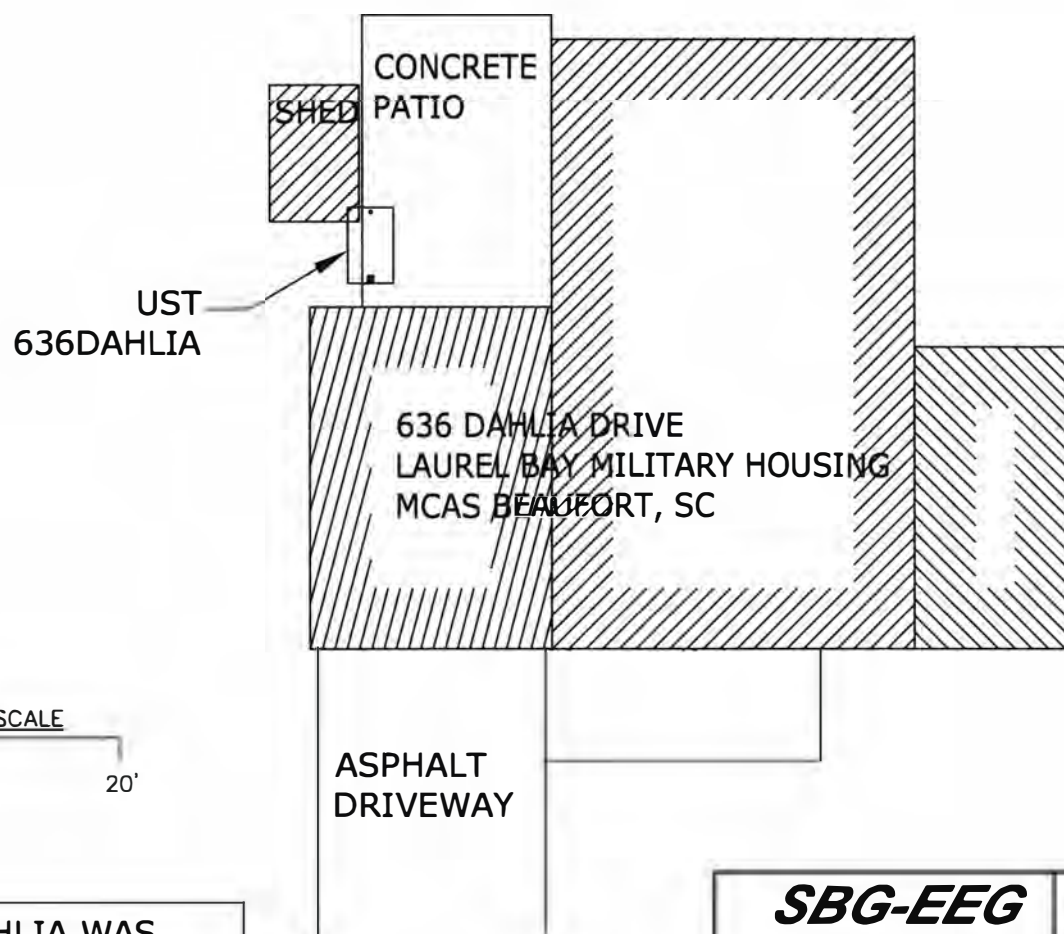
XIII. SITE MAP

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

(Attach Site Map Here)



STORMWATER DRAINAGE CANAL \approx 900'



GRAPHIC SCALE

0 5' 10' 20'

UST 636DAHLIA WAS
33" BELOW GRADE.

SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-9643
(843) 573-7140

FIGURE 1 SITE MAP
636 DAHLIA DRIVE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE FEB 2015



GRASS

CONCRETE PATIO

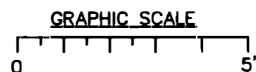
UST 636 DAHLIA,
280 GAL.

SOIL SAMPLE
636 DAHLIA

FILL END

*EXCAVATION

REAR OF
636 DAHLIA DRIVE



*NOTE: A PORTION OF THE PATIO
WAS REMOVED TO FACILITATE
TANK EXTRACTION.

SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-9643
(843) 573-7140

FIGURE 2 UST SAMPLE LOCATION
636 DAHLIA DRIVE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE FEB 2015



Picture 1: Location of UST 636Dahlia.



Picture 2: UST 636Dahlia excavation.



Picture 3: Tank pit from a different angle.



Picture 4: Site after tank removal is completed.

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	636Dahlia						
Benzene		ND						
Toluene		ND						
Ethylbenzene		ND						
Xylenes		ND						
Naphthalene		ND						
Benzo (a) anthracene		0.212 mg/kg						
Benzo (b) fluoranthene		0.150 mg/kg						
Benzo (k) fluoranthene		0.0704 mg/kg						
Chrysene		0.242 mg/kg						
Dibenz (a, h) anthracene		ND						
TPH (EPA 3550)								

CoC								
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo (a) anthracene								
Benzo (b) fluoranthene								
Benzo (k) fluoranthene								
Chrysene								
Dibenz (a, h) anthracene								
TPH (EPA 3550)								

SUMMARY OF ANALYSIS RESULTS (cont'd)

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

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

XV. ANALYTICAL RESULTS

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

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

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

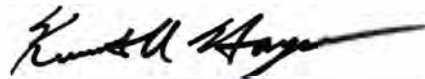
TestAmerica Job ID: 490-68644-1

Client Project/Site: Laurel Bay Housing Project

For:

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

Attn: Tom McElwee



Authorized for release by:
12/22/2014 2:06:56 PM

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

LINKS

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results through

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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.

1

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Sample Summary

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

TestAmerica Job ID: 490-68644-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-68644-1	487 Laurel Bay	Soil	12/08/14 14:00	12/12/14 08:45
490-68644-2	612 Dahlia	Soil	12/09/14 13:15	12/12/14 08:45
490-68644-3	636 Dahlia	Soil	12/10/14 11:15	12/12/14 08:45

Case Narrative

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

TestAmerica Job ID: 490-68644-1

Job ID: 490-68644-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative
490-68644-1

Comments

No additional comments.

Receipt

The samples were received on 12/12/2014 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

GC/MS VOA

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

GC/MS Semi VOA

No analytical or quality issues were noted, other than those described 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

TestAmerica Job ID: 490-68644-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	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 Sample Results

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

TestAmerica Job ID: 490-68644-1

Client Sample ID: 487 Laurel Bay

Date Collected: 12/08/14 14:00

Date Received: 12/12/14 08:45

Lab Sample ID: 490-68644-1

Matrix: Soil

Percent Solids: 95.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00260	0.000872	mg/Kg	☒	12/13/14 19:04	12/16/14 21:28	1
Ethylbenzene	ND		0.00260	0.000872	mg/Kg	☒	12/13/14 19:04	12/16/14 21:28	1
Naphthalene	ND		0.00651	0.00221	mg/Kg	☒	12/13/14 19:04	12/16/14 21:28	1
Toluene	ND		0.00260	0.000963	mg/Kg	☒	12/13/14 19:04	12/16/14 21:28	1
Xylenes, Total	ND		0.00390	0.000872	mg/Kg	☒	12/13/14 19:04	12/16/14 21:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130	12/13/14 19:04	12/16/14 21:28	1
4-Bromofluorobenzene (Surr)	115		70 - 130	12/13/14 19:04	12/16/14 21:28	1
Dibromofluoromethane (Surr)	103		70 - 130	12/13/14 19:04	12/16/14 21:28	1
Toluene-d8 (Surr)	103		70 - 130	12/13/14 19:04	12/16/14 21:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0665	0.00992	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Acenaphthylene	ND		0.0665	0.00893	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Anthracene	ND		0.0665	0.00893	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Benzo[a]anthracene	ND		0.0665	0.0149	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Benzo[a]pyrene	ND		0.0665	0.0119	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Benzo[b]fluoranthene	ND		0.0665	0.0119	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Benzo[g,h,i]perylene	ND		0.0665	0.00893	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Benzo[k]fluoranthene	ND		0.0665	0.0139	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
1-Methylnaphthalene	ND		0.0665	0.0139	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Pyrene	ND		0.0665	0.0119	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Phenanthrene	ND		0.0665	0.00893	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Chrysene	ND		0.0665	0.00893	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Dibenz(a,h)anthracene	ND		0.0665	0.00695	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Fluoranthene	ND		0.0665	0.00893	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Fluorene	ND		0.0665	0.0119	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Indeno[1,2,3-cd]pyrene	ND		0.0665	0.00992	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
Naphthalene	ND		0.0665	0.00893	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1
2-Methylnaphthalene	ND		0.0665	0.0159	mg/Kg	☒	12/17/14 12:47	12/17/14 22:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		29 - 120	12/17/14 12:47	12/17/14 22:56	1
Terphenyl-d14 (Surr)	81		13 - 120	12/17/14 12:47	12/17/14 22:56	1
Nitrobenzene-d5 (Surr)	64		27 - 120	12/17/14 12:47	12/17/14 22:56	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10	0.10	%			12/15/14 09:11	1

TestAmerica Nashville

Client Sample Results

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

TestAmerica Job ID: 490-68644-1

Client Sample ID: 612 Dahlia

Date Collected: 12/09/14 13:15

Date Received: 12/12/14 08:45

Lab Sample ID: 490-68644-2

Matrix: Soil

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00242	0.000811	mg/Kg	☒	12/13/14 19:04	12/16/14 21:59	1
Ethylbenzene	ND		0.00242	0.000811	mg/Kg	☒	12/13/14 19:04	12/16/14 21:59	1
Naphthalene	ND		0.00605	0.00206	mg/Kg	☒	12/13/14 19:04	12/16/14 21:59	1
Toluene	ND		0.00242	0.000895	mg/Kg	☒	12/13/14 19:04	12/16/14 21:59	1
Xylenes, Total	ND		0.00363	0.000811	mg/Kg	☒	12/13/14 19:04	12/16/14 21:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		70 - 130	12/13/14 19:04	12/16/14 21:59	1
4-Bromofluorobenzene (Surr)	121		70 - 130	12/13/14 19:04	12/16/14 21:59	1
Dibromofluoromethane (Surr)	103		70 - 130	12/13/14 19:04	12/16/14 21:59	1
Toluene-d8 (Surr)	103		70 - 130	12/13/14 19:04	12/16/14 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0631	0.00942	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Acenaphthylene	ND		0.0631	0.00848	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Anthracene	ND		0.0631	0.00848	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Benzo[a]anthracene	ND		0.0631	0.0141	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Benzo[a]pyrene	ND		0.0631	0.0113	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Benzo[b]fluoranthene	ND		0.0631	0.0113	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Benzo[g,h,i]perylene	ND		0.0631	0.00848	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Benzo[k]fluoranthene	ND		0.0631	0.0132	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
1-Methylnaphthalene	ND		0.0631	0.0132	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Pyrene	ND		0.0631	0.0113	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Phenanthrene	ND		0.0631	0.00848	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Chrysene	ND		0.0631	0.00848	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Dibenz(a,h)anthracene	ND		0.0631	0.00660	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Fluoranthene	ND		0.0631	0.00848	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Fluorene	ND		0.0631	0.0113	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Indeno[1,2,3-cd]pyrene	ND		0.0631	0.00942	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
Naphthalene	ND		0.0631	0.00848	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1
2-Methylnaphthalene	ND		0.0631	0.0151	mg/Kg	☒	12/17/14 12:47	12/17/14 23:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	61		29 - 120	12/17/14 12:47	12/17/14 23:19	1
Terphenyl-d14 (Surr)	71		13 - 120	12/17/14 12:47	12/17/14 23:19	1
Nitrobenzene-d5 (Surr)	64		27 - 120	12/17/14 12:47	12/17/14 23:19	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10	0.10	%			12/15/14 09:11	1

TestAmerica Nashville

Client Sample Results

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

TestAmerica Job ID: 490-68644-1

Client Sample ID: 636 Dahlia

Date Collected: 12/10/14 11:15

Date Received: 12/12/14 08:45

Lab Sample ID: 490-68644-3

Matrix: Soil

Percent Solids: 86.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00220	0.000738	mg/Kg	☒	12/13/14 19:04	12/16/14 22:31	1
Ethylbenzene	ND		0.00220	0.000738	mg/Kg	☒	12/13/14 19:04	12/16/14 22:31	1
Naphthalene	ND		0.00550	0.00187	mg/Kg	☒	12/13/14 19:04	12/16/14 22:31	1
Toluene	ND		0.00220	0.000815	mg/Kg	☒	12/13/14 19:04	12/16/14 22:31	1
Xylenes, Total	ND		0.00330	0.000738	mg/Kg	☒	12/13/14 19:04	12/16/14 22:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		70 - 130	12/13/14 19:04	12/16/14 22:31	1
4-Bromofluorobenzene (Surr)	122		70 - 130	12/13/14 19:04	12/16/14 22:31	1
Dibromofluoromethane (Surr)	104		70 - 130	12/13/14 19:04	12/16/14 22:31	1
Toluene-d8 (Surr)	104		70 - 130	12/13/14 19:04	12/16/14 22:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0666	0.00994	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Acenaphthylene	ND		0.0666	0.00895	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Anthracene	ND		0.0666	0.00895	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Benzo[a]anthracene	0.212		0.0666	0.0149	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Benzo[a]pyrene	0.0768		0.0666	0.0119	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Benzo[b]fluoranthene	0.150		0.0666	0.0119	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Benzo[g,h,i]perylene	ND		0.0666	0.00895	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Benzo[k]fluoranthene	0.0704		0.0666	0.0139	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
1-Methylnaphthalene	ND		0.0666	0.0139	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Pyrene	0.209		0.0666	0.0119	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Phenanthrene	ND		0.0666	0.00895	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Chrysene	0.242		0.0666	0.00895	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Dibenz(a,h)anthracene	ND		0.0666	0.00696	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Fluoranthene	0.218		0.0666	0.00895	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Fluorene	ND		0.0666	0.0119	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Indeno[1,2,3-cd]pyrene	ND		0.0666	0.00994	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
Naphthalene	ND		0.0666	0.00895	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1
2-Methylnaphthalene	ND		0.0666	0.0159	mg/Kg	☒	12/17/14 12:47	12/17/14 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	46		29 - 120	12/17/14 12:47	12/17/14 23:42	1
Terphenyl-d14 (Surr)	53		13 - 120	12/17/14 12:47	12/17/14 23:42	1
Nitrobenzene-d5 (Surr)	49		27 - 120	12/17/14 12:47	12/17/14 23:42	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	86		0.10	0.10	%			12/15/14 09:11	1

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-68644-1

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

Lab Sample ID: 490-68461-A-1-D MS

Matrix: Solid

Analysis Batch: 214403

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 213635

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0467	0.04059		mg/Kg		87	31 - 143
Ethylbenzene	ND		0.0467	0.04495		mg/Kg		96	23 - 161
Naphthalene	ND		0.0467	0.03484		mg/Kg		75	10 - 176
Toluene	ND		0.0467	0.04287		mg/Kg		92	30 - 155
Xylenes, Total	ND		0.0935	0.08070		mg/Kg		86	25 - 162

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	125		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: 490-68461-A-1-E MSD

Matrix: Solid

Analysis Batch: 214403

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 213635

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	ND		0.0447	0.03731		mg/Kg		83	31 - 143	8	50
Ethylbenzene	ND		0.0447	0.04261		mg/Kg		95	23 - 161	5	50
Naphthalene	ND		0.0447	0.03368		mg/Kg		75	10 - 176	3	50
Toluene	ND		0.0447	0.03960		mg/Kg		89	30 - 155	8	50
Xylenes, Total	ND		0.0894	0.07794		mg/Kg		87	25 - 162	3	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		70 - 130
4-Bromofluorobenzene (Surr)	121		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: MB 490-214403/11

Matrix: Solid

Analysis Batch: 214403

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0335	mg/Kg			12/16/14 18:21	1
Ethylbenzene	ND		0.100	0.0335	mg/Kg			12/16/14 18:21	1
Naphthalene	ND		0.250	0.0850	mg/Kg			12/16/14 18:21	1
Toluene	ND		0.100	0.0370	mg/Kg			12/16/14 18:21	1
Xylenes, Total	ND		0.150	0.0335	mg/Kg			12/16/14 18:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130		12/16/14 18:21	1
4-Bromofluorobenzene (Surr)	119		70 - 130		12/16/14 18:21	1
Dibromofluoromethane (Surr)	101		70 - 130		12/16/14 18:21	1
Toluene-d8 (Surr)	105		70 - 130		12/16/14 18:21	1

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-68644-1

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

Lab Sample ID: MB 490-214403/12

Matrix: Solid

Analysis Batch: 214403

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			12/16/14 18:52	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			12/16/14 18:52	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			12/16/14 18:52	1
Toluene	ND		0.00200	0.000740	mg/Kg			12/16/14 18:52	1
Xylenes, Total	ND		0.00300	0.000670	mg/Kg			12/16/14 18:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130		12/16/14 18:52	1
4-Bromofluorobenzene (Surr)	117		70 - 130		12/16/14 18:52	1
Dibromofluoromethane (Surr)	104		70 - 130		12/16/14 18:52	1
Toluene-d8 (Surr)	105		70 - 130		12/16/14 18:52	1

Lab Sample ID: LCS 490-214403/9

Matrix: Solid

Analysis Batch: 214403

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05216		mg/Kg		104	75 - 127
Ethylbenzene	0.0500	0.05251		mg/Kg		105	80 - 134
Naphthalene	0.0500	0.05043		mg/Kg		101	69 - 150
Toluene	0.0500	0.05087		mg/Kg		102	80 - 132
Xylenes, Total	0.100	0.09705		mg/Kg		97	80 - 137

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	118		70 - 130
4-Bromofluorobenzene (Surr)	121		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130
Toluene-d8 (Surr)	104		70 - 130

Lab Sample ID: LCSD 490-214403/10

Matrix: Solid

Analysis Batch: 214403

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	0.0500	0.05418		mg/Kg		108	75 - 127	4	50
Ethylbenzene	0.0500	0.05609		mg/Kg		112	80 - 134	7	50
Naphthalene	0.0500	0.04983		mg/Kg		100	69 - 150	1	50
Toluene	0.0500	0.05342		mg/Kg		107	80 - 132	5	50
Xylenes, Total	0.100	0.1025		mg/Kg		103	80 - 137	5	50

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	116		70 - 130
4-Bromofluorobenzene (Surr)	119		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	103		70 - 130

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-68644-1

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

Lab Sample ID: MB 490-214767/1-A

Matrix: Solid

Analysis Batch: 214758

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 214767

Analyte	Result	MB MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Anthracene	ND		0.0670	0.00900	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Pyrene	ND		0.0670	0.0120	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Chrysene	ND		0.0670	0.00900	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Fluorene	ND		0.0670	0.0120	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		12/17/14 12:47	12/17/14 16:51	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		12/17/14 12:47	12/17/14 16:51	1

Surrogate	%Recovery	MB MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	75		29 - 120	12/17/14 12:47	12/17/14 16:51	1
Terphenyl-d14 (Surr)	88		13 - 120	12/17/14 12:47	12/17/14 16:51	1
Nitrobenzene-d5 (Surr)	75		27 - 120	12/17/14 12:47	12/17/14 16:51	1

Lab Sample ID: LCS 490-214767/2-A

Matrix: Solid

Analysis Batch: 214758

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 214767

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	1.67	1.435		mg/Kg		86	38 - 120
Anthracene	1.67	1.493		mg/Kg		90	46 - 124
Benzo[a]anthracene	1.67	1.452		mg/Kg		87	45 - 120
Benzo[a]pyrene	1.67	1.438		mg/Kg		86	45 - 120
Benzo[b]fluoranthene	1.67	1.449		mg/Kg		87	42 - 120
Benzo[g,h,i]perylene	1.67	1.443		mg/Kg		87	38 - 120
Benzo[k]fluoranthene	1.67	1.481		mg/Kg		89	42 - 120
1-Methylnaphthalene	1.67	1.383		mg/Kg		83	32 - 120
Pyrene	1.67	1.424		mg/Kg		85	43 - 120
Phenanthrene	1.67	1.467		mg/Kg		88	45 - 120
Chrysene	1.67	1.472		mg/Kg		88	43 - 120
Dibenz(a,h)anthracene	1.67	1.456		mg/Kg		87	32 - 128
Fluoranthene	1.67	1.481		mg/Kg		89	46 - 120
Fluorene	1.67	1.517		mg/Kg		91	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.409		mg/Kg		85	41 - 121
Naphthalene	1.67	1.418		mg/Kg		85	32 - 120
2-Methylnaphthalene	1.67	1.426		mg/Kg		86	28 - 120

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-68644-1

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

Lab Sample ID: LCS 490-214767/2-A

Matrix: Solid

Analysis Batch: 214758

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 214767

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	80		29 - 120
Terphenyl-d14 (Surr)	85		13 - 120
Nitrobenzene-d5 (Surr)	81		27 - 120

Lab Sample ID: 490-68765-C-1-B MS

Matrix: Solid

Analysis Batch: 214758

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 214767

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene	ND		2.23	1.558		mg/Kg	☒	70	25 - 120	
Anthracene	ND		2.23	1.550		mg/Kg	☒	70	28 - 125	
Benzo[a]anthracene	ND		2.23	1.619		mg/Kg	☒	73	23 - 120	
Benzo[a]pyrene	ND		2.23	1.504		mg/Kg	☒	68	15 - 128	
Benzo[b]fluoranthene	ND		2.23	1.589		mg/Kg	☒	71	12 - 133	
Benzo[g,h,i]perylene	ND		2.23	1.503		mg/Kg	☒	67	22 - 120	
Benzo[k]fluoranthene	ND		2.23	1.546		mg/Kg	☒	69	28 - 120	
1-Methylnaphthalene	ND		2.23	1.502		mg/Kg	☒	67	10 - 120	
Pyrene	ND		2.23	1.724		mg/Kg	☒	77	20 - 123	
Phenanthrene	ND		2.23	1.538		mg/Kg	☒	69	21 - 122	
Chrysene	ND		2.23	1.606		mg/Kg	☒	72	20 - 120	
Dibenz[a,h]anthracene	ND		2.23	1.536		mg/Kg	☒	69	12 - 128	
Fluoranthene	ND		2.23	1.581		mg/Kg	☒	71	10 - 143	
Fluorene	ND		2.23	1.630		mg/Kg	☒	73	20 - 120	
Indeno[1,2,3-cd]pyrene	ND		2.23	1.471		mg/Kg	☒	66	22 - 121	
Naphthalene	ND		2.23	1.500		mg/Kg	☒	67	10 - 120	
2-Methylnaphthalene	ND		2.23	1.521		mg/Kg	☒	68	13 - 120	

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	66		29 - 120
Terphenyl-d14 (Surr)	70		13 - 120
Nitrobenzene-d5 (Surr)	66		27 - 120

Lab Sample ID: 490-68765-C-1-C MSD

Matrix: Solid

Analysis Batch: 214758

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 214767

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		2.27	1.869		mg/Kg	☒	82	25 - 120	18	50
Anthracene	ND		2.27	1.847		mg/Kg	☒	81	28 - 125	17	49
Benzo[a]anthracene	ND		2.27	1.907		mg/Kg	☒	84	23 - 120	16	50
Benzo[a]pyrene	ND		2.27	1.823		mg/Kg	☒	80	15 - 128	19	50
Benzo[b]fluoranthene	ND		2.27	1.895		mg/Kg	☒	83	12 - 133	18	50
Benzo[g,h,i]perylene	ND		2.27	1.844		mg/Kg	☒	81	22 - 120	20	50
Benzo[k]fluoranthene	ND		2.27	1.858		mg/Kg	☒	82	28 - 120	18	45
1-Methylnaphthalene	ND		2.27	1.842		mg/Kg	☒	81	10 - 120	20	50
Pyrene	ND		2.27	1.863		mg/Kg	☒	82	20 - 123	8	50
Phenanthrene	ND		2.27	1.843		mg/Kg	☒	81	21 - 122	18	50
Chrysene	ND		2.27	1.895		mg/Kg	☒	83	20 - 120	17	49

TestAmerica Nashville

QC Sample Results

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

TestAmerica Job ID: 490-68644-1

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

Lab Sample ID: 490-68765-C-1-C MSD

Matrix: Solid

Analysis Batch: 214758

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 214767

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	Limit
Dibenz(a,h)anthracene	ND		2.27	1.846		mg/Kg	☒	81	12 - 128	18	50
Fluoranthene	ND		2.27	1.889		mg/Kg	☒	83	10 - 143	18	50
Fluorene	ND		2.27	1.920		mg/Kg	☒	84	20 - 120	16	50
Indeno[1,2,3-cd]pyrene	ND		2.27	1.788		mg/Kg	☒	79	22 - 121	19	50
Naphthalene	ND		2.27	1.850		mg/Kg	☒	81	10 - 120	21	50
2-Methylnaphthalene	ND		2.27	1.855		mg/Kg	☒	82	13 - 120	20	50
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
2-Fluorobiphenyl (Surr)	75		29 - 120								
Terphenyl-d14 (Surr)	78		13 - 120								
Nitrobenzene-d5 (Surr)	76		27 - 120								

Method: Moisture - Percent Moisture

Lab Sample ID: 490-68524-C-1 DU

Matrix: Solid

Analysis Batch: 214074

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Percent Solids	69		65		%		6	20

TestAmerica Nashville

QC Association Summary

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

TestAmerica Job ID: 490-68644-1

GC/MS VOA

Prep Batch: 213635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-68461-A-1-D MS	Matrix Spike	Total/NA	Solid	5030B	
490-68461-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5030B	

Prep Batch: 214013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-68644-1	487 Laurel Bay	Total/NA	Soil	5035	
490-68644-2	612 Dahlia	Total/NA	Soil	5035	
490-68644-3	636 Dahlia	Total/NA	Soil	5035	

Analysis Batch: 214403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-68461-A-1-D MS	Matrix Spike	Total/NA	Solid	8260B	213635
490-68461-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	213635
490-68644-1	487 Laurel Bay	Total/NA	Soil	8260B	214013
490-68644-2	612 Dahlia	Total/NA	Soil	8260B	214013
490-68644-3	636 Dahlia	Total/NA	Soil	8260B	214013
LCS 490-214403/9	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-214403/10	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-214403/11	Method Blank	Total/NA	Solid	8260B	
MB 490-214403/12	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Analysis Batch: 214758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-68644-1	487 Laurel Bay	Total/NA	Soil	8270D	214767
490-68644-2	612 Dahlia	Total/NA	Soil	8270D	214767
490-68644-3	636 Dahlia	Total/NA	Soil	8270D	214767
490-68765-C-1-B MS	Matrix Spike	Total/NA	Solid	8270D	214767
490-68765-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	214767
LCS 490-214767/2-A	Lab Control Sample	Total/NA	Solid	8270D	214767
MB 490-214767/1-A	Method Blank	Total/NA	Solid	8270D	214767

Prep Batch: 214767

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-68644-1	487 Laurel Bay	Total/NA	Soil	3550C	
490-68644-2	612 Dahlia	Total/NA	Soil	3550C	
490-68644-3	636 Dahlia	Total/NA	Soil	3550C	
490-68765-C-1-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-68765-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
LCS 490-214767/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-214767/1-A	Method Blank	Total/NA	Solid	3550C	

General Chemistry

Analysis Batch: 214074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-68524-C-1 DU	Duplicate	Total/NA	Solid	Moisture	
490-68524-C-1 MS	Matrix Spike	Total/NA	Solid	Moisture	
490-68524-C-1 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	

TestAmerica Nashville

QC Association Summary

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

TestAmerica Job ID: 490-68644-1

General Chemistry (Continued)

Analysis Batch: 214074 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-68644-1	487 Laurel Bay	Total/NA	Soil	Moisture	
490-68644-2	612 Dahlia	Total/NA	Soil	Moisture	
490-68644-3	636 Dahlia	Total/NA	Soil	Moisture	

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Lab Chronicle

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

TestAmerica Job ID: 490-68644-1

Client Sample ID: 487 Laurel Bay

Date Collected: 12/08/14 14:00

Date Received: 12/12/14 08:45

Lab Sample ID: 490-68644-1

Matrix: Soil

Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.038 g	5.0 mL	214013	12/13/14 19:04	JLP	TAL NSH
Total/NA	Analysis	8260B		1	4.038 g	5.0 mL	214403	12/16/14 21:28	SLM	TAL NSH
Total/NA	Prep	3550C			31.77 g	1.00 mL	214767	12/17/14 12:47	LDC	TAL NSH
Total/NA	Analysis	8270D		1	31.77 g	1.00 mL	214758	12/17/14 22:56	SNR	TAL NSH
Total/NA	Analysis	Moisture		1			214074	12/15/14 09:11	RRS	TAL NSH

Client Sample ID: 612 Dahlia

Date Collected: 12/09/14 13:15

Date Received: 12/12/14 08:45

Lab Sample ID: 490-68644-2

Matrix: Soil

Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.383 g	5.0 mL	214013	12/13/14 19:04	JLP	TAL NSH
Total/NA	Analysis	8260B		1	4.383 g	5.0 mL	214403	12/16/14 21:59	SLM	TAL NSH
Total/NA	Prep	3550C			33.76 g	1.00 mL	214767	12/17/14 12:47	LDC	TAL NSH
Total/NA	Analysis	8270D		1	33.76 g	1.00 mL	214758	12/17/14 23:19	SNR	TAL NSH
Total/NA	Analysis	Moisture		1			214074	12/15/14 09:11	RRS	TAL NSH

Client Sample ID: 636 Dahlia

Date Collected: 12/10/14 11:15

Date Received: 12/12/14 08:45

Lab Sample ID: 490-68644-3

Matrix: Soil

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.255 g	5.0 mL	214013	12/13/14 19:04	JLP	TAL NSH
Total/NA	Analysis	8260B		1	5.255 g	5.0 mL	214403	12/16/14 22:31	SLM	TAL NSH
Total/NA	Prep	3550C			34.91 g	1.00 mL	214767	12/17/14 12:47	LDC	TAL NSH
Total/NA	Analysis	8270D		1	34.91 g	1.00 mL	214758	12/17/14 23:42	SNR	TAL NSH
Total/NA	Analysis	Moisture		1			214074	12/15/14 09:11	RRS	TAL NSH

Laboratory References:

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

Method Summary

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

TestAmerica Job ID: 490-68644-1

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: 490-68644-1

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 Program	4	84009 (001)	02-28-15

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
8270D	3550C	Soil	1-Methylnaphthalene
Moisture		Soil	Percent Solids

COOLER RECEIPT FORM



490-68644 Chain of Custody

Cooler Received/Opened On 12/12/2014 @ 0845

1. Tracking # 9697 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 12080142

2. Temperature of rep. sample or temp blank when opened: 2.3 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: one front & Back

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) DA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # 12

I certify that I unloaded the cooler and answered questions 7-14 (initial) MSH

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO..NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) MSH

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) MSH

I certify that I attached a label with the unique LIMS number to each container (initial) MSH

21. Were there Non-Conformance Issues at login? YES..NO Was a NCM generated? YES..NO..# 12

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Toll Free: 800-766-0980
Fax: 615-726-3404

Loc: 490
68644

12/22/2014

Client Name/Account #: SBG - EEG # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

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

Telephone Number: 843 412 2287

Sample Name: (Print) West Shaw

Sampler Signature: [Signature]

Fax No: (843) 879-0401

Site State: SC

PO#: 1404

TA Quote #:

Project ID: Laurel Bay Housing Project

Project #:

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

Compliance Monitoring?
Enforcement Action?

Yes ☐ No ☐
Yes ☐ No ☐

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO ₃ (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H ₂ SO ₄ Plastic (Yellow Label)	H ₂ SO ₄ Glass (Yellow Label)	None (Black Label)	Other (Specify)	Matrix				BTEX + Naph - 8260	PAH - 8270D	Analyze For:	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	
															Groundwater	Wastewater	Drinking Water	Sludge							Soil
1194 Bebechitz	11/18/14	11:45	5	X												X									
1420 Alabamas	12/11/14															X									
487 Laurel Bay	12/8/14	1400	5	X												X									
6012 Dahlia	12/9/14	1315	5	X												X									
636 Dahlia	12/10/14	1115	5	X												X									

Special Instructions:

Method of Shipment:

FEDEX

Laboratory Comments:

Temperature Upon Receipt: 23
VOCs Free of Headspace?

Y N

Relinquished By: <u>[Signature]</u>	Date: <u>12/11/14</u>	Time: <u>0900</u>	Received By: <u>[Signature]</u>	Date: <u>12/17/14</u>	Time: <u>0845</u>
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Login Sample Receipt Checklist

Client: Small Business Group Inc.

Job Number: 490-68644-1

Login Number: 68644

List Source: TestAmerica Nashville

List Number: 1

Creator: McBride, Mike

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	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	2.3
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT A



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Doc No.		2. Page 1 of 1
3. Generator's Mailing Address: MCAS BEAUFORT LAUREL BAY HOUSING BEAUFORT, SC 29904		Generator's Site Address (If different than mailing):		A. Manifest Number WMNA	01519138
4. Generator's Phone 843-879-0411				B. State Generator's ID	
5. Transporter 1 Company Name Parline Containers P.O. Box 975 SC 29904		6. US EPA ID Number		C. State Transporter's ID	
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone	
9. Designated Facility Name and Site Address HICKORY HILL LANDFILL 2621 LOW COUNTRY DRIVE RIDGELAND, SC 29936		10. US EPA ID Number		E. State Transporter's ID	
				F. Transporter's Phone	
				G. State Facility ID	
				H. State Facility Phone 843-987-4643	
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity
			No.	Type	14. Unit Wt./Vol.
	a. HEATING OIL TANK FILLED WITH SAND WM Profile # 102655SC		1	30g	789
	b. WM Profile #				
	c. WM Profile #				
TRANSPORTER	d. WM Profile #				
	J. Additional Descriptions for Materials Listed Above		K. Disposal Location		
			Cell	Level	
			Grid		
	15. Special Handling Instructions and Additional Information 1) 1194 Bobwhite 2) 1420 Albatross 3) 487 Laurel Bay 4) 612 Dahlia 5) 636 Dahlia		Purchase Order #		
FACILITY	16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by 40CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.				
	Printed Name		Signature "On behalf of"		Month Day Year
	17. Transporter 1 Acknowledgement of Receipt of Materials		Printed Name		Signature
	18. Transporter 2 Acknowledgement of Receipt of Materials		Printed Name		Signature
	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.		20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.		Month Day Year
Printed Name		Signature		Month Day Year	

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY
Pink- FACILITY USE ONLY

Blue- GENERATOR #2 COPY
Gold- TRANSPORTER #1 COPY

Yellow- GENERATOR #1 COPY

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 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 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	487 Laurel 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

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	