SUMMARY REPORT
15 BLUEBELL LANE (FORMERLY 700 BLUEBELL LANE)
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

# SUMMARY REPORT
# 15 BLUEBELL LANE (FORMERLY 700 BLUEBELL LANE)
# 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

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

# Table of Contents



## Table



## Appendices

## 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 15 Bluebell Lane (Formerly 700 Bluebell Lane). 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 15 Bluebell Lane (Formerly 700 Bluebell Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 700 Bluebell Lane* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B.

### 2.1 UST Removal and Soil Sampling

On December 18, 2012, a single 280 gallon heating oil UST was removed from the concrete porch area at 15 Bluebell Lane (Formerly 700 Bluebell Lane). 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 6'3" 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 15 Bluebell Lane (Formerly 700 Bluebell Lane) 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 15 Bluebell Lane (Formerly 700 Bluebell Lane). This NFA determination was obtained in a letter dated May 15, 2014. SCDHEC's NFA letter is provided in Appendix C.

# 4.0 REFERENCES

Marine Corps Air Station Beaufort, 2013. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 700 Bluebell Lane, Laurel Bay Military Housing Area*, April 2013.

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**
**15 Bluebell Lane (Formerly 700 Bluebell Lane)**
**Laurel Bay Military Housing Area**
**Marine Corps Air Station Beaufort**
**Beaufort, South Carolina**

| Constituent | SCDHEC RBSLs [1] | Results Sample Collected 12/18/12 |
|---|---|---|
| **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 | 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 2.0 (SCDHEC, April 2013).

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

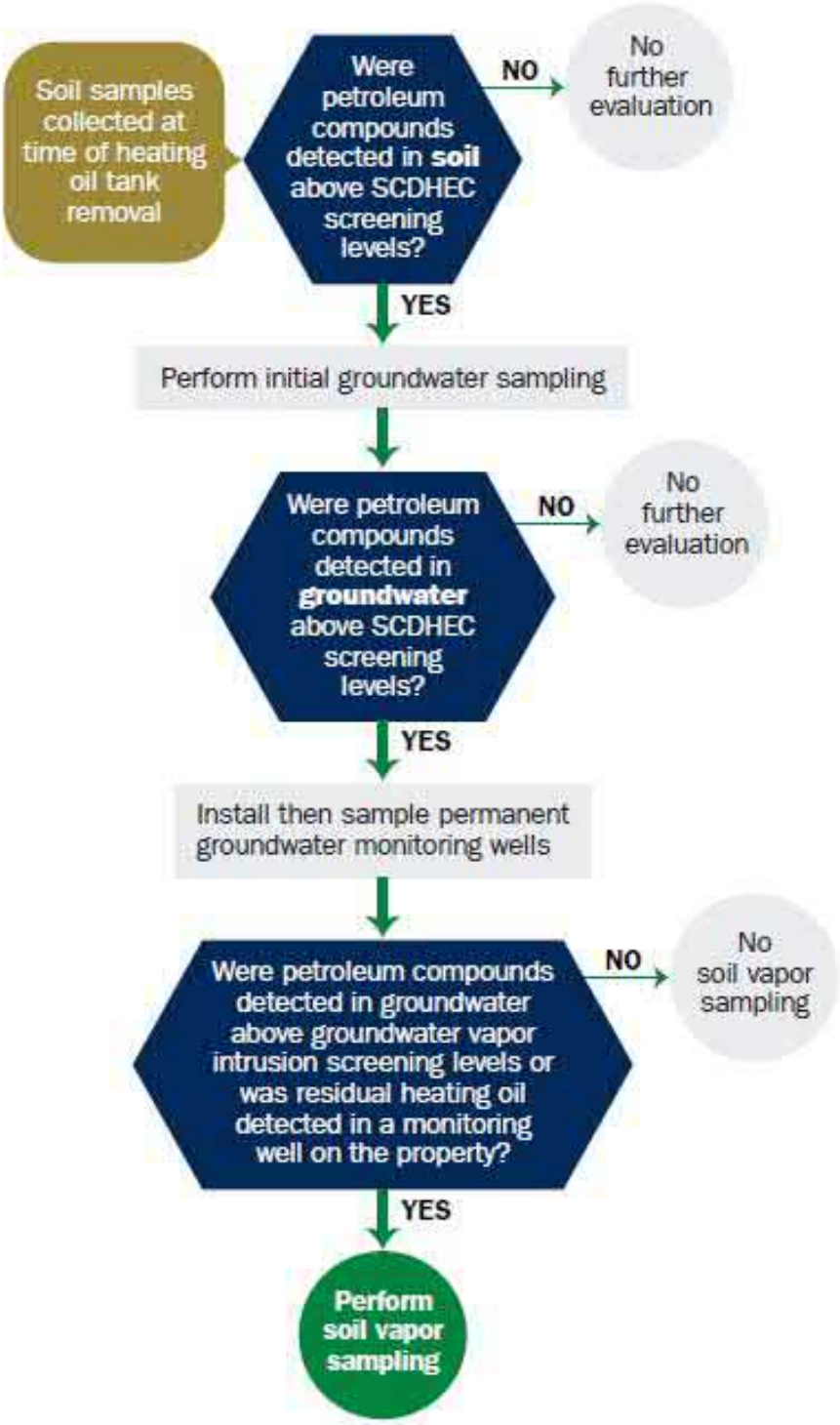
ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The laboratory report is provided in Appendix B.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

**Appendix A**
**Multi-Media Selection Process for LBMH**

CDM - AECOM
Multimedia Joint Venture




## Appendix A - Multi-Media Selection Process for LBMH

**Appendix B**
**UST Assessment Report**

CDM - AECOM
Multimedia Joint Venture

4125/13

Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

# Underground Storage Tank (UST) Assessment Report

| Date Received<br><br>State Use Only |
|---|

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

## I. OWNERSHIP OF UST (S)

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

700 Bluebell Lane, Laurel Bay Military Housing Area
Street Address or State Road (as applicable)

| 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)

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)..... | 700Bluebell | |
| B. | Capacity..(ex. 1k, 2k)..... | Heating oil | |
| C. | Age..... | 280 gal | |
| D. | Construction Material..(ex. Steel, FRP)..... | Late 1950s | |
| E. | Month/Year of Last Use..... | Steel | |
| F. | Depth (ft.) To Base of Tank..... | Mid 80s | |
| G. | Spill Prevention Equipment Y/N..... | 6'3" | |
| H. | Overfill Prevention Equipment Y/N..... | No | |
| I. | Method of Closure Removed/Filled..... | No | |
| J. | Date Tanks Removed/Filled..... | Removed | |
| K. | Visible Corrosion or Pitting Y/N..... | 12/18/2012 | |
| L. | Visible Holes Y/N..... | Yes | |
| | | Yes | |

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

UST 700Bluebell 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 700Bluebell 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 present throughout the tank.

## VII. PIPING INFORMATION

| | | | |
|---|---|---|---|
| A. | Construction Material..(ex. Steel, FRP)..... | 700Bluebell | |
| B. | Distance from UST to Dispenser..... | Steel & Copper | |
| C. | Number of Dispensers..... | N/A | |
| D. | Type of System Pressure or Suction..... | N/A | |
| E. | Was Piping Removed from the Ground? Y/N | Suction | |
| F. | Visible Corrosion or Pitting Y/N..... | No | |
| G. | Visible Holes Y/N..... | Yes | |
| H. | Age..... | No | |
| | | Late 1950s | |

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

Corrosion and pitting were found on the surface of the steel vent pipe. But the 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 |
|---|---|---|---|
| A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?<br><br>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?<br><br>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?<br><br>If yes, how far below land surface (indicate location and depth)? | | X | |
| D. Did contaminated soils remain stockpiled on site after closure?<br><br>If yes, indicate the stockpile location on the site map.<br><br>Name of DHEC representative authorizing soil removal: | | X | |
| E. Was a petroleum sheen or free product detected on any excavation or boring waters?<br><br>If yes, indicate location and thickness. | | 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 # |
|---|---|---|---|---|---|---|---|
| 700 Bluebell | Excav at fill end | Soil | Sandy | 6'3" | 12/18/12 1405 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.

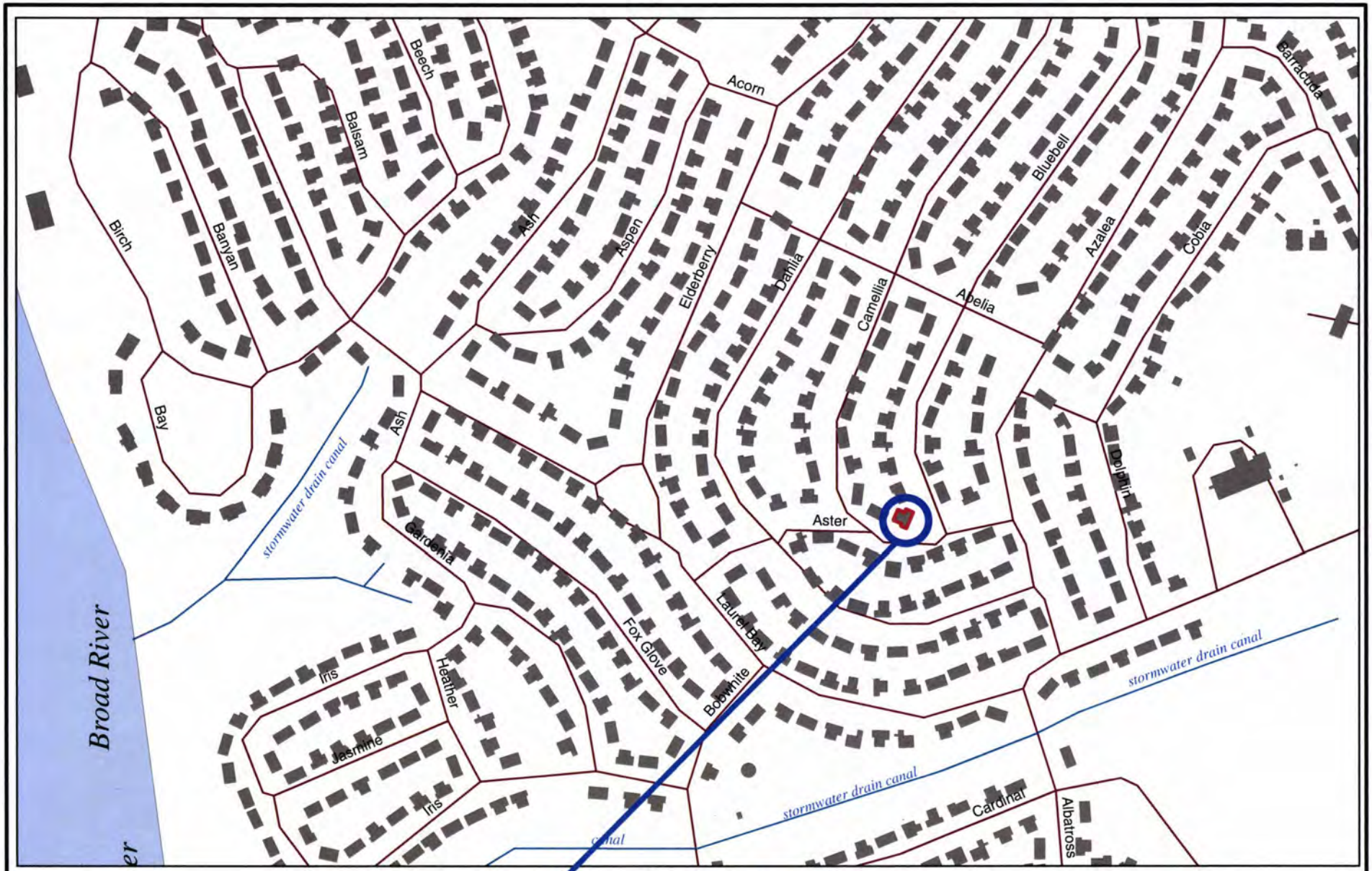
## XII. RECEPTORS

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

## 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)

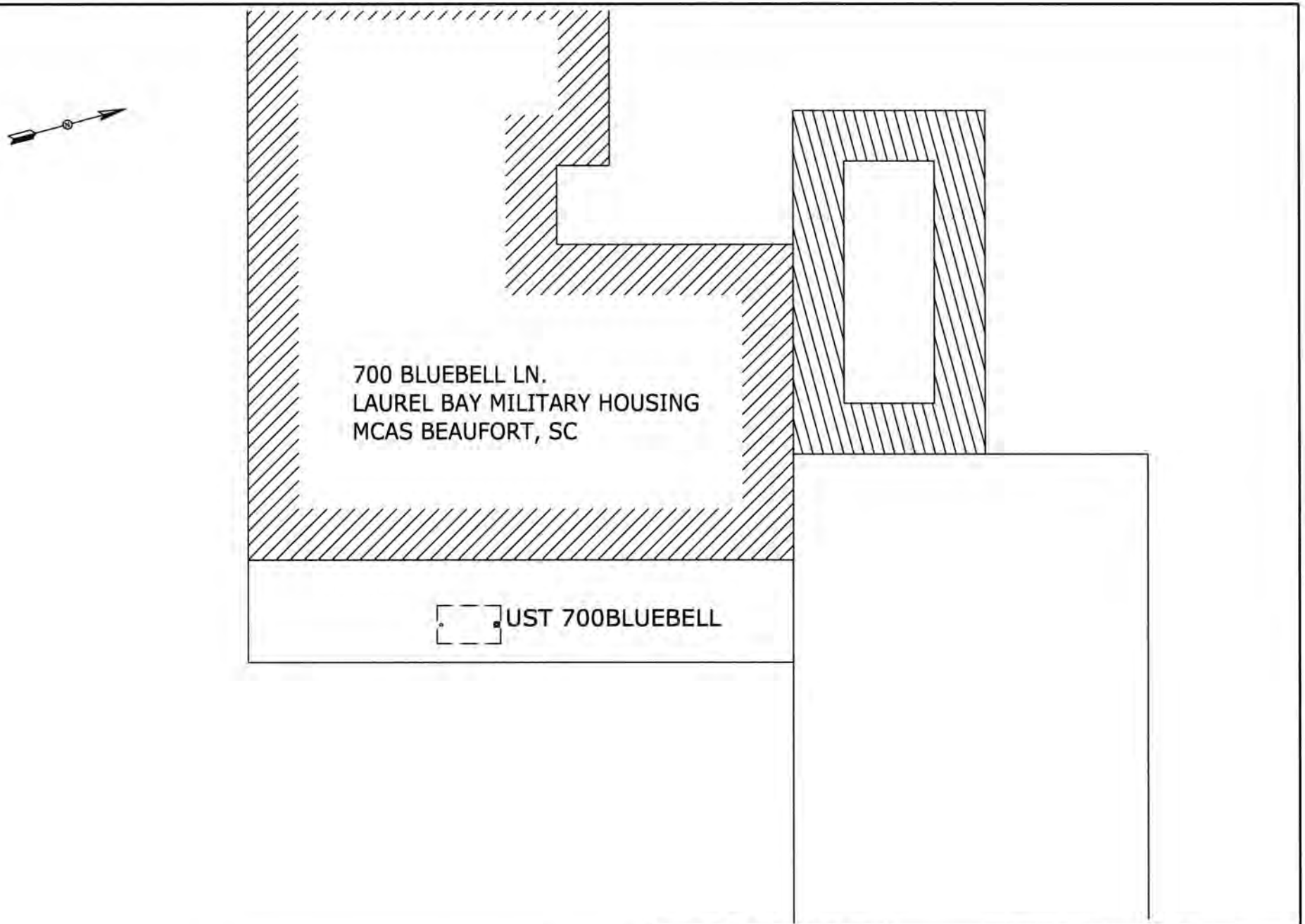



**SBG-EEG, Inc.**
7301 Rivers Ave., Suite 245
N. Charleston SC 29406-9643
Ph. (843) 573-7140

Drawn By: L. DiAsio

Dwg Date: Jan 2013

FIGURE 1: LOCATION MAP
700 BLUEBELL LANE
LAUREL BAY, BEAUFORT SC

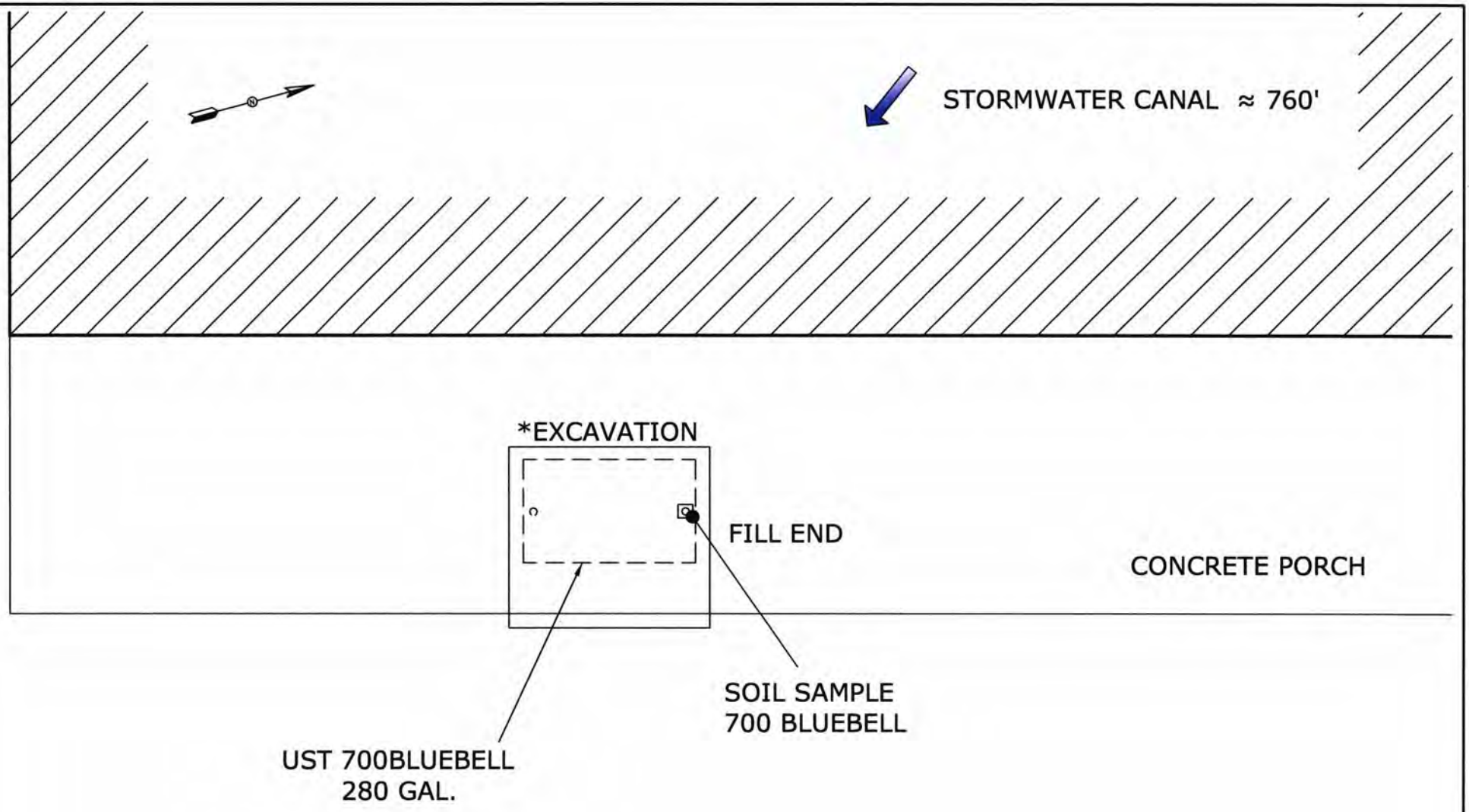



TANK DEPTH BELOW GRADE
700BLUEBELL = 39"

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

FIGURE 2 SITE MAP
700 BLUEBELL LN., LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE JAN 2013



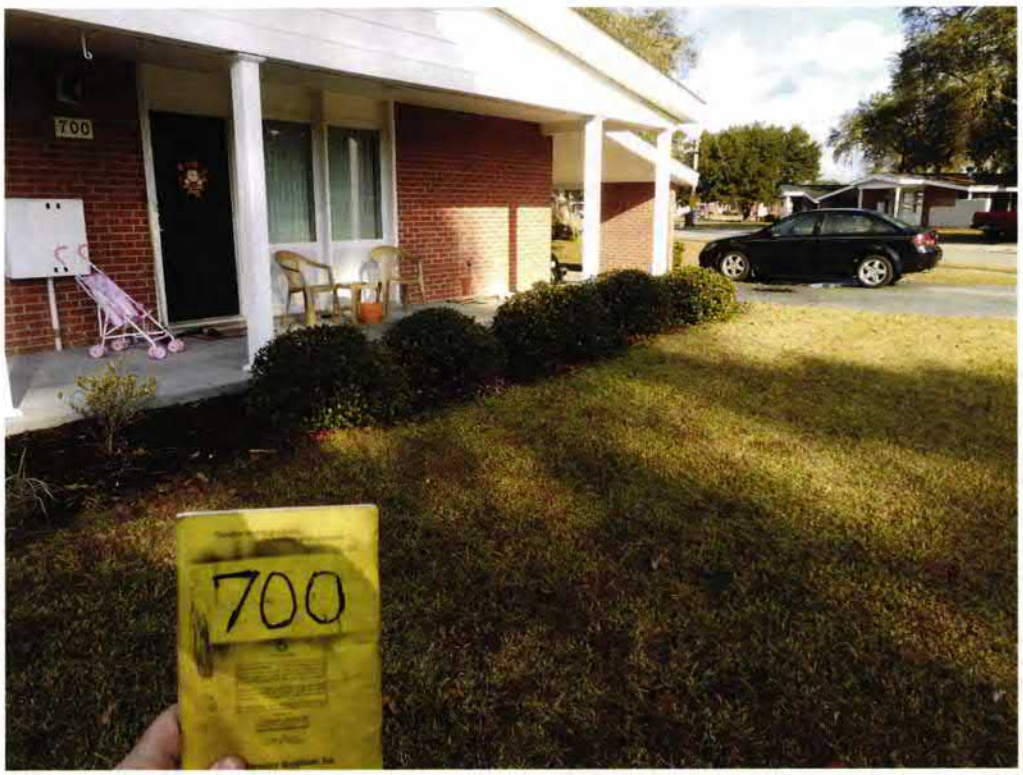

GRAPHIC SCALE
0 5'

*A PORTION OF THE PORCH WAS REMOVED TO FACILITATE EXTRACTING THE TANK.

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

FIGURE 3 UST SAMPLE LOCATIONS
700 BLUEBELL LN., LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE JAN 2013



Picture 1: Location of UST 700Bluebell.

Picture 2: UST 700Bluebell 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 | 700Bluebell | | | | | |
|---|---|---|---|---|---|---|
| Benzene | ND | | | | | |
| Toluene | ND | | | | | |
| Ethylbenzene | ND | | | | | |
| Xylenes | ND | | | | | |
| Naphthalene | ND | | | | | |
| Benzo (a) anthracene | ND | | | | | |
| Benzo (b) fluoranthene | ND | | | | | |
| Benzo (k) fluoranthene | ND | | | | | |
| Chrysene | ND | | | | | |
| 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: 490-15279-1
Client Project/Site: Laurel Bay Housing Project

For:
Environmental Enterprise Group
10179 Highway 78
Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

*Authorized for release by:*
*12/28/2012 6:07:15 PM*

Ken Hayes
Project Manager I
ken.hayes@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.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.*

# Table of Contents

# Sample Summary

Client: Environmental Enterprise Group
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-15279-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 490-15279-1 | 661 Camellia | Solid | 12/17/12 14:00 | 12/20/12 08:30 |
| 490-15279-2 | 700 Bluebell | Solid | 12/18/12 14:05 | 12/20/12 08:30 |
| 490-15279-3 | 660 Camellia | Solid | 12/19/12 13:15 | 12/20/12 08:30 |
| 490-15279-4 | 455 Elderberry | Solid | 12/17/12 15:15 | 12/20/12 08:30 |
| 490-15279-5 | 586 Aster | Solid | 12/18/12 15:00 | 12/20/12 08:30 |
| 490-15279-6 | 666 Camellia | Solid | 12/19/12 14:15 | 12/20/12 08:30 |

# Case Narrative

Client: Environmental Enterprise Group
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-15279-1

## Job ID: 490-15279-1

### Laboratory: TestAmerica Nashville

**Narrative**

**Job Narrative**
**490-15279-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 12/20/2012 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

**GC/MS VOA**
Method(s) 8260B: The method blank for batch 46034 contained Naphthalene 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.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 46034 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: (490-15331-2 MS), (490-15331-2 MSD), Waste-1 (490-15331-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 46534.

Method(s) 8260B: The method blank for batch 46534 contained Xylenes 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**
No analytical or quality issues were noted.

**Organic Prep**
No analytical or quality issues were noted.

**VOA Prep**
No analytical or quality issues were noted.

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| B | Compound was found in the blank and sample. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| E | Result exceeded calibration range. |
| X | Surrogate is outside control limits |
| F | MS or MSD exceeds the control limits |
| 4 | MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable. |

## 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 |
| CNF | Contains no Free Liquid |
| DER | Duplicate error ratio (normalized absolute difference) |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision level concentration |
| EDL | Estimated Detection Limit |
| EPA | United States Environmental Protection Agency |
| MDA | Minimum detectable activity |
| MDC | Minimum detectable concentration |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| 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 ID: 661 Camellia**
**Date Collected: 12/17/12 14:00**
**Date Received: 12/20/12 08:30**

**Lab Sample ID: 490-15279-1**
**Matrix: Solid**
**Percent Solids: 97.0**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00244 | 0.000819 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 00:33 | 1 |
| Ethylbenzene | ND | | 0.00244 | 0.000819 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 00:33 | 1 |
| Naphthalene | ND | | 0.00611 | 0.00208 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 00:33 | 1 |
| Toluene | ND | | 0.00244 | 0.000904 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 00:33 | 1 |
| Xylenes, Total | ND | | 0.00611 | 0.000819 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 00:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *109* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 00:33* | *1* |
| *4-Bromofluorobenzene (Surr)* | *104* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 00:33* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 00:33* | *1* |
| *Toluene-d8 (Surr)* | *112* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 00:33* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0677 | 0.0101 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Acenaphthylene | ND | | 0.0677 | 0.00909 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Anthracene | ND | | 0.0677 | 0.00909 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Benzo[a]anthracene | ND | | 0.0677 | 0.0152 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Benzo[a]pyrene | ND | | 0.0677 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0677 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0677 | 0.00909 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0677 | 0.0141 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| 1-Methylnaphthalene | ND | | 0.0677 | 0.0141 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Pyrene | ND | | 0.0677 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Phenanthrene | ND | | 0.0677 | 0.00909 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Chrysene | ND | | 0.0677 | 0.00909 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0677 | 0.00707 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Fluoranthene | ND | | 0.0677 | 0.00909 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Fluorene | ND | | 0.0677 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0677 | 0.0101 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| Naphthalene | ND | | 0.0677 | 0.00909 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |
| 2-Methylnaphthalene | ND | | 0.0677 | 0.0162 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 17:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *53* | | *29 - 120* | *12/26/12 13:37* | *12/26/12 17:16* | *1* |
| *Terphenyl-d14 (Surr)* | *79* | | *13 - 120* | *12/26/12 13:37* | *12/26/12 17:16* | *1* |
| *Nitrobenzene-d5 (Surr)* | *48* | | *27 - 120* | *12/26/12 13:37* | *12/26/12 17:16* | *1* |

## General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Percent Solids | 97 | | 0.10 | 0.10 | % | | | 12/21/12 08:38 | 1 |

## Client Sample ID: 700 Bluebell

**Date Collected: 12/18/12 14:05**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-2

**Matrix: Solid**
**Percent Solids: 96.4**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00235 | 0.000788 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:03 | 1 |
| Ethylbenzene | ND | | 0.00235 | 0.000788 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:03 | 1 |
| Naphthalene | ND | | 0.00588 | 0.00200 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:03 | 1 |
| Toluene | ND | | 0.00235 | 0.000871 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:03 | 1 |
| Xylenes, Total | ND | | 0.00588 | 0.000788 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:03 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *106* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 01:03* | *1* |
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 01:03* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 01:03* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 01:03* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0676 | 0.0101 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Acenaphthylene | ND | | 0.0676 | 0.00908 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Anthracene | ND | | 0.0676 | 0.00908 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Benzo[a]anthracene | ND | | 0.0676 | 0.0151 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Benzo[a]pyrene | ND | | 0.0676 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0676 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0676 | 0.00908 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0676 | 0.0141 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| 1-Methylnaphthalene | ND | | 0.0676 | 0.0141 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Pyrene | ND | | 0.0676 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Phenanthrene | ND | | 0.0676 | 0.00908 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Chrysene | ND | | 0.0676 | 0.00908 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0676 | 0.00707 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Fluoranthene | ND | | 0.0676 | 0.00908 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Fluorene | ND | | 0.0676 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0676 | 0.0101 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| Naphthalene | ND | | 0.0676 | 0.00908 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |
| 2-Methylnaphthalene | ND | | 0.0676 | 0.0161 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *61* | | *29 - 120* | *12/26/12 13:37* | *12/26/12 19:08* | *1* |
| *Terphenyl-d14 (Surr)* | *82* | | *13 - 120* | *12/26/12 13:37* | *12/26/12 19:08* | *1* |
| *Nitrobenzene-d5 (Surr)* | *55* | | *27 - 120* | *12/26/12 13:37* | *12/26/12 19:08* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Solids** | **96** | | 0.10 | 0.10 | % | | | 12/21/12 08:38 | 1 |

**Client Sample ID: 660 Camellia**
**Date Collected: 12/19/12 13:15**
**Date Received: 12/20/12 08:30**

**Lab Sample ID: 490-15279-3**
**Matrix: Solid**
**Percent Solids: 95.3**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00263 | 0.000880 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:34 | 1 |
| Ethylbenzene | ND | | 0.00263 | 0.000880 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:34 | 1 |
| Naphthalene | ND | | 0.00657 | 0.00223 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:34 | 1 |
| Toluene | ND | | 0.00263 | 0.000972 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:34 | 1 |
| Xylenes, Total | ND | | 0.00657 | 0.000880 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 01:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *108* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 01:34* | *1* |
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 01:34* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 01:34* | *1* |
| *Toluene-d8 (Surr)* | *105* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 01:34* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0698 | 0.0104 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Acenaphthylene | ND | | 0.0698 | 0.00937 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Anthracene | ND | | 0.0698 | 0.00937 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Benzo[a]anthracene | ND | | 0.0698 | 0.0156 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Benzo[a]pyrene | ND | | 0.0698 | 0.0125 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0698 | 0.0125 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0698 | 0.00937 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0698 | 0.0146 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| 1-Methylnaphthalene | ND | | 0.0698 | 0.0146 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Pyrene | ND | | 0.0698 | 0.0125 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Phenanthrene | ND | | 0.0698 | 0.00937 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Chrysene | ND | | 0.0698 | 0.00937 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0698 | 0.00729 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Fluoranthene | ND | | 0.0698 | 0.00937 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Fluorene | ND | | 0.0698 | 0.0125 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0698 | 0.0104 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| Naphthalene | ND | | 0.0698 | 0.00937 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |
| 2-Methylnaphthalene | ND | | 0.0698 | 0.0167 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:29 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *61* | | *29 - 120* | *12/26/12 13:37* | *12/26/12 19:29* | *1* |
| *Terphenyl-d14 (Surr)* | *83* | | *13 - 120* | *12/26/12 13:37* | *12/26/12 19:29* | *1* |
| *Nitrobenzene-d5 (Surr)* | *54* | | *27 - 120* | *12/26/12 13:37* | *12/26/12 19:29* | *1* |

## General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Percent Solids | 95 | | 0.10 | 0.10 | % | | | 12/21/12 08:38 | 1 |

## Client Sample ID: 455 Elderberry

**Date Collected: 12/17/12 15:15**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-4

**Matrix: Solid**
**Percent Solids: 91.5**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00237 | 0.000795 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:04 | 1 |
| Ethylbenzene | ND | | 0.00237 | 0.000795 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:04 | 1 |
| Naphthalene | ND | | 0.00593 | 0.00202 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:04 | 1 |
| Toluene | ND | | 0.00237 | 0.000878 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:04 | 1 |
| Xylenes, Total | ND | | 0.00593 | 0.000795 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:04 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *108* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 02:04* | *1* |
| *4-Bromofluorobenzene (Surr)* | *112* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 02:04* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 02:04* | *1* |
| *Toluene-d8 (Surr)* | *109* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 02:04* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0715 | 0.0107 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Acenaphthylene | ND | | 0.0715 | 0.00960 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Anthracene | ND | | 0.0715 | 0.00960 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Benzo[a]anthracene | ND | | 0.0715 | 0.0160 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Benzo[a]pyrene | ND | | 0.0715 | 0.0128 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0715 | 0.0128 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0715 | 0.00960 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0715 | 0.0149 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| 1-Methylnaphthalene | ND | | 0.0715 | 0.0149 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Pyrene | ND | | 0.0715 | 0.0128 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Phenanthrene | ND | | 0.0715 | 0.00960 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Chrysene | ND | | 0.0715 | 0.00960 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0715 | 0.00747 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Fluoranthene | ND | | 0.0715 | 0.00960 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Fluorene | ND | | 0.0715 | 0.0128 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0715 | 0.0107 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| Naphthalene | ND | | 0.0715 | 0.00960 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |
| 2-Methylnaphthalene | ND | | 0.0715 | 0.0171 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 19:50 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *58* | | *29 - 120* | *12/26/12 13:37* | *12/26/12 19:50* | *1* |
| *Terphenyl-d14 (Surr)* | *80* | | *13 - 120* | *12/26/12 13:37* | *12/26/12 19:50* | *1* |
| *Nitrobenzene-d5 (Surr)* | *53* | | *27 - 120* | *12/26/12 13:37* | *12/26/12 19:50* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Percent Solids | 92 | | 0.10 | 0.10 | % | | | 12/21/12 08:38 | 1 |

**Client Sample ID: 586 Aster**
**Date Collected: 12/18/12 15:00**
**Date Received: 12/20/12 08:30**

**Lab Sample ID: 490-15279-5**
**Matrix: Solid**
**Percent Solids: 93.7**

## 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 | ☼ | 12/21/12 08:22 | 12/23/12 02:34 | 1 |
| Ethylbenzene | ND | | 0.00220 | 0.000738 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:34 | 1 |
| Naphthalene | ND | | 0.00550 | 0.00187 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:34 | 1 |
| Toluene | ND | | 0.00220 | 0.000815 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:34 | 1 |
| Xylenes, Total | ND | | 0.00550 | 0.000738 | mg/Kg | ☼ | 12/21/12 08:22 | 12/23/12 02:34 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *107* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 02:34* | *1* |
| *4-Bromofluorobenzene (Surr)* | *106* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 02:34* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 02:34* | *1* |
| *Toluene-d8 (Surr)* | *117* | | *70 - 130* | *12/21/12 08:22* | *12/23/12 02:34* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0711 | 0.0106 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| Acenaphthylene | ND | | 0.0711 | 0.00955 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Anthracene** | **0.248** | | 0.0711 | 0.00955 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Benzo[a]anthracene** | **1.88** | | 0.0711 | 0.0159 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Benzo[a]pyrene** | **0.777** | | 0.0711 | 0.0127 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Benzo[b]fluoranthene** | **1.32** | | 0.0711 | 0.0127 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Benzo[g,h,i]perylene** | **0.277** | | 0.0711 | 0.00955 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Benzo[k]fluoranthene** | **0.715** | | 0.0711 | 0.0149 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| 1-Methylnaphthalene | ND | | 0.0711 | 0.0149 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Pyrene** | **2.80** | | 0.0711 | 0.0127 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Phenanthrene** | **1.03** | | 0.0711 | 0.00955 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Chrysene** | **1.83** | | 0.0711 | 0.00955 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Dibenz(a,h)anthracene** | **0.102** | | 0.0711 | 0.00743 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Fluoranthene** | **3.33** | | 0.0711 | 0.00955 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| Fluorene | ND | | 0.0711 | 0.0127 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| **Indeno[1,2,3-cd]pyrene** | **0.280** | | 0.0711 | 0.0106 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| Naphthalene | ND | | 0.0711 | 0.00955 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |
| 2-Methylnaphthalene | ND | | 0.0711 | 0.0170 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:11 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *61* | | *29 - 120* | *12/26/12 13:37* | *12/26/12 20:11* | *1* |
| *Terphenyl-d14 (Surr)* | *85* | | *13 - 120* | *12/26/12 13:37* | *12/26/12 20:11* | *1* |
| *Nitrobenzene-d5 (Surr)* | *56* | | *27 - 120* | *12/26/12 13:37* | *12/26/12 20:11* | *1* |

## General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Percent Solids** | **94** | | 0.10 | 0.10 | % | | | 12/21/12 08:38 | 1 |

## Client Sample ID: 666 Camellia

**Date Collected: 12/19/12 14:15**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-6

**Matrix: Solid**
**Percent Solids: 96.8**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00216 | 0.000724 | mg/Kg | ☼ | 12/21/12 08:22 | 12/26/12 15:51 | 1 |
| Ethylbenzene | ND | | 0.00216 | 0.000724 | mg/Kg | ☼ | 12/21/12 08:22 | 12/26/12 15:51 | 1 |
| Naphthalene | ND | | 0.00541 | 0.00184 | mg/Kg | ☼ | 12/21/12 08:22 | 12/26/12 15:51 | 1 |
| Toluene | ND | | 0.00216 | 0.000800 | mg/Kg | ☼ | 12/21/12 08:22 | 12/26/12 15:51 | 1 |
| Xylenes, Total | 0.00157 | J B | 0.00541 | 0.000724 | mg/Kg | ☼ | 12/21/12 08:22 | 12/26/12 15:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *70 - 130* | *12/21/12 08:22* | *12/26/12 15:51* | *1* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* | *12/21/12 08:22* | *12/26/12 15:51* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *70 - 130* | *12/21/12 08:22* | *12/26/12 15:51* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *70 - 130* | *12/21/12 08:22* | *12/26/12 15:51* | *1* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0675 | 0.0101 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Acenaphthylene | ND | | 0.0675 | 0.00906 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Anthracene | ND | | 0.0675 | 0.00906 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Benzo[a]anthracene | ND | | 0.0675 | 0.0151 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Benzo[a]pyrene | ND | | 0.0675 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0675 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0675 | 0.00906 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0675 | 0.0141 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| 1-Methylnaphthalene | ND | | 0.0675 | 0.0141 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Pyrene | ND | | 0.0675 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Phenanthrene | ND | | 0.0675 | 0.00906 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Chrysene | ND | | 0.0675 | 0.00906 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0675 | 0.00705 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Fluoranthene | ND | | 0.0675 | 0.00906 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Fluorene | ND | | 0.0675 | 0.0121 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0675 | 0.0101 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| Naphthalene | ND | | 0.0675 | 0.00906 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |
| 2-Methylnaphthalene | ND | | 0.0675 | 0.0161 | mg/Kg | ☼ | 12/26/12 13:37 | 12/26/12 20:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *59* | | *29 - 120* | *12/26/12 13:37* | *12/26/12 20:32* | *1* |
| *Terphenyl-d14 (Surr)* | *84* | | *13 - 120* | *12/26/12 13:37* | *12/26/12 20:32* | *1* |
| *Nitrobenzene-d5 (Surr)* | *51* | | *27 - 120* | *12/26/12 13:37* | *12/26/12 20:32* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Percent Solids | 97 | | 0.10 | 0.10 | % | | | 12/21/12 08:38 | 1 |

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

**Lab Sample ID: 490-15331-A-2-D MS**
**Matrix: Solid**
**Analysis Batch: 46034**

**Client Sample ID: Matrix Spike**
**Prep Type: Total/NA**
**Prep Batch: 45768**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.0494 | 0.02739 | | mg/Kg | ☼ | 55 | 31 - 143 |
| Ethylbenzene | 0.0121 | | 0.0494 | 0.02303 | F | mg/Kg | ☼ | 22 | 23 - 161 |
| Naphthalene | 0.214 | E B | 0.0494 | 0.2093 | E 4 | mg/Kg | ☼ | -10 | 10 - 176 |
| Toluene | ND | | 0.0494 | 0.02214 | | mg/Kg | ☼ | 45 | 30 - 155 |
| Xylenes, Total | 0.0269 | | 0.148 | 0.06805 | | mg/Kg | ☼ | 28 | 25 - 162 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *103* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *80* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *102* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *219* | *X* | *70 - 130* |

**Lab Sample ID: 490-15331-A-2-E MSD**
**Matrix: Solid**
**Analysis Batch: 46034**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total/NA**
**Prep Batch: 45768**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.0453 | 0.02559 | | mg/Kg | ☼ | 56 | 31 - 143 | 7 | 50 |
| Ethylbenzene | 0.0121 | | 0.0453 | 0.02378 | | mg/Kg | ☼ | 26 | 23 - 161 | 3 | 50 |
| Naphthalene | 0.214 | E B | 0.0453 | 0.2292 | E 4 | mg/Kg | ☼ | 33 | 10 - 176 | 9 | 50 |
| Toluene | ND | | 0.0453 | 0.02243 | | mg/Kg | ☼ | 49 | 30 - 155 | 1 | 50 |
| Xylenes, Total | 0.0269 | | 0.136 | 0.06830 | | mg/Kg | ☼ | 30 | 25 - 162 | 0 | 50 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *106* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *102* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *205* | *X* | *70 - 130* |

**Lab Sample ID: MB 490-46034/6**
**Matrix: Solid**
**Analysis Batch: 46034**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00200 | 0.000670 | mg/Kg | | | 12/22/12 20:02 | 1 |
| Ethylbenzene | ND | | 0.00200 | 0.000670 | mg/Kg | | | 12/22/12 20:02 | 1 |
| Naphthalene | 0.001713 | J | 0.00500 | 0.00170 | mg/Kg | | | 12/22/12 20:02 | 1 |
| Toluene | ND | | 0.00200 | 0.000740 | mg/Kg | | | 12/22/12 20:02 | 1 |
| Xylenes, Total | ND | | 0.00500 | 0.000670 | mg/Kg | | | 12/22/12 20:02 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *81* | | *70 - 130* | | *12/22/12 20:02* | *1* |
| *4-Bromofluorobenzene (Surr)* | *106* | | *70 - 130* | | *12/22/12 20:02* | *1* |
| *Dibromofluoromethane (Surr)* | *91* | | *70 - 130* | | *12/22/12 20:02* | *1* |
| *Toluene-d8 (Surr)* | *107* | | *70 - 130* | | *12/22/12 20:02* | *1* |

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

**Lab Sample ID: LCS 490-46034/3**
**Matrix: Solid**
**Analysis Batch: 46034**

**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 | 0.05170 | | mg/Kg | | 103 | 75 - 127 |
| Ethylbenzene | 0.0500 | 0.05580 | | mg/Kg | | 112 | 80 - 134 |
| Naphthalene | 0.0500 | 0.06079 | | mg/Kg | | 122 | 69 - 150 |
| Toluene | 0.0500 | 0.05442 | | mg/Kg | | 109 | 80 - 132 |
| Xylenes, Total | 0.150 | 0.1697 | | mg/Kg | | 113 | 80 - 137 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *100* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *102* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *107* | | *70 - 130* |

**Lab Sample ID: LCSD 490-46034/4**
**Matrix: Solid**
**Analysis Batch: 46034**

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.05204 | | mg/Kg | | 104 | 75 - 127 | 1 | 50 |
| Ethylbenzene | 0.0500 | 0.05541 | | mg/Kg | | 111 | 80 - 134 | 1 | 50 |
| Naphthalene | 0.0500 | 0.06091 | | mg/Kg | | 122 | 69 - 150 | 0 | 50 |
| Toluene | 0.0500 | 0.05387 | | mg/Kg | | 108 | 80 - 132 | 1 | 50 |
| Xylenes, Total | 0.150 | 0.1669 | | mg/Kg | | 111 | 80 - 137 | 2 | 50 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *104* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *105* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *105* | | *70 - 130* |

**Lab Sample ID: MB 490-46534/7**
**Matrix: Solid**
**Analysis Batch: 46534**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00200 | 0.000670 | mg/Kg | | | 12/26/12 13:26 | 1 |
| Ethylbenzene | ND | | 0.00200 | 0.000670 | mg/Kg | | | 12/26/12 13:26 | 1 |
| Naphthalene | ND | | 0.00500 | 0.00170 | mg/Kg | | | 12/26/12 13:26 | 1 |
| Toluene | ND | | 0.00200 | 0.000740 | mg/Kg | | | 12/26/12 13:26 | 1 |
| Xylenes, Total | 0.0007691 | J | 0.00500 | 0.000670 | mg/Kg | | | 12/26/12 13:26 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *70 - 130* | | *12/26/12 13:26* | *1* |
| *4-Bromofluorobenzene (Surr)* | *99* | | *70 - 130* | | *12/26/12 13:26* | *1* |
| *Dibromofluoromethane (Surr)* | *95* | | *70 - 130* | | *12/26/12 13:26* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *70 - 130* | | *12/26/12 13:26* | *1* |

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

**Lab Sample ID: LCS 490-46534/3**
**Matrix: Solid**
**Analysis Batch: 46534**

**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 | 0.04657 | | mg/Kg | | 93 | 75 - 127 |
| Ethylbenzene | 0.0500 | 0.04879 | | mg/Kg | | 98 | 80 - 134 |
| Naphthalene | 0.0500 | 0.05377 | | mg/Kg | | 108 | 69 - 150 |
| Toluene | 0.0500 | 0.04802 | | mg/Kg | | 96 | 80 - 132 |
| Xylenes, Total | 0.150 | 0.1413 | | mg/Kg | | 94 | 80 - 137 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *102* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *98* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *97* | | *70 - 130* |

**Lab Sample ID: LCSD 490-46534/4**
**Matrix: Solid**
**Analysis Batch: 46534**

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

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.0500 | 0.05006 | | mg/Kg | | 100 | 75 - 127 | 7 | 50 |
| Ethylbenzene | 0.0500 | 0.05208 | | mg/Kg | | 104 | 80 - 134 | 7 | 50 |
| Naphthalene | 0.0500 | 0.05768 | | mg/Kg | | 115 | 69 - 150 | 7 | 50 |
| Toluene | 0.0500 | 0.05183 | | mg/Kg | | 104 | 80 - 132 | 8 | 50 |
| Xylenes, Total | 0.150 | 0.1520 | | mg/Kg | | 101 | 80 - 137 | 7 | 50 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *94* | | *70 - 130* |
| *4-Bromofluorobenzene (Surr)* | *103* | | *70 - 130* |
| *Dibromofluoromethane (Surr)* | *98* | | *70 - 130* |
| *Toluene-d8 (Surr)* | *97* | | *70 - 130* |

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

**Lab Sample ID: MB 490-46650/1-A**
**Matrix: Solid**
**Analysis Batch: 46542**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 46650**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0670 | 0.0100 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Acenaphthylene | ND | | 0.0670 | 0.00900 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Anthracene | ND | | 0.0670 | 0.00900 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Benzo[a]anthracene | ND | | 0.0670 | 0.0150 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Benzo[a]pyrene | ND | | 0.0670 | 0.0120 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Benzo[b]fluoranthene | ND | | 0.0670 | 0.0120 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.0670 | 0.00900 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Benzo[k]fluoranthene | ND | | 0.0670 | 0.0140 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| 1-Methylnaphthalene | ND | | 0.0670 | 0.0140 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Pyrene | ND | | 0.0670 | 0.0120 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Phenanthrene | ND | | 0.0670 | 0.00900 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |

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

**Lab Sample ID: MB 490-46650/1-A**
**Matrix: Solid**
**Analysis Batch: 46542**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 46650**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chrysene | ND | | 0.0670 | 0.00900 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.0670 | 0.00700 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Fluoranthene | ND | | 0.0670 | 0.00900 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Fluorene | ND | | 0.0670 | 0.0120 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.0670 | 0.0100 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| Naphthalene | ND | | 0.0670 | 0.00900 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |
| 2-Methylnaphthalene | ND | | 0.0670 | 0.0160 | mg/Kg | | 12/26/12 13:37 | 12/26/12 16:34 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *70* | | *29 - 120* | *12/26/12 13:37* | *12/26/12 16:34* | *1* |
| *Terphenyl-d14 (Surr)* | *87* | | *13 - 120* | *12/26/12 13:37* | *12/26/12 16:34* | *1* |
| *Nitrobenzene-d5 (Surr)* | *60* | | *27 - 120* | *12/26/12 13:37* | *12/26/12 16:34* | *1* |

**Lab Sample ID: LCS 490-46650/2-A**
**Matrix: Solid**
**Analysis Batch: 46542**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 46650**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthylene | 1.67 | 1.379 | | mg/Kg | | 83 | 38 - 120 |
| Anthracene | 1.67 | 1.357 | | mg/Kg | | 81 | 46 - 124 |
| Benzo[a]anthracene | 1.67 | 1.374 | | mg/Kg | | 82 | 45 - 120 |
| Benzo[a]pyrene | 1.67 | 1.355 | | mg/Kg | | 81 | 45 - 120 |
| Benzo[b]fluoranthene | 1.67 | 1.351 | | mg/Kg | | 81 | 42 - 120 |
| Benzo[g,h,i]perylene | 1.67 | 1.308 | | mg/Kg | | 78 | 38 - 120 |
| Benzo[k]fluoranthene | 1.67 | 1.304 | | mg/Kg | | 78 | 42 - 120 |
| 1-Methylnaphthalene | 1.67 | 1.370 | | mg/Kg | | 82 | 32 - 120 |
| Pyrene | 1.67 | 1.371 | | mg/Kg | | 82 | 43 - 120 |
| Phenanthrene | 1.67 | 1.408 | | mg/Kg | | 84 | 45 - 120 |
| Chrysene | 1.67 | 1.309 | | mg/Kg | | 79 | 43 - 120 |
| Dibenz(a,h)anthracene | 1.67 | 1.354 | | mg/Kg | | 81 | 32 - 128 |
| Fluoranthene | 1.67 | 1.282 | | mg/Kg | | 77 | 46 - 120 |
| Fluorene | 1.67 | 1.336 | | mg/Kg | | 80 | 42 - 120 |
| Indeno[1,2,3-cd]pyrene | 1.67 | 1.349 | | mg/Kg | | 81 | 41 - 121 |
| Naphthalene | 1.67 | 1.408 | | mg/Kg | | 84 | 32 - 120 |
| 2-Methylnaphthalene | 1.67 | 1.380 | | mg/Kg | | 83 | 28 - 120 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *68* | | *29 - 120* |
| *Terphenyl-d14 (Surr)* | *88* | | *13 - 120* |
| *Nitrobenzene-d5 (Surr)* | *65* | | *27 - 120* |

**Lab Sample ID: 490-15279-1 MS**
**Matrix: Solid**
**Analysis Batch: 46542**

**Client Sample ID: 661 Camellia**
**Prep Type: Total/NA**
**Prep Batch: 46650**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthylene | ND | | 1.70 | 1.465 | | mg/Kg | ☼ | 86 | 25 - 120 |
| Anthracene | ND | | 1.70 | 1.415 | | mg/Kg | ☼ | 83 | 28 - 125 |

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

**Lab Sample ID: 490-15279-1 MS**
**Matrix: Solid**
**Analysis Batch: 46542**

**Client Sample ID: 661 Camellia**
**Prep Type: Total/NA**
**Prep Batch: 46650**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]anthracene | ND | | 1.70 | 1.412 | | mg/Kg | ☼ | 83 | 23 - 120 |
| Benzo[a]pyrene | ND | | 1.70 | 1.398 | | mg/Kg | ☼ | 82 | 15 - 128 |
| Benzo[b]fluoranthene | ND | | 1.70 | 1.365 | | mg/Kg | ☼ | 80 | 12 - 133 |
| Benzo[g,h,i]perylene | ND | | 1.70 | 1.381 | | mg/Kg | ☼ | 81 | 22 - 120 |
| Benzo[k]fluoranthene | ND | | 1.70 | 1.421 | | mg/Kg | ☼ | 83 | 28 - 120 |
| 1-Methylnaphthalene | ND | | 1.70 | 1.356 | | mg/Kg | ☼ | 80 | 10 - 120 |
| Pyrene | ND | | 1.70 | 1.368 | | mg/Kg | ☼ | 80 | 20 - 123 |
| Phenanthrene | ND | | 1.70 | 1.473 | | mg/Kg | ☼ | 86 | 21 - 122 |
| Chrysene | ND | | 1.70 | 1.359 | | mg/Kg | ☼ | 80 | 20 - 120 |
| Dibenz(a,h)anthracene | ND | | 1.70 | 1.400 | | mg/Kg | ☼ | 82 | 12 - 128 |
| Fluoranthene | ND | | 1.70 | 1.439 | | mg/Kg | ☼ | 84 | 10 - 143 |
| Fluorene | ND | | 1.70 | 1.466 | | mg/Kg | ☼ | 86 | 20 - 120 |
| Indeno[1,2,3-cd]pyrene | ND | | 1.70 | 1.404 | | mg/Kg | ☼ | 82 | 22 - 121 |
| Naphthalene | ND | | 1.70 | 1.349 | | mg/Kg | ☼ | 79 | 10 - 120 |
| 2-Methylnaphthalene | ND | | 1.70 | 1.376 | | mg/Kg | ☼ | 81 | 13 - 120 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *68* | | *29 - 120* |
| *Terphenyl-d14 (Surr)* | *85* | | *13 - 120* |
| *Nitrobenzene-d5 (Surr)* | *60* | | *27 - 120* |

**Lab Sample ID: 490-15279-1 MSD**
**Matrix: Solid**
**Analysis Batch: 46542**

**Client Sample ID: 661 Camellia**
**Prep Type: Total/NA**
**Prep Batch: 46650**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthylene | ND | | 1.71 | 1.395 | | mg/Kg | ☼ | 82 | 25 - 120 | 5 | 50 |
| Anthracene | ND | | 1.71 | 1.377 | | mg/Kg | ☼ | 81 | 28 - 125 | 3 | 49 |
| Benzo[a]anthracene | ND | | 1.71 | 1.400 | | mg/Kg | ☼ | 82 | 23 - 120 | 1 | 50 |
| Benzo[a]pyrene | ND | | 1.71 | 1.371 | | mg/Kg | ☼ | 80 | 15 - 128 | 2 | 50 |
| Benzo[b]fluoranthene | ND | | 1.71 | 1.414 | | mg/Kg | ☼ | 83 | 12 - 133 | 4 | 50 |
| Benzo[g,h,i]perylene | ND | | 1.71 | 1.331 | | mg/Kg | ☼ | 78 | 22 - 120 | 4 | 50 |
| Benzo[k]fluoranthene | ND | | 1.71 | 1.377 | | mg/Kg | ☼ | 81 | 28 - 120 | 3 | 45 |
| 1-Methylnaphthalene | ND | | 1.71 | 1.369 | | mg/Kg | ☼ | 80 | 10 - 120 | 1 | 50 |
| Pyrene | ND | | 1.71 | 1.376 | | mg/Kg | ☼ | 81 | 20 - 123 | 1 | 50 |
| Phenanthrene | ND | | 1.71 | 1.424 | | mg/Kg | ☼ | 83 | 21 - 122 | 3 | 50 |
| Chrysene | ND | | 1.71 | 1.385 | | mg/Kg | ☼ | 81 | 20 - 120 | 2 | 49 |
| Dibenz(a,h)anthracene | ND | | 1.71 | 1.367 | | mg/Kg | ☼ | 80 | 12 - 128 | 2 | 50 |
| Fluoranthene | ND | | 1.71 | 1.380 | | mg/Kg | ☼ | 81 | 10 - 143 | 4 | 50 |
| Fluorene | ND | | 1.71 | 1.347 | | mg/Kg | ☼ | 79 | 20 - 120 | 8 | 50 |
| Indeno[1,2,3-cd]pyrene | ND | | 1.71 | 1.339 | | mg/Kg | ☼ | 78 | 22 - 121 | 5 | 50 |
| Naphthalene | ND | | 1.71 | 1.372 | | mg/Kg | ☼ | 80 | 10 - 120 | 2 | 50 |
| 2-Methylnaphthalene | ND | | 1.71 | 1.373 | | mg/Kg | ☼ | 80 | 13 - 120 | 0 | 50 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *2-Fluorobiphenyl (Surr)* | *66* | | *29 - 120* |
| *Terphenyl-d14 (Surr)* | *83* | | *13 - 120* |

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

**Lab Sample ID: 490-15279-1 MSD**
**Matrix: Solid**
**Analysis Batch: 46542**

**Client Sample ID: 661 Camellia**
**Prep Type: Total/NA**
**Prep Batch: 46650**

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *Nitrobenzene-d5 (Surr)* | *60* | | *27 - 120* |

## Method: Moisture - Percent Moisture

**Lab Sample ID: 450-8381-A-1 DU**
**Matrix: Solid**
**Analysis Batch: 45690**

**Client Sample ID: Duplicate**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Percent Solids | 94 | | 93 | | % | | 0.5 | 20 |

# QC Association Summary

Client: Environmental Enterprise Group
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-15279-1

## GC/MS VOA

### Prep Batch: 45675

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-15279-1 | 661 Camellia | Total/NA | Solid | 5035 | |
| 490-15279-2 | 700 Bluebell | Total/NA | Solid | 5035 | |
| 490-15279-3 | 660 Camellia | Total/NA | Solid | 5035 | |
| 490-15279-4 | 455 Elderberry | Total/NA | Solid | 5035 | |
| 490-15279-5 | 586 Aster | Total/NA | Solid | 5035 | |
| 490-15279-6 | 666 Camellia | Total/NA | Solid | 5035 | |

### Prep Batch: 45768

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-15331-A-2-D MS | Matrix Spike | Total/NA | Solid | 5035 | |
| 490-15331-A-2-E MSD | Matrix Spike Duplicate | Total/NA | Solid | 5035 | |

### Analysis Batch: 46034

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-15279-1 | 661 Camellia | Total/NA | Solid | 8260B | 45675 |
| 490-15279-2 | 700 Bluebell | Total/NA | Solid | 8260B | 45675 |
| 490-15279-3 | 660 Camellia | Total/NA | Solid | 8260B | 45675 |
| 490-15279-4 | 455 Elderberry | Total/NA | Solid | 8260B | 45675 |
| 490-15279-5 | 586 Aster | Total/NA | Solid | 8260B | 45675 |
| 490-15331-A-2-D MS | Matrix Spike | Total/NA | Solid | 8260B | 45768 |
| 490-15331-A-2-E MSD | Matrix Spike Duplicate | Total/NA | Solid | 8260B | 45768 |
| LCS 490-46034/3 | Lab Control Sample | Total/NA | Solid | 8260B | |
| LCSD 490-46034/4 | Lab Control Sample Dup | Total/NA | Solid | 8260B | |
| MB 490-46034/6 | Method Blank | Total/NA | Solid | 8260B | |

### Analysis Batch: 46534

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-15279-6 | 666 Camellia | Total/NA | Solid | 8260B | 45675 |
| LCS 490-46534/3 | Lab Control Sample | Total/NA | Solid | 8260B | |
| LCSD 490-46534/4 | Lab Control Sample Dup | Total/NA | Solid | 8260B | |
| MB 490-46534/7 | Method Blank | Total/NA | Solid | 8260B | |

## GC/MS Semi VOA

### Analysis Batch: 46542

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-15279-1 | 661 Camellia | Total/NA | Solid | 8270D | 46650 |
| 490-15279-1 MS | 661 Camellia | Total/NA | Solid | 8270D | 46650 |
| 490-15279-1 MSD | 661 Camellia | Total/NA | Solid | 8270D | 46650 |
| 490-15279-2 | 700 Bluebell | Total/NA | Solid | 8270D | 46650 |
| 490-15279-3 | 660 Camellia | Total/NA | Solid | 8270D | 46650 |
| 490-15279-4 | 455 Elderberry | Total/NA | Solid | 8270D | 46650 |
| 490-15279-5 | 586 Aster | Total/NA | Solid | 8270D | 46650 |
| 490-15279-6 | 666 Camellia | Total/NA | Solid | 8270D | 46650 |
| LCS 490-46650/2-A | Lab Control Sample | Total/NA | Solid | 8270D | 46650 |
| MB 490-46650/1-A | Method Blank | Total/NA | Solid | 8270D | 46650 |

### Prep Batch: 46650

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-15279-1 | 661 Camellia | Total/NA | Solid | 3550C | |

## GC/MS Semi VOA (Continued)

### Prep Batch: 46650 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 490-15279-1 MS | 661 Camellia | Total/NA | Solid | 3550C | |
| 490-15279-1 MSD | 661 Camellia | Total/NA | Solid | 3550C | |
| 490-15279-2 | 700 Bluebell | Total/NA | Solid | 3550C | |
| 490-15279-3 | 660 Camellia | Total/NA | Solid | 3550C | |
| 490-15279-4 | 455 Elderberry | Total/NA | Solid | 3550C | |
| 490-15279-5 | 586 Aster | Total/NA | Solid | 3550C | |
| 490-15279-6 | 666 Camellia | Total/NA | Solid | 3550C | |
| LCS 490-46650/2-A | Lab Control Sample | Total/NA | Solid | 3550C | |
| MB 490-46650/1-A | Method Blank | Total/NA | Solid | 3550C | |

## General Chemistry

### Analysis Batch: 45690

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 450-8381-A-1 DU | Duplicate | Total/NA | Solid | Moisture | |
| 490-15279-1 | 661 Camellia | Total/NA | Solid | Moisture | |
| 490-15279-2 | 700 Bluebell | Total/NA | Solid | Moisture | |
| 490-15279-3 | 660 Camellia | Total/NA | Solid | Moisture | |
| 490-15279-4 | 455 Elderberry | Total/NA | Solid | Moisture | |
| 490-15279-5 | 586 Aster | Total/NA | Solid | Moisture | |
| 490-15279-6 | 666 Camellia | Total/NA | Solid | Moisture | |

# Lab Chronicle

Client: Environmental Enterprise Group
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-15279-1

## Client Sample ID: 661 Camellia

**Date Collected: 12/17/12 14:00**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-1

**Matrix: Solid**
**Percent Solids: 97.0**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 45675 | 12/21/12 08:22 | ML | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 46034 | 12/23/12 00:33 | AF | TAL NSH |
| Total/NA | Prep | 3550C | | | 46650 | 12/26/12 13:37 | PA | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 46542 | 12/26/12 17:16 | WS | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | 45690 | 12/21/12 08:38 | RS | TAL NSH |

## Client Sample ID: 700 Bluebell

**Date Collected: 12/18/12 14:05**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-2

**Matrix: Solid**
**Percent Solids: 96.4**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 45675 | 12/21/12 08:22 | ML | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 46034 | 12/23/12 01:03 | AF | TAL NSH |
| Total/NA | Prep | 3550C | | | 46650 | 12/26/12 13:37 | PA | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 46542 | 12/26/12 19:08 | WS | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | 45690 | 12/21/12 08:38 | RS | TAL NSH |

## Client Sample ID: 660 Camellia

**Date Collected: 12/19/12 13:15**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-3

**Matrix: Solid**
**Percent Solids: 95.3**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 45675 | 12/21/12 08:22 | ML | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 46034 | 12/23/12 01:34 | AF | TAL NSH |
| Total/NA | Prep | 3550C | | | 46650 | 12/26/12 13:37 | PA | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 46542 | 12/26/12 19:29 | WS | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | 45690 | 12/21/12 08:38 | RS | TAL NSH |

## Client Sample ID: 455 Elderberry

**Date Collected: 12/17/12 15:15**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-4

**Matrix: Solid**
**Percent Solids: 91.5**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 45675 | 12/21/12 08:22 | ML | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 46034 | 12/23/12 02:04 | AF | TAL NSH |
| Total/NA | Prep | 3550C | | | 46650 | 12/26/12 13:37 | PA | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 46542 | 12/26/12 19:50 | WS | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | 45690 | 12/21/12 08:38 | RS | TAL NSH |

# Lab Chronicle

Client: Environmental Enterprise Group
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-15279-1

## Client Sample ID: 586 Aster

**Date Collected: 12/18/12 15:00**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-5

**Matrix: Solid**
**Percent Solids: 93.7**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 45675 | 12/21/12 08:22 | ML | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 46034 | 12/23/12 02:34 | AF | TAL NSH |
| Total/NA | Prep | 3550C | | | 46650 | 12/26/12 13:37 | PA | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 46542 | 12/26/12 20:11 | WS | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | 45690 | 12/21/12 08:38 | RS | TAL NSH |

## Client Sample ID: 666 Camellia

**Date Collected: 12/19/12 14:15**
**Date Received: 12/20/12 08:30**

## Lab Sample ID: 490-15279-6

**Matrix: Solid**
**Percent Solids: 96.8**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 5035 | | | 45675 | 12/21/12 08:22 | ML | TAL NSH |
| Total/NA | Analysis | 8260B | | 1 | 46534 | 12/26/12 15:51 | MH | TAL NSH |
| Total/NA | Prep | 3550C | | | 46650 | 12/26/12 13:37 | PA | TAL NSH |
| Total/NA | Analysis | 8270D | | 1 | 46542 | 12/26/12 20:32 | WS | TAL NSH |
| Total/NA | Analysis | Moisture | | 1 | 45690 | 12/21/12 08:38 | RS | TAL NSH |

**Laboratory References:**

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

# Method Summary

Client: Environmental Enterprise Group
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-15279-1

| 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: Environmental Enterprise Group
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-15279-1

## 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 |
|---|---|---|---|---|
| | ACIL | | 393 | 10-30-13 |
| A2LA | ISO/IEC 17025 | | 0453.07 | 12-31-13 |
| Alabama | State Program | 4 | 41150 | 05-31-13 |
| Alaska (UST) | State Program | 10 | UST-087 | 07-24-13 |
| Arizona | State Program | 9 | AZ0473 | 05-05-13 |
| Arkansas DEQ | State Program | 6 | 88-0737 | 04-25-13 |
| California | NELAP | 9 | 1168CA | 10-31-13 |
| Canadian Assoc Lab Accred (CALA) | Canada | | 3744 | 03-08-14 |
| Colorado | State Program | 8 | N/A | 02-28-13 |
| Connecticut | State Program | 1 | PH-0220 | 12-31-13 |
| Florida | NELAP | 4 | E87358 | 06-30-13 |
| Illinois | NELAP | 5 | 200010 | 12-09-13 |
| Iowa | State Program | 7 | 131 | 05-01-14 |
| Kansas | NELAP | 7 | E-10229 | 10-31-13 |
| Kentucky | State Program | 4 | 90038 | 12-31-12 |
| Kentucky (UST) | State Program | 4 | 19 | 09-15-13 |
| Louisiana | NELAP | 6 | LA120025 | 12-31-12 |
| Louisiana | NELAP | 6 | 30613 | 06-30-13 |
| Maryland | State Program | 3 | 316 | 03-31-13 |
| Massachusetts | State Program | 1 | M-TN032 | 06-30-13 |
| Minnesota | NELAP | 5 | 047-999-345 | 12-31-12 |
| Mississippi | State Program | 4 | N/A | 06-30-13 |
| Montana (UST) | State Program | 8 | NA | 01-01-15 |
| Nevada | State Program | 9 | TN00032 | 07-31-13 |
| New Hampshire | NELAP | 1 | 2963 | 10-09-13 |
| New Jersey | NELAP | 2 | TN965 | 06-30-13 |
| New York | NELAP | 2 | 11342 | 04-01-13 |
| North Carolina DENR | State Program | 4 | 387 | 12-31-12 |
| North Dakota | State Program | 8 | R-146 | 06-30-13 |
| Ohio VAP | State Program | 5 | CL0033 | 01-19-14 |
| Oklahoma | State Program | 6 | 9412 | 08-31-13 |
| Oregon | NELAP | 10 | TN200001 | 04-30-13 |
| Pennsylvania | NELAP | 3 | 68-00585 | 06-30-13 |
| Rhode Island | State Program | 1 | LAO00268 | 12-30-12 |
| South Carolina | State Program | 4 | 84009 (001) | 02-28-13 |
| South Carolina | State Program | 4 | 84009 (002) | 02-23-14 |
| Tennessee | State Program | 4 | 2008 | 02-23-14 |
| Texas | NELAP | 6 | T104704077-09-TX | 08-31-13 |
| USDA | Federal | | S-48469 | 11-02-13 |
| Utah | NELAP | 8 | TAN | 06-30-13 |
| Virginia | NELAP | 3 | 460152 | 06-14-13 |
| Washington | State Program | 10 | C789 | 07-19-13 |
| West Virginia DEP | State Program | 3 | 219 | 02-28-13 |
| Wisconsin | State Program | 5 | 998020430 | 08-31-13 |
| Wyoming (UST) | A2LA | 8 | 453.07 | 12-31-13 |

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

# COOLER RECEIPT F(

490-15279 Chain of Custody

Cooler Received/Opened On 12/20/2012 @ 0830

1. Tracking # 5750 (last 4 digits, FedEx)

Courier: Fedex IR Gun ID 94660220

2. Temperature of rep. sample or temp blank when opened: 0.9 *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: (2) 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 (intial) (M)

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 # NA

I certify that I unloaded the cooler and answered questions 7-14 (intial) (F)

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 (intial) (F)

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 (intial) (F)

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

21. Were there Non-Conformance issues at login? YES..(NO) Was a NCM generated? YES..(NO)..#

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 11/28/12

Pg 1 of 2

12/28/2012

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville Division
2960 Foster Creighton
Nashville, TN 37204
Phone: 615-726-0177
Toll Free: 800-765-0980
Fax: 615-726-3404

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

Compliance Monitoring? Yes ____ No ____

Enforcement Action? Yes ____ No ____

Client Name/Account #: EEG - SBG # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

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

Telephone Number: 843.412.2097 Fax No.: 843-879-0401

Sampler Name: (Print) Chris Tunstall

Sampler Signature:

Site State: SC

POS: 1063

TA Quote #:

Project ID: Laurel Bay Housing Project

Project #:

| Sample ID / Description | Date Sampled | Time Sampled | No. of Containers Shipped | Grab | Composite | Field Filtered | Preservative: Ice | HNO3 (Red Label) | HCl (Blue Label) | NaOH (Orange Label) | H2SO4 Plastic (Yellow Label) | H2SO4 Glass (Yellow Label) | None (Black Label) | Other (Specify) | Matrix: Groundwater | Wastewater | Drinking Water | Sludge | Soil | Other (specify): | Analyze For: BTEX + Naphth - 8260B | PAH - 8270D | RUSH TAT (Pre-Scheduled) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 661 Camellia | 12/10/12 | 1400 | 4 | X | | | | | 2 | | | | - | - | | | | | X | | X | X | |
| 700 Bluebell | 12/18/12 | 1405 | 4 | X | | | | | 2 | | | | - | - | | | | | X | | 4 | 4 | |
| 660 Camellia | 12/19/12 | 1315 | 4 | X | | | | | 2 | | | | 1 | 1 | | | | | X | | 4 | 4 | |

Loc: 490
15279

Special Instructions:

Method of Shipment: FEDEX

Laboratory Comments:
Temperature Upon Receipt: 0.9
VOCs Free of Headspace? Y

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| | 12/19/12 | 1600 | Fed Ex | | |
| Relinquished by: | Date | Time | Received by: | Date | Time |
| | | | | 12-20-12 | 08:30 |

Pg 2 of 2

12/28/2012

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville Division
2960 Foster Creighton
Nashville, TN 37204
Phone: 615-726-0177
Toll Free: 800-765-0980
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring? Yes ____ No ____
Enforcement Action? Yes ____ No ____

Client Name/Account #: EEG - SBG # 2449
Address: 10179 Highway 78
City/State/Zip: Ladson, SC 29456
Project Manager: Tom McElwee email: mcelwee@eeginc.net
Telephone Number: 843.412.2097 Fax No.: 843-879-0401
Sampler Name: (Print) Brett Shaw
Sampler Signature:

Site State: SC
PO#: 1063
TA Quote #:
Project ID: Laurel Bay Housing Project
Project #:

| Sample ID / Description | Date Sampled | Time Sampled | No. of Containers Shipped | Grab | Composite | Field Filtered | Preservative: Ice | HNO3 (Red Label) | NaOH (Blue Label) | MeOH (Orange Label) | H2SO4 Plastic (Yellow Label) | H2SO4 Glass (Yellow Label) | None (Black Label) | Other (Specify) | Matrix: Groundwater | Wastewater | Drinking Water | Sludge | Soil | Other (specify) | Analyze For: BTEX + Naphth - 8260B | PAH - 8270D | Loc: 490 15279 | RUSH TAT (Pre-Schedule) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 455 Redbud | 12/17/12 | 1515 | 4 | X | | | | | 2 | | | | 1 | 1 | | | | | X | | X | X | | |
| 586 Aster | 12/18/12 | 1500 | 4 | X | | | | | 2 | | | | 1 | 1 | | | | | X | | X | X | | |
| 666 Camellia | 12/19/12 | 1415 | 4 | X | | | | | 2 | | | | 1 | 1 | | | | | X | | X | X | | |

Special Instructions:

Method of Shipment: FEDEX

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| | 12/19/12 | 1600 | Fedex | | |
| Relinquished by: | Date | Time | Received by/Temperature: | Date | Time |
| | | | TAN 0.9 | 12-20-12 | 08:30 |

Laboratory Comments:
Temperature Upon Receipt:
VOCs Free of Headspace? Y

# Login Sample Receipt Checklist

Client: Environmental Enterprise Group

Job Number: 490-15279-1
SDG Number:

**Login Number: 15279**
**List Number: 1**
**Creator: Ford, Easton**

**List Source: TestAmerica Nashville**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= 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. | 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"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

ATTACHMENT A

# NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

**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
**4. Generator's Phone** 843-879-0411

**Generator's Site Address** (If different than mailing):

A. Manifest Number **WMNA** 01519107

B. State Generator's ID

**5. Transporter 1 Company Name** | **6. US EPA ID Number**

C. State Transporter's ID

D. Transporter's Phone

**7. Transporter 2 Company Name** | **8. US EPA ID Number**

E. State Transporter's ID

F. 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**

G. State Facility ID

H. State Facility Phone 843-987-4643

GENERATOR

| 11. Description of Waste Materials | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. | I. Misc. Comments |
|---|---|---|---|---|---|
| a. HEATING OIL TANK FILLED WITH SAND<br>WM Profile # 102655SC | | | | | |
| b.<br>WM Profile # | | | | | |
| c.<br>WM Profile # | | | | | |
| d.<br>WM Profile # | | | | | |

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level

Grid

15. Special Handling Instructions and Additional Information
UST's from: 1) 679 Camellia 2) 468 Dogwood 3) 455 Elderberry 4) 661 Camellia 5) 586 Aster 6) 700 Bluebell

Purchase Order # | EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR 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 |
|---|---|---|---|---|
| | | 2 | 4 | 13 |

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

| Printed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Prath Shan | | 2 | 4 | 13 |

18. Transporter 2 Acknowledgement of Receipt of Materials

| Printed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| James Baldwin | James Baldwin | | | |

FACILITY

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.

| Printed Name | Signature | Month | Day | Year |
|---|---|---|---|---|
| Tom Canfield | Tom Canfield | 2 | 6 | 13 |

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY | Blue- GENERATOR #2 COPY | Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY | Gold- TRANSPORTER #1 COPY

**Appendix C**
**Regulatory Correspondence**

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
*Promoting and protecting the health of the public and the environment*

May 15, 2014

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 above 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)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
*Promoting and protecting the health of the public and the environment*

**Attachment to:** Krieg to Drawdy
Subject: NFA
Dated 5/15/2014

**Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks)**

| | |
|---|---|
| 212 Balsam | 503 Laurel Bay |
| 219 Balsam | 508 Laurel Bay |
| 260 Beech Tank 1 | 510 Laurel Bay |
| 260 Beech Tank 2 | 523 Laurel Bay |
| 267 Birch | 525 Laurel Bay |
| 287 Birch | 529 Laurel Bay |
| 302 Ash | 533 Laurel Bay |
| 305 Ash | 537 Laurel Bay |
| 334 Ash | 556 Dahlia |
| 338 Ash Tank 1 | 557 Dahlia |
| 338 Ash Tank 2 | 559 Dahlia |
| 361 Aspen | 562 Dahlia |
| 371 Aspen | 568 Dahlia |
| 372 Aspen Tank 1 | 581 Aster |
| 372 Aspen Tank 2 | 582 Aster |
| 375 Aspen | 584 Aster |
| 385 Aspen | 602 Dahlia |
| 403 Elderberry | 607 Dahlia |
| 407 Elderberry | 614 Dahlia |
| 411 Elderberry | 616 Dahlia |
| 414 Elderberry | 619 Dahlia |
| 415 Elderberry | 625 Dahlia |
| 421 Elderberry | 629 Dahlia |
| 427 Elderberry | 631 Dahlia |
| 428 Elderberry | 634 Dahlia |
| 431 Elderberry | 660 Camellia |
| 455 Elderberry | 661 Camellia |
| 484 Laurel Bay | 666 Camellia |
| 490 Laurel Bay | 669 Camellia |
| 502 Laurel Bay | 672 Camellia |

**Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks) cont.**

| | |
|---|---|
| 674 Camellia | 880 Cobia |
| 677 Camellia | 890 Cobia |
| 679 Camellia | 892 Cobia |
| 686 Camellia | 900 Barracuda |
| 690 Camellia | 906 Barracuda |
| 698 Abelia | 911 Barracuda |
| 700 Bluebell | 912 Barracuda |
| 704 Bluebell | 917 Barracuda |
| 705 Bluebell | 919 Barracuda |
| 708 Bluebell | 928 Albacore |
| 710 Bluebell | 1024 Foxglove |
| 711 Bluebell | 1028 Foxglove |
| 714 Bluebell | 1029 Foxglove |
| 715 Bluebell | 1038 Iris |
| 726 Bluebell | 1049 Gardenia |
| 728 Bluebell | 1079 Heather |
| 731 Bluebell | 1103 Iris |
| 734 Bluebell | 1122 Iris |
| 759 Althea | 1136 Iris |
| 761 Althea | 1173 Bobwhite |
| 773 Althea | 1200 Cardinal |
| 778 Laurel Bay | 1221 Cardinal |
| 807 Azalea | 1238 Dove |
| 814 Azalea | 1241 Dove |
| 815 Azalea | 1242 Dove |
| 818 Azalea | 1248 Dove |
| 820 Azalea | 1262 Dove |
| 821 Azalea | 1265 Dove |
| 831 Azalea | 1267 Dove |
| 832 Azalea | 1289 Eagle |
| 834 Azalea | 1298 Eagle |
| 835 Azalea | 1300 Eagle |
| 841 Azalea | 1303 Eagle |
| 853 Dolphin | 1304 Eagle |
| 858 Dolphin | 1315 Albatross |
| 869 Cobia | 1316 Albatross |
| 874 Cobia | 1320 Albatross |
| 875 Cobia | 1338 Albatross |

| | |
|---|---|
| 1340 Albatross | |
| 1342 Albatross | |
| 1344 Cardinal | |
| 1345 Cardinal | |
| 1349 Cardinal | |
| 1355 Cardinal | |
| 1366 Cardinal | |
| 1374 Dove | |
| 1375 Dove | |
| 1415 Albatross | |