# SUMMARY REPORT
# 166 ASTER STREET (FORMERLY 584 ASTER STREET)
# LAUREL BAY MILITARY HOUSING AREA
# MARINE CORPS AIR STATION BEAUFORT
# BEAUFORT, SC

Revision: 0

Prepared for:

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

and


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

JUNE 2021

SUMMARY REPORT
166 ASTER STREET (FORMERLY 584 ASTER STREET)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0
Prepared for:

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

and

Naval Facilities Engineering Command Atlantic

9324 Virginia Avenue
Norfolk, Virginia 23511-3095

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 166 Aster Street (Formerly 584 Aster Street). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

### 1.1 Background Information

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

is bordered on the west by salt marshes and the Broad River, and to the north, east and south by uplands. Forested areas lie along the northern and northeastern borders.

Capehart style homes within the LBMH area were formerly heated using heating oil stored in USTs at each residence. There were 1,100 Capehart style housing units in the LBMH area. The newer duplex homes within the LBMH area never utilized heating oil tanks. Heating oil has not been used at Laurel Bay since the mid-1980s. As was the accepted practice at the time, USTs were drained, filled with dirt, capped, and left in place when they were removed from service. Residential USTs are not regulated in the State of South Carolina (i.e., there are no federal or state laws governing installation, management, or removal).

In 2007, MCAS Beaufort began a voluntary program to remove the unregulated, residential USTs and conduct sampling activities to determine if, and to what extent, petroleum constituents may have impacted the surrounding environment. MCAS Beaufort coordinated with SCDHEC to develop removal procedures that were consistent with procedural requirements for regulated USTs. All tank removal activities and follow-on actions are conducted in coordination with SCDHEC. To date, all known USTs have been removed from all residential properties within the LBMH area.

## 1.2 UST Removal and Assessment Process

During the UST removal process, a soil sample was collected from beneath the UST excavations (approximately 4 to 6 feet [ft] below ground surface [bgs]) and analyzed for a predetermined list of constituents of potential concern (COPCs) associated with the petroleum compounds found in home heating oil. These COPCs, derived from the *Quality Assurance Program Plan (QAPP) for the Underground Storage Tank Management Division, Revision 3.1* (SCDHEC, 2016) and the *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service,* (SCDHEC, 2018), are as follows:

- benzene, toluene, ethylbenzene, and xylenes (BTEX),
- naphthalene, and
- five select polynuclear aromatic hydrocarbon (PAHs): benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and dibenz(a,h)anthracene.

Soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form. In accordance with SCDHEC's *QAPP for the UST Management*

*Division* (SCDHEC, 2016), the soil screening levels consists of SCDHEC risk-based screening levels (RBSLs). It should be noted that the RBSLs for select PAHs were revised in Revision 2.0 of the QAPP (SCDHEC, 2013) and were revised again in Revision 3.0 (SCDHEC, 2015). The screening levels used for evaluation at each site were those levels that were in effect at the time of reporting and review by SCDHEC.

The results of the soil sampling at each former UST location were used to determine if a potential for groundwater contamination exists (i.e., soil results greater than RBSLs) and subsequently to select properties for follow-up initial groundwater assessment (IGWA) sampling. The results of the IGWA sampling (if necessary) are used to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations will require additional delineation of COPCs in groundwater. In order to delineate the extent of impact to groundwater, permanent wells are installed and a sampling program is established for those former UST locations where IGWA sampling has indicated the presence of COPCs in excess of the SCDHEC RBSLs for groundwater. Groundwater analytical results are also compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion and the necessity for an investigation associated with this media. A multi-media investigation selection process tree, applicable to the LBMH UST investigations, is presented as Appendix A.

## 2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 166 Aster Street (Formerly 584 Aster Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 584 Aster Street* (MCAS Beaufort, 2012). The UST Assessment Report is provided in Appendix B.

### 2.1 UST Removal and Soil Sampling

On May 22, 2012, a single 280 gallon heating oil UST was removed from the rear patio area at 166 Aster Street (Formerly 584 Aster Street). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was

5'8" bgs and a single soil sample was collected from that depth. The sample was collected from the fill port side of the former UST to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of the excavation and shipped to an offsite laboratory for analysis of the petroleum COPCs. Sampling was performed in accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment guidelines.

## 2.2 Soil Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A copy of the laboratory analytical data report is included in the UST Assessment Report presented in Appendix B. The laboratory analytical data report includes the soil results for the additional PAHs that were analyzed, but do not have associated RBSLs.

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from 166 Aster Street (Formerly 584 Aster Street) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

# 3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 166 Aster Street (Formerly 584 Aster Street). 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, 2012. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 584 Aster Street, Laurel Bay Military Housing Area*, October 2012.

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**
**166 Aster Street (Formerly 584 Aster Street)**
**Laurel Bay Military Housing Area**
**Marine Corps Air Station Beaufort**
**Beaufort, South Carolina**

| Constituent | SCDHEC RBSLs [1] | Results Sample Collected 05/22/12 |
|---|---|---|
| **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

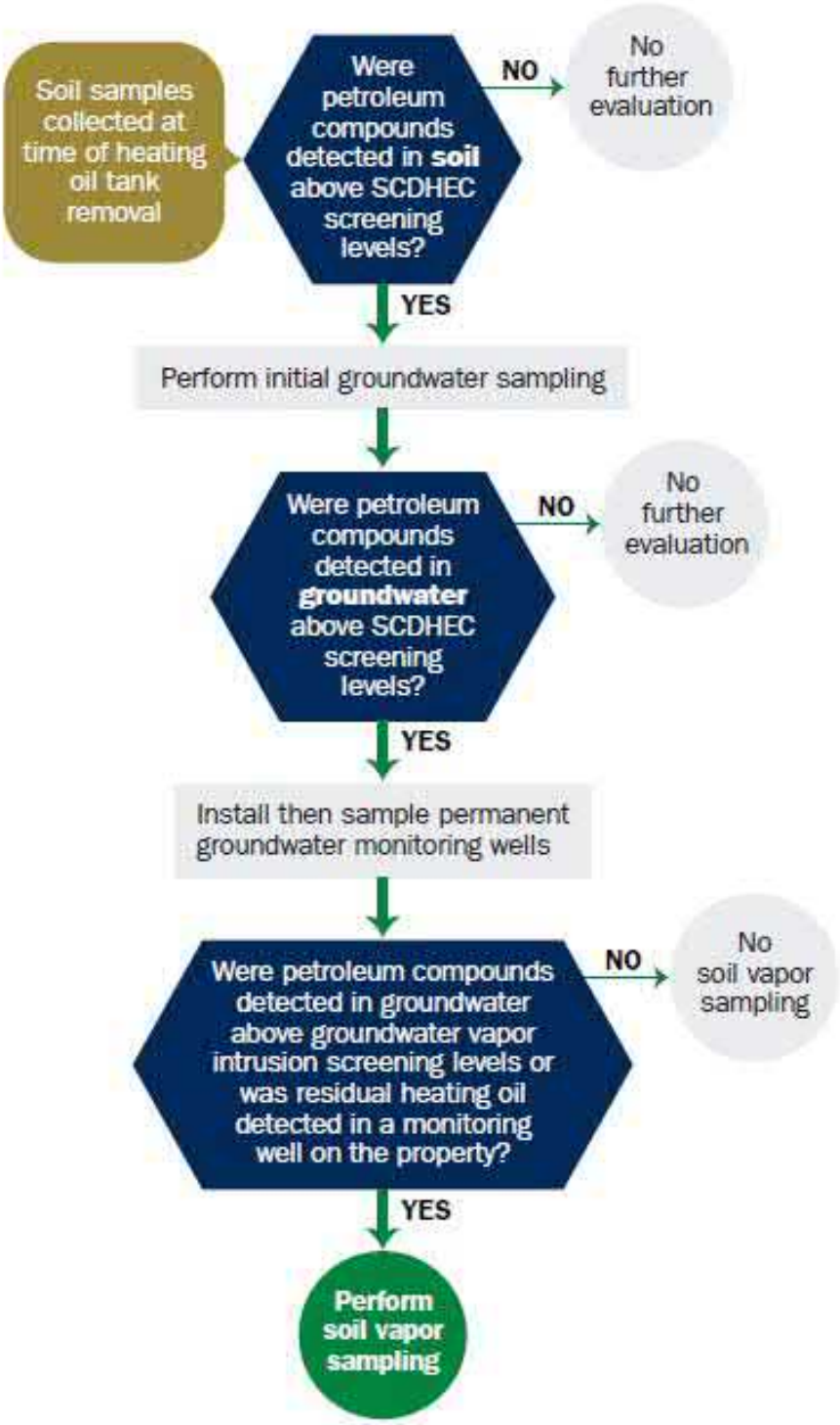
ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The laboratory report is provided in Appendix B.

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

Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

# Underground Storage Tank (UST) Assessment Report

| Date Received | State Use Only |
|---|---|

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

## I. OWNERSHIP OF UST (S)

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

584 Aster Street, 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)..... | 584Aster | | | | |
| 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 1980s | | | | |
| G. Spill Prevention Equipment Y/N..... | 5'8" | | | | |
| 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..... | 5/22/2012 | | | | |
| L. Visible Holes Y/N..... | Yes | | | | |
| | Yes | | | | |

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 584Aster 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 584Aster had been previously filled with sand by others.

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

## VII. PIPING INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| A. Construction Material..(ex. Steel, FRP)..... | 584Aster | | | | |
| 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..... | Yes | | | | |
| 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. 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 # |
|---|---|---|---|---|---|---|---|
| 584Aster | Excav at fill end | Soil | Sandy | 5'8" | 5/22/12 1445 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.

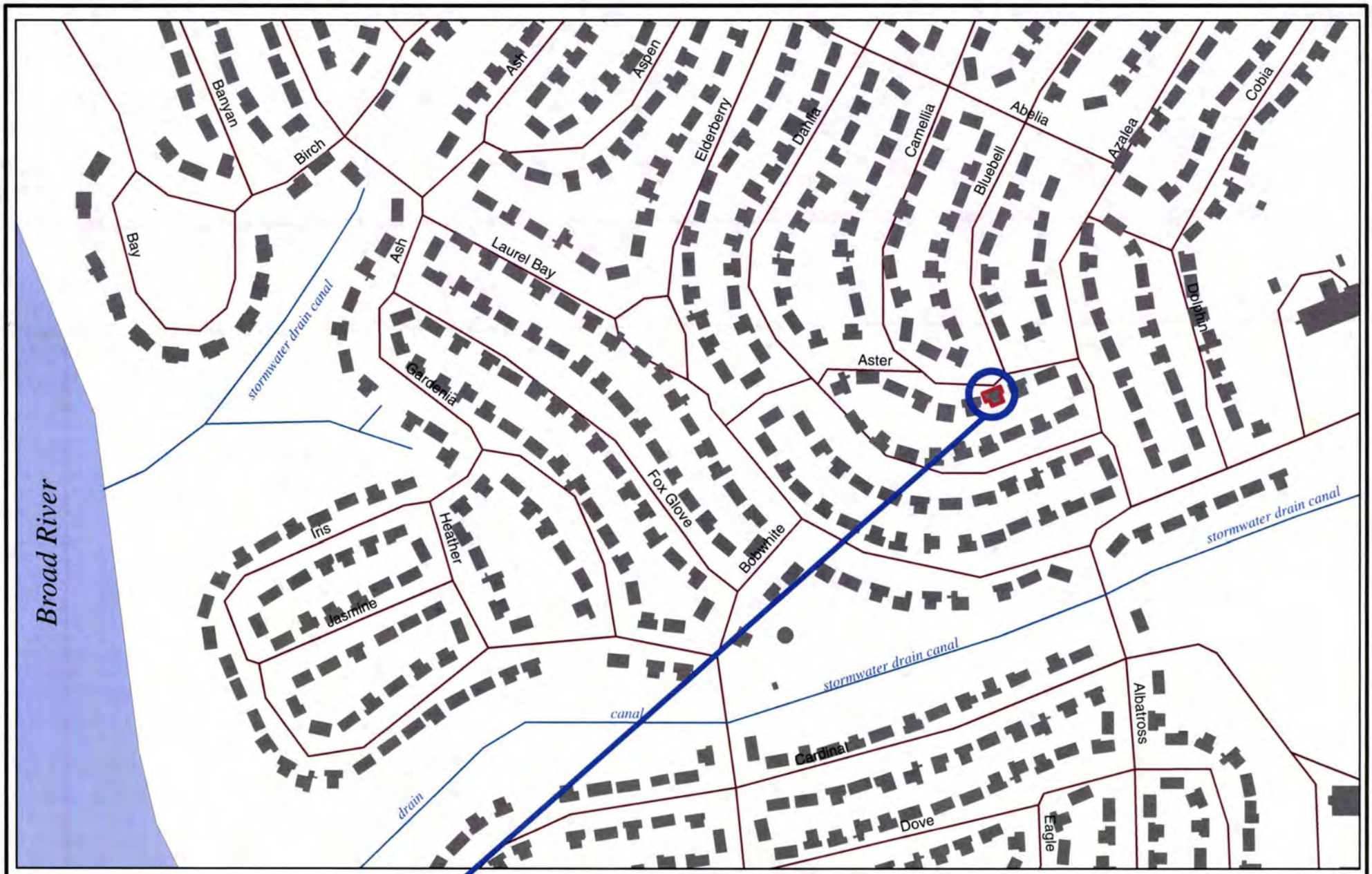
# XII. RECEPTORS

| | | Yes | No |
|---|---|---|---|
| A. | Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *Storm drain & 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<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)

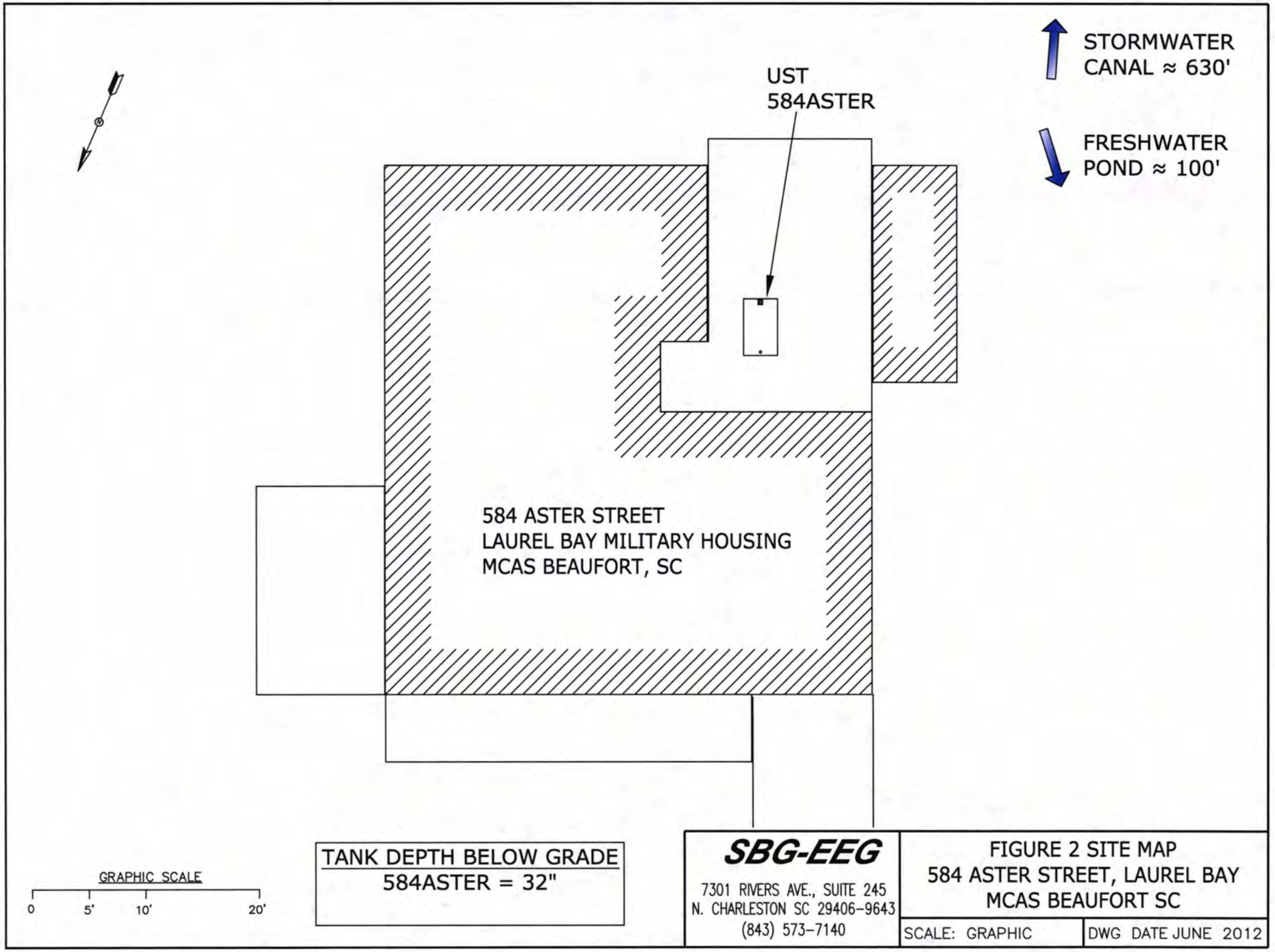



**SBG-EEG, Inc.**
7301 Rivers Ave., Suite 245
N. Charleston SC 29406-9643
Ph. (843) 573-7140

Drawn By: L. DiAsio

Dwg Date: JUNE 2012

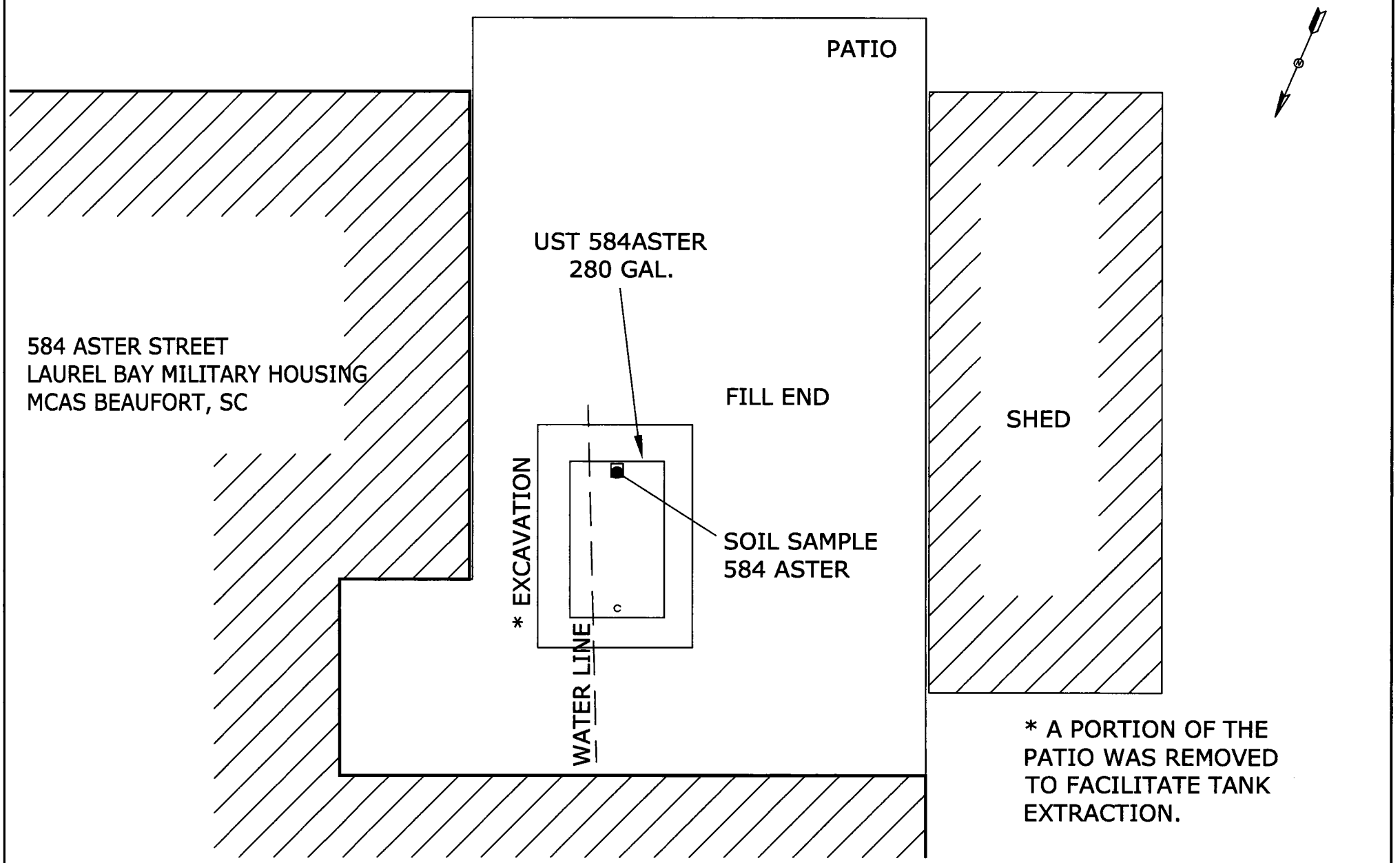
FIGURE 1: LOCATION MAP
584 ASTER STREET
LAUREL BAY, BEAUFORT SC




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

FIGURE 2 SITE MAP
584 ASTER STREET, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE JUNE 2012




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

FIGURE 3 UST SAMPLE LOCATIONS
584 ASTER STREET, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC | DWG DATE JUNE 2012

Picture 1: Location of UST 584Aster.


Picture 2: UST 584Aster 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 | 584Aster | | | | | | |
|---|---|---|---|---|---|---|---|
| **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 Road
Nashville, TN 37204
Tel: 800-765-0980

TestAmerica Job ID: NWE3044
Client Project/Site: [none]
Client Project Description: Laurel Bay Housing Project

For:
EEG - Small Business Group, Inc. (2449)
10179 Highway 78
Ladson, SC 29456

Attn: Tom McElwee

*Authorized for release by:*
*6/4/2012 5:23:48 PM*

Ken A. Hayes
Senior Project Manager
ken.hayes@testamericainc.com

# Table of Contents

# Sample Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| NWE3044-01 | 584 Aster | Soil | 05/22/12 14:45 | 05/26/12 08:30 |
| NWE3044-02 | 1267 Dove | Soil | 05/23/12 15:15 | 05/26/12 08:30 |
| NWE3044-03 | 900 Barracuda | Soil | 05/24/12 13:45 | 05/26/12 08:30 |

# Definitions/Glossary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

## Qualifiers

### GCMS Volatiles

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

### GCMS Semivolatiles

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| B | Analyte was detected in the associated Method Blank. |

## 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 |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| EDL | Estimated Detection Limit |
| EPA | United States Environmental Protection Agency |
| 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 |
| RL | Reporting Limit |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

# Client Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

**Client Sample ID: 584 Aster**
**Date Collected: 05/22/12 14:45**
**Date Received: 05/26/12 08:30**

**Lab Sample ID: NWE3044-01**
**Matrix: Soil**
**Percent Solids: 97.2**

## Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00213 | 0.00117 | mg/kg dry | ☼ | 05/22/12 14:45 | 05/28/12 19:40 | 1.00 |
| Ethylbenzene | ND | | 0.00213 | 0.00117 | mg/kg dry | ☼ | 05/22/12 14:45 | 05/28/12 19:40 | 1.00 |
| Naphthalene | ND | | 0.00534 | 0.00267 | mg/kg dry | ☼ | 05/22/12 14:45 | 05/28/12 19:40 | 1.00 |
| Toluene | ND | | 0.00213 | 0.00117 | mg/kg dry | ☼ | 05/22/12 14:45 | 05/28/12 19:40 | 1.00 |
| Xylenes, total | ND | | 0.00534 | 0.00267 | mg/kg dry | ☼ | 05/22/12 14:45 | 05/28/12 19:40 | 1.00 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4* | *119* | | *70 - 130* | *05/22/12 14:45* | *05/28/12 19:40* | *1.00* |
| *Dibromofluoromethane* | *114* | | *70 - 130* | *05/22/12 14:45* | *05/28/12 19:40* | *1.00* |
| *Toluene-d8* | *102* | | *70 - 130* | *05/22/12 14:45* | *05/28/12 19:40* | *1.00* |
| *4-Bromofluorobenzene* | *108* | | *70 - 130* | *05/22/12 14:45* | *05/28/12 19:40* | *1.00* |

## Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Acenaphthylene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Anthracene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Benzo (a) anthracene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Benzo (a) pyrene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Benzo (b) fluoranthene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Benzo (g,h,i) perylene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Benzo (k) fluoranthene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Chrysene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Dibenz (a,h) anthracene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Fluoranthene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Fluorene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Indeno (1,2,3-cd) pyrene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Naphthalene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Phenanthrene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| Pyrene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| 1-Methylnaphthalene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |
| 2-Methylnaphthalene | ND | | 0.0682 | 0.0346 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 22:49 | 1.00 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Terphenyl-d14* | *84* | | *18 - 120* | *06/01/12 10:53* | *06/02/12 22:49* | *1.00* |
| *2-Fluorobiphenyl* | *64* | | *14 - 120* | *06/01/12 10:53* | *06/02/12 22:49* | *1.00* |
| *Nitrobenzene-d5* | *61* | | *17 - 120* | *06/01/12 10:53* | *06/02/12 22:49* | *1.00* |

## Method: SW-846 - General Chemistry Parameters

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| % Dry Solids | 97.2 | | 0.500 | 0.500 | % | | 05/26/12 14:30 | 05/29/12 08:19 | 1.00 |

# Client Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

## Client Sample ID: 1267 Dove

**Date Collected: 05/23/12 15:15**
**Date Received: 05/26/12 08:30**

## Lab Sample ID: NWE3044-02

**Matrix: Soil**
**Percent Solids: 96.6**

### Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00224 | 0.00123 | mg/kg dry | ☼ | 05/23/12 15:15 | 05/28/12 20:13 | 1.00 |
| Ethylbenzene | ND | | 0.00224 | 0.00123 | mg/kg dry | ☼ | 05/23/12 15:15 | 05/28/12 20:13 | 1.00 |
| Naphthalene | ND | | 0.00560 | 0.00280 | mg/kg dry | ☼ | 05/23/12 15:15 | 05/28/12 20:13 | 1.00 |
| Toluene | ND | | 0.00224 | 0.00123 | mg/kg dry | ☼ | 05/23/12 15:15 | 05/28/12 20:13 | 1.00 |
| **Xylenes, total** | **0.00406** | **J** | 0.00560 | 0.00280 | mg/kg dry | ☼ | 05/23/12 15:15 | 05/28/12 20:13 | 1.00 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4* | *119* | | *70 - 130* | *05/23/12 15:15* | *05/28/12 20:13* | *1.00* |
| *Dibromofluoromethane* | *112* | | *70 - 130* | *05/23/12 15:15* | *05/28/12 20:13* | *1.00* |
| *Toluene-d8* | *102* | | *70 - 130* | *05/23/12 15:15* | *05/28/12 20:13* | *1.00* |
| *4-Bromofluorobenzene* | *109* | | *70 - 130* | *05/23/12 15:15* | *05/28/12 20:13* | *1.00* |

### Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Acenaphthylene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Anthracene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Benzo (a) anthracene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Benzo (a) pyrene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Benzo (b) fluoranthene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| **Benzo (g,h,i) perylene** | **0.0666** | **J B** | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Benzo (k) fluoranthene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Chrysene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Dibenz (a,h) anthracene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Fluoranthene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Fluorene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Indeno (1,2,3-cd) pyrene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Naphthalene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Phenanthrene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| Pyrene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| 1-Methylnaphthalene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |
| 2-Methylnaphthalene | ND | | 0.0680 | 0.0345 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:09 | 1.00 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Terphenyl-d14* | *77* | | *18 - 120* | *06/01/12 10:53* | *06/02/12 23:09* | *1.00* |
| *2-Fluorobiphenyl* | *59* | | *14 - 120* | *06/01/12 10:53* | *06/02/12 23:09* | *1.00* |
| *Nitrobenzene-d5* | *58* | | *17 - 120* | *06/01/12 10:53* | *06/02/12 23:09* | *1.00* |

### Method: SW-846 - General Chemistry Parameters

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **% Dry Solids** | **96.6** | | 0.500 | 0.500 | % | | 05/26/12 14:30 | 05/29/12 08:19 | 1.00 |

# Client Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

**Client Sample ID: 900 Barracuda**
**Date Collected: 05/24/12 13:45**
**Date Received: 05/26/12 08:30**

**Lab Sample ID: NWE3044-03**
**Matrix: Soil**
**Percent Solids: 95.6**

## Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00226 | 0.00124 | mg/kg dry | ☼ | 05/24/12 13:45 | 05/28/12 20:45 | 1.00 |
| Ethylbenzene | ND | | 0.00226 | 0.00124 | mg/kg dry | ☼ | 05/24/12 13:45 | 05/28/12 20:45 | 1.00 |
| Naphthalene | ND | | 0.00565 | 0.00282 | mg/kg dry | ☼ | 05/24/12 13:45 | 05/28/12 20:45 | 1.00 |
| Toluene | ND | | 0.00226 | 0.00124 | mg/kg dry | ☼ | 05/24/12 13:45 | 05/28/12 20:45 | 1.00 |
| Xylenes, total | ND | | 0.00565 | 0.00282 | mg/kg dry | ☼ | 05/24/12 13:45 | 05/28/12 20:45 | 1.00 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4* | *117* | | *70 - 130* | *05/24/12 13:45* | *05/28/12 20:45* | *1.00* |
| *Dibromofluoromethane* | *111* | | *70 - 130* | *05/24/12 13:45* | *05/28/12 20:45* | *1.00* |
| *Toluene-d8* | *101* | | *70 - 130* | *05/24/12 13:45* | *05/28/12 20:45* | *1.00* |
| *4-Bromofluorobenzene* | *107* | | *70 - 130* | *05/24/12 13:45* | *05/28/12 20:45* | *1.00* |

## Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Acenaphthylene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Anthracene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Benzo (a) anthracene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Benzo (a) pyrene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Benzo (b) fluoranthene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Benzo (g,h,i) perylene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Benzo (k) fluoranthene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Chrysene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Dibenz (a,h) anthracene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Fluoranthene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Fluorene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Indeno (1,2,3-cd) pyrene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Naphthalene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Phenanthrene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| Pyrene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| 1-Methylnaphthalene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |
| 2-Methylnaphthalene | ND | | 0.0695 | 0.0353 | mg/kg dry | ☼ | 06/01/12 10:53 | 06/02/12 23:30 | 1.00 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Terphenyl-d14* | *84* | | *18 - 120* | *06/01/12 10:53* | *06/02/12 23:30* | *1.00* |
| *2-Fluorobiphenyl* | *64* | | *14 - 120* | *06/01/12 10:53* | *06/02/12 23:30* | *1.00* |
| *Nitrobenzene-d5* | *64* | | *17 - 120* | *06/01/12 10:53* | *06/02/12 23:30* | *1.00* |

## Method: SW-846 - General Chemistry Parameters

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| % Dry Solids | 95.6 | | 0.500 | 0.500 | % | | 05/26/12 14:30 | 05/29/12 08:19 | 1.00 |

## Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

**Lab Sample ID: 12E5605-BLK1**
**Matrix: Soil**
**Analysis Batch: V009004**

**Client Sample ID: Method Blank**
**Prep Type: Total**
**Prep Batch: 12E5605_P**

| Analyte | Blank Result | Blank Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.00200 | 0.00110 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:15 | 1.00 |
| Ethylbenzene | ND | | 0.00200 | 0.00110 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:15 | 1.00 |
| Naphthalene | ND | | 0.00500 | 0.00250 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:15 | 1.00 |
| Toluene | ND | | 0.00200 | 0.00110 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:15 | 1.00 |
| Xylenes, total | ND | | 0.00500 | 0.00250 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:15 | 1.00 |

| *Surrogate* | *Blank %Recovery* | *Blank Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4* | *116* | | *70 - 130* | *05/28/12 11:34* | *05/28/12 14:15* | *1.00* |
| *Dibromofluoromethane* | *109* | | *70 - 130* | *05/28/12 11:34* | *05/28/12 14:15* | *1.00* |
| *Toluene-d8* | *106* | | *70 - 130* | *05/28/12 11:34* | *05/28/12 14:15* | *1.00* |
| *4-Bromofluorobenzene* | *107* | | *70 - 130* | *05/28/12 11:34* | *05/28/12 14:15* | *1.00* |

**Lab Sample ID: 12E5605-BLK2**
**Matrix: Soil**
**Analysis Batch: V009004**

**Client Sample ID: Method Blank**
**Prep Type: Total**
**Prep Batch: 12E5605_P**

| Analyte | Blank Result | Blank Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | ND | | 0.100 | 0.0550 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:48 | 50.0 |
| Ethylbenzene | ND | | 0.100 | 0.0550 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:48 | 50.0 |
| Naphthalene | ND | | 0.250 | 0.125 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:48 | 50.0 |
| Toluene | ND | | 0.100 | 0.0550 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:48 | 50.0 |
| Xylenes, total | ND | | 0.250 | 0.125 | mg/kg wet | | 05/28/12 11:34 | 05/28/12 14:48 | 50.0 |

| *Surrogate* | *Blank %Recovery* | *Blank Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4* | *118* | | *70 - 130* | *05/28/12 11:34* | *05/28/12 14:48* | *50.0* |
| *Dibromofluoromethane* | *111* | | *70 - 130* | *05/28/12 11:34* | *05/28/12 14:48* | *50.0* |
| *Toluene-d8* | *104* | | *70 - 130* | *05/28/12 11:34* | *05/28/12 14:48* | *50.0* |
| *4-Bromofluorobenzene* | *106* | | *70 - 130* | *05/28/12 11:34* | *05/28/12 14:48* | *50.0* |

**Lab Sample ID: 12E5605-BS1**
**Matrix: Soil**
**Analysis Batch: V009004**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total**
**Prep Batch: 12E5605_P**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzene | 50.0 | 48.5 | | ug/kg | | 97 | 75 - 127 |
| Ethylbenzene | 50.0 | 48.6 | | ug/kg | | 97 | 80 - 134 |
| Naphthalene | 50.0 | 60.4 | | ug/kg | | 121 | 69 - 150 |
| Toluene | 50.0 | 48.8 | | ug/kg | | 98 | 80 - 132 |
| Xylenes, total | 150 | 143 | | ug/kg | | 95 | 80 - 137 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4* | *114* | | *70 - 130* |
| *Dibromofluoromethane* | *111* | | *70 - 130* |
| *Toluene-d8* | *103* | | *70 - 130* |
| *4-Bromofluorobenzene* | *108* | | *70 - 130* |

## Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

**Lab Sample ID: 12E5605-BSD1**
**Matrix: Soil**
**Analysis Batch: V009004**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total**
**Prep Batch: 12E5605_P**

| Analyte | Spike Added | LCS Dup Result | LCS Dup Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 50.0 | 44.8 | | ug/kg | | 90 | 75 - 127 | 8 | 50 |
| Ethylbenzene | 50.0 | 45.1 | | ug/kg | | 90 | 80 - 134 | 8 | 50 |
| Naphthalene | 50.0 | 57.5 | | ug/kg | | 115 | 69 - 150 | 5 | 50 |
| Toluene | 50.0 | 44.5 | | ug/kg | | 89 | 80 - 132 | 9 | 50 |
| Xylenes, total | 150 | 133 | | ug/kg | | 89 | 80 - 137 | 7 | 50 |

| *Surrogate* | *LCS Dup %Recovery* | *LCS Dup Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4* | *116* | | *70 - 130* |
| *Dibromofluoromethane* | *111* | | *70 - 130* |
| *Toluene-d8* | *103* | | *70 - 130* |
| *4-Bromofluorobenzene* | *105* | | *70 - 130* |

**Lab Sample ID: 12E5605-MS1**
**Matrix: Soil**
**Analysis Batch: V009004**

**Client Sample ID: Matrix Spike**
**Prep Type: Total**
**Prep Batch: 12E5605_P**

| Analyte | Sample Result | Sample Qualifier | Spike Added | Matrix Spike Result | Matrix Spike Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.00113 | | 0.0517 | 0.0482 | | mg/kg dry | ☼ | 91 | 31 - 143 |
| Ethylbenzene | 0.00754 | | 0.0517 | 0.0499 | | mg/kg dry | ☼ | 82 | 23 - 161 |
| Naphthalene | 0.00361 | | 0.0517 | 0.0488 | | mg/kg dry | ☼ | 87 | 10 - 176 |
| Toluene | 0.00680 | | 0.0517 | 0.0568 | | mg/kg dry | ☼ | 97 | 30 - 155 |
| Xylenes, total | 0.0434 | | 0.155 | 0.150 | | mg/kg dry | ☼ | 69 | 25 - 162 |

| *Surrogate* | *Matrix Spike %Recovery* | *Matrix Spike Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4* | *115* | | *70 - 130* |
| *Dibromofluoromethane* | *111* | | *70 - 130* |
| *Toluene-d8* | *102* | | *70 - 130* |
| *4-Bromofluorobenzene* | *112* | | *70 - 130* |

**Lab Sample ID: 12E5605-MSD1**
**Matrix: Soil**
**Analysis Batch: V009004**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total**
**Prep Batch: 12E5605_P**

| Analyte | Sample Result | Sample Qualifier | Spike Added | trix Spike Dup Result | Matrix Spike Du Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 0.00113 | | 0.0515 | 0.0455 | | mg/kg dry | ☼ | 86 | 31 - 143 | 6 | 50 |
| Ethylbenzene | 0.00754 | | 0.0515 | 0.0475 | | mg/kg dry | ☼ | 78 | 23 - 161 | 5 | 50 |
| Naphthalene | 0.00361 | | 0.0515 | 0.0487 | | mg/kg dry | ☼ | 88 | 10 - 176 | 0.3 | 50 |
| Toluene | 0.00680 | | 0.0515 | 0.0472 | | mg/kg dry | ☼ | 79 | 30 - 155 | 18 | 50 |
| Xylenes, total | 0.0434 | | 0.154 | 0.142 | | mg/kg dry | ☼ | 64 | 25 - 162 | 6 | 50 |

| *Surrogate* | *Matrix Spike Dup %Recovery* | *Matrix Spike Dup Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4* | *117* | | *70 - 130* |
| *Dibromofluoromethane* | *112* | | *70 - 130* |
| *Toluene-d8* | *101* | | *70 - 130* |
| *4-Bromofluorobenzene* | *110* | | *70 - 130* |

## Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

**Lab Sample ID: 12E6300-BLK1**
**Matrix: Soil**
**Analysis Batch: 12E6300**

**Client Sample ID: Method Blank**
**Prep Type: Total**
**Prep Batch: 12E6300_P**

| Analyte | Blank Result | Blank Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Acenaphthylene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Anthracene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Benzo (a) anthracene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Benzo (a) pyrene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Benzo (b) fluoranthene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Benzo (g,h,i) perylene | 0.0497 | J | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Benzo (k) fluoranthene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Chrysene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Dibenz (a,h) anthracene | 0.0470 | J | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Fluoranthene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Fluorene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Indeno (1,2,3-cd) pyrene | 0.0433 | J | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Naphthalene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Phenanthrene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| Pyrene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| 1-Methylnaphthalene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |
| 2-Methylnaphthalene | ND | | 0.0670 | 0.0340 | mg/kg wet | | 06/01/12 10:53 | 06/03/12 14:44 | 1.00 |

| *Surrogate* | *Blank %Recovery* | *Blank Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Terphenyl-d14* | *69* | | *18 - 120* | *06/01/12 10:53* | *06/03/12 14:44* | *1.00* |
| *2-Fluorobiphenyl* | *55* | | *14 - 120* | *06/01/12 10:53* | *06/03/12 14:44* | *1.00* |
| *Nitrobenzene-d5* | *55* | | *17 - 120* | *06/01/12 10:53* | *06/03/12 14:44* | *1.00* |

**Lab Sample ID: 12E6300-BS1**
**Matrix: Soil**
**Analysis Batch: 12E6300**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total**
**Prep Batch: 12E6300_P**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Acenaphthene | 1.67 | 1.41 | | mg/kg wet | | 84 | 36 - 120 |
| Acenaphthylene | 1.67 | 1.49 | | mg/kg wet | | 90 | 38 - 120 |
| Anthracene | 1.67 | 1.49 | | mg/kg wet | | 89 | 46 - 124 |
| Benzo (a) anthracene | 1.67 | 1.48 | | mg/kg wet | | 89 | 45 - 120 |
| Benzo (a) pyrene | 1.67 | 1.60 | | mg/kg wet | | 96 | 45 - 120 |
| Benzo (b) fluoranthene | 1.67 | 1.53 | | mg/kg wet | | 92 | 42 - 120 |
| Benzo (g,h,i) perylene | 1.67 | 1.44 | B | mg/kg wet | | 87 | 38 - 120 |
| Benzo (k) fluoranthene | 1.67 | 1.45 | | mg/kg wet | | 87 | 42 - 120 |
| Chrysene | 1.67 | 1.42 | | mg/kg wet | | 85 | 43 - 120 |
| Dibenz (a,h) anthracene | 1.67 | 1.50 | B | mg/kg wet | | 90 | 32 - 128 |
| Fluoranthene | 1.67 | 1.48 | | mg/kg wet | | 89 | 46 - 120 |
| Fluorene | 1.67 | 1.50 | | mg/kg wet | | 90 | 42 - 120 |
| Indeno (1,2,3-cd) pyrene | 1.67 | 1.47 | B | mg/kg wet | | 88 | 41 - 121 |
| Naphthalene | 1.67 | 1.50 | | mg/kg wet | | 90 | 32 - 120 |
| Phenanthrene | 1.67 | 1.46 | | mg/kg wet | | 88 | 45 - 120 |
| Pyrene | 1.67 | 1.47 | | mg/kg wet | | 88 | 43 - 120 |
| 1-Methylnaphthalene | 1.67 | 1.08 | | mg/kg wet | | 65 | 32 - 120 |
| 2-Methylnaphthalene | 1.67 | 1.44 | | mg/kg wet | | 86 | 28 - 120 |

## Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

**Lab Sample ID: 12E6300-BS1**
**Matrix: Soil**
**Analysis Batch: 12E6300**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total**
**Prep Batch: 12E6300_P**

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Terphenyl-d14* | *83* | | *18 - 120* |
| *2-Fluorobiphenyl* | *66* | | *14 - 120* |
| *Nitrobenzene-d5* | *65* | | *17 - 120* |

**Lab Sample ID: 12E6300-MS1**
**Matrix: Soil**
**Analysis Batch: 12E6300**

**Client Sample ID: Matrix Spike**
**Prep Type: Total**
**Prep Batch: 12E6300_P**

| Analyte | Sample Result | Sample Qualifier | Spike Added | Matrix Spike Result | Matrix Spike Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 1.97 | 1.73 | | mg/kg dry | ☼ | 88 | 19 - 120 |
| Acenaphthylene | ND | | 1.97 | 1.85 | | mg/kg dry | ☼ | 94 | 25 - 120 |
| Anthracene | ND | | 1.97 | 1.79 | | mg/kg dry | ☼ | 91 | 28 - 125 |
| Benzo (a) anthracene | ND | | 1.97 | 1.95 | | mg/kg dry | ☼ | 99 | 23 - 120 |
| Benzo (a) pyrene | ND | | 1.97 | 1.98 | | mg/kg dry | ☼ | 100 | 15 - 128 |
| Benzo (b) fluoranthene | ND | | 1.97 | 1.89 | | mg/kg dry | ☼ | 96 | 12 - 133 |
| Benzo (g,h,i) perylene | ND | | 1.97 | 1.75 | B | mg/kg dry | ☼ | 89 | 22 - 120 |
| Benzo (k) fluoranthene | ND | | 1.97 | 1.76 | | mg/kg dry | ☼ | 89 | 28 - 120 |
| Chrysene | ND | | 1.97 | 1.82 | | mg/kg dry | ☼ | 92 | 20 - 120 |
| Dibenz (a,h) anthracene | ND | | 1.97 | 1.83 | B | mg/kg dry | ☼ | 93 | 12 - 128 |
| Fluoranthene | ND | | 1.97 | 1.78 | | mg/kg dry | ☼ | 90 | 10 - 143 |
| Fluorene | ND | | 1.97 | 1.86 | | mg/kg dry | ☼ | 94 | 20 - 120 |
| Indeno (1,2,3-cd) pyrene | ND | | 1.97 | 1.81 | B | mg/kg dry | ☼ | 92 | 22 - 121 |
| Naphthalene | ND | | 1.97 | 1.91 | | mg/kg dry | ☼ | 97 | 10 - 120 |
| Phenanthrene | ND | | 1.97 | 1.81 | | mg/kg dry | ☼ | 92 | 21 - 122 |
| Pyrene | ND | | 1.97 | 2.05 | | mg/kg dry | ☼ | 104 | 20 - 123 |
| 1-Methylnaphthalene | ND | | 1.97 | 1.39 | | mg/kg dry | ☼ | 71 | 10 - 120 |
| 2-Methylnaphthalene | ND | | 1.97 | 1.87 | | mg/kg dry | ☼ | 95 | 13 - 120 |

| *Surrogate* | *Matrix Spike %Recovery* | *Matrix Spike Qualifier* | *Limits* |
|---|---|---|---|
| *Terphenyl-d14* | *91* | | *18 - 120* |
| *2-Fluorobiphenyl* | *65* | | *14 - 120* |
| *Nitrobenzene-d5* | *61* | | *17 - 120* |

**Lab Sample ID: 12E6300-MSD1**
**Matrix: Soil**
**Analysis Batch: 12E6300**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total**
**Prep Batch: 12E6300_P**

| Analyte | Sample Result | Sample Qualifier | Spike Added | trix Spike Dup Result | Matrix Spike Du Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ND | | 1.94 | 1.45 | | mg/kg dry | ☼ | 75 | 19 - 120 | 17 | 50 |
| Acenaphthylene | ND | | 1.94 | 1.57 | | mg/kg dry | ☼ | 81 | 25 - 120 | 17 | 50 |
| Anthracene | ND | | 1.94 | 1.60 | | mg/kg dry | ☼ | 83 | 28 - 125 | 11 | 49 |
| Benzo (a) anthracene | ND | | 1.94 | 1.59 | | mg/kg dry | ☼ | 82 | 23 - 120 | 20 | 50 |
| Benzo (a) pyrene | ND | | 1.94 | 1.71 | | mg/kg dry | ☼ | 88 | 15 - 128 | 15 | 50 |
| Benzo (b) fluoranthene | ND | | 1.94 | 1.64 | | mg/kg dry | ☼ | 84 | 12 - 133 | 15 | 50 |
| Benzo (g,h,i) perylene | ND | | 1.94 | 1.51 | B | mg/kg dry | ☼ | 78 | 22 - 120 | 15 | 50 |
| Benzo (k) fluoranthene | ND | | 1.94 | 1.53 | | mg/kg dry | ☼ | 79 | 28 - 120 | 14 | 45 |
| Chrysene | ND | | 1.94 | 1.51 | | mg/kg dry | ☼ | 78 | 20 - 120 | 19 | 49 |
| Dibenz (a,h) anthracene | ND | | 1.94 | 1.58 | B | mg/kg dry | ☼ | 82 | 12 - 128 | 15 | 50 |
| Fluoranthene | ND | | 1.94 | 1.56 | | mg/kg dry | ☼ | 80 | 10 - 143 | 13 | 50 |

## Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

**Lab Sample ID: 12E6300-MSD1**
**Matrix: Soil**
**Analysis Batch: 12E6300**

**Client Sample ID: Matrix Spike Duplicate**
**Prep Type: Total**
**Prep Batch: 12E6300_P**

| Analyte | Sample Result | Sample Qualifier | Spike Added | ıtrix Spike Dup Result | Matrix Spike Duı Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluorene | ND | | 1.94 | 1.54 | | mg/kg dry | ☼ | 80 | 20 - 120 | 18 | 50 |
| Indeno (1,2,3-cd) pyrene | ND | | 1.94 | 1.54 | B | mg/kg dry | ☼ | 79 | 22 - 121 | 16 | 50 |
| Naphthalene | ND | | 1.94 | 1.57 | | mg/kg dry | ☼ | 81 | 10 - 120 | 20 | 50 |
| Phenanthrene | ND | | 1.94 | 1.54 | | mg/kg dry | ☼ | 79 | 21 - 122 | 16 | 50 |
| Pyrene | ND | | 1.94 | 1.63 | | mg/kg dry | ☼ | 84 | 20 - 123 | 23 | 50 |
| 1-Methylnaphthalene | ND | | 1.94 | 1.12 | | mg/kg dry | ☼ | 58 | 10 - 120 | 22 | 50 |
| 2-Methylnaphthalene | ND | | 1.94 | 1.50 | | mg/kg dry | ☼ | 77 | 13 - 120 | 22 | 50 |

| *Surrogate* | *Matrix Spike Dup %Recovery* | *Matrix Spike Dup Qualifier* | *Limits* |
|---|---|---|---|
| *Terphenyl-d14* | *78* | | *18 - 120* |
| *2-Fluorobiphenyl* | *58* | | *14 - 120* |
| *Nitrobenzene-d5* | *54* | | *17 - 120* |

## Method: SW-846 - General Chemistry Parameters

**Lab Sample ID: 12E5891-DUP1**
**Matrix: Soil**
**Analysis Batch: 12E5891**

**Client Sample ID: Duplicate**
**Prep Type: Total**
**Prep Batch: 12E5891_P**

| Analyte | Sample Result | Sample Qualifier | Duplicate Result | Duplicate Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| % Dry Solids | 77.3 | | 80.1 | | % | | 4 | 20 |

# QC Association Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

## GCMS Volatiles

### Analysis Batch: V009004

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 12E5605-BLK1 | Method Blank | Total | Soil | SW846 8260B | 12E5605_P |
| 12E5605-BLK2 | Method Blank | Total | Soil | SW846 8260B | 12E5605_P |
| 12E5605-BS1 | Lab Control Sample | Total | Soil | SW846 8260B | 12E5605_P |
| 12E5605-BSD1 | Lab Control Sample Dup | Total | Soil | SW846 8260B | 12E5605_P |
| 12E5605-MS1 | Matrix Spike | Total | Soil | SW846 8260B | 12E5605_P |
| 12E5605-MSD1 | Matrix Spike Duplicate | Total | Soil | SW846 8260B | 12E5605_P |
| NWE3044-01 | 584 Aster | Total | Soil | SW846 8260B | 12E5605_P |
| NWE3044-02 | 1267 Dove | Total | Soil | SW846 8260B | 12E5605_P |
| NWE3044-03 | 900 Barracuda | Total | Soil | SW846 8260B | 12E5605_P |

### Prep Batch: 12E5605_P

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 12E5605-BLK1 | Method Blank | Total | Soil | EPA 5035 | |
| 12E5605-BLK2 | Method Blank | Total | Soil | EPA 5035 | |
| 12E5605-BS1 | Lab Control Sample | Total | Soil | EPA 5035 | |
| 12E5605-BSD1 | Lab Control Sample Dup | Total | Soil | EPA 5035 | |
| 12E5605-MS1 | Matrix Spike | Total | Soil | EPA 5035 | |
| 12E5605-MSD1 | Matrix Spike Duplicate | Total | Soil | EPA 5035 | |
| NWE3044-01 | 584 Aster | Total | Soil | EPA 5035 | |
| NWE3044-02 | 1267 Dove | Total | Soil | EPA 5035 | |
| NWE3044-03 | 900 Barracuda | Total | Soil | EPA 5035 | |

## GCMS Semivolatiles

### Analysis Batch: 12E6300

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 12E6300-BLK1 | Method Blank | Total | Soil | SW846 8270D | 12E6300_P |
| 12E6300-BS1 | Lab Control Sample | Total | Soil | SW846 8270D | 12E6300_P |
| 12E6300-MS1 | Matrix Spike | Total | Soil | SW846 8270D | 12E6300_P |
| 12E6300-MSD1 | Matrix Spike Duplicate | Total | Soil | SW846 8270D | 12E6300_P |
| NWE3044-01 | 584 Aster | Total | Soil | SW846 8270D | 12E6300_P |
| NWE3044-02 | 1267 Dove | Total | Soil | SW846 8270D | 12E6300_P |
| NWE3044-03 | 900 Barracuda | Total | Soil | SW846 8270D | 12E6300_P |

### Prep Batch: 12E6300_P

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 12E6300-BLK1 | Method Blank | Total | Soil | EPA 3550C | |
| 12E6300-BS1 | Lab Control Sample | Total | Soil | EPA 3550C | |
| 12E6300-MS1 | Matrix Spike | Total | Soil | EPA 3550C | |
| 12E6300-MSD1 | Matrix Spike Duplicate | Total | Soil | EPA 3550C | |
| NWE3044-01 | 584 Aster | Total | Soil | EPA 3550C | |
| NWE3044-02 | 1267 Dove | Total | Soil | EPA 3550C | |
| NWE3044-03 | 900 Barracuda | Total | Soil | EPA 3550C | |

## Extractions

### Analysis Batch: 12E5891

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 12E5891-DUP1 | Duplicate | Total | Soil | SW-846 | 12E5891_P |
| NWE3044-01 | 584 Aster | Total | Soil | SW-846 | 12E5891_P |
| NWE3044-02 | 1267 Dove | Total | Soil | SW-846 | 12E5891_P |
| NWE3044-03 | 900 Barracuda | Total | Soil | SW-846 | 12E5891_P |

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

## Extractions (Continued)

### Prep Batch: 12E5891_P

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 12E5891-DUP1 | Duplicate | Total | Soil | % Solids | |
| NWE3044-01 | 584 Aster | Total | Soil | % Solids | |
| NWE3044-02 | 1267 Dove | Total | Soil | % Solids | |
| NWE3044-03 | 900 Barracuda | Total | Soil | % Solids | |

# Lab Chronicle

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

## Client Sample ID: 584 Aster

**Lab Sample ID: NWE3044-01**

**Date Collected: 05/22/12 14:45**
**Matrix: Soil**
**Date Received: 05/26/12 08:30**
**Percent Solids: 97.2**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total | Prep | EPA 5035 | | 1.04 | 12E5605_P | 05/22/12 14:45 | AAN | TAL NSH |
| Total | Analysis | SW846 8260B | | 1.00 | V009004 | 05/28/12 19:40 | KKK H | TAL NSH |
| Total | Prep | EPA 3550C | | 0.989 | 12E6300_P | 06/01/12 10:53 | JJR | TAL NSH |
| Total | Analysis | SW846 8270D | | 1.00 | 12E6300 | 06/02/12 22:49 | WLL | TAL NSH |
| Total | Prep | % Solids | | 1.00 | 12E5891_P | 05/26/12 14:30 | JXM | TAL NSH |
| Total | Analysis | SW-846 | | 1.00 | 12E5891 | 05/29/12 08:19 | KDJ | TAL NSH |

## Client Sample ID: 1267 Dove

**Lab Sample ID: NWE3044-02**

**Date Collected: 05/23/12 15:15**
**Matrix: Soil**
**Date Received: 05/26/12 08:30**
**Percent Solids: 96.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total | Prep | EPA 5035 | | 1.08 | 12E5605_P | 05/23/12 15:15 | AAN | TAL NSH |
| Total | Analysis | SW846 8260B | | 1.00 | V009004 | 05/28/12 20:13 | KKK H | TAL NSH |
| Total | Prep | EPA 3550C | | 0.980 | 12E6300_P | 06/01/12 10:53 | JJR | TAL NSH |
| Total | Analysis | SW846 8270D | | 1.00 | 12E6300 | 06/02/12 23:09 | WLL | TAL NSH |
| Total | Prep | % Solids | | 1.00 | 12E5891_P | 05/26/12 14:30 | JXM | TAL NSH |
| Total | Analysis | SW-846 | | 1.00 | 12E5891 | 05/29/12 08:19 | KDJ | TAL NSH |

## Client Sample ID: 900 Barracuda

**Lab Sample ID: NWE3044-03**

**Date Collected: 05/24/12 13:45**
**Matrix: Soil**
**Date Received: 05/26/12 08:30**
**Percent Solids: 95.6**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total | Prep | EPA 5035 | | 1.08 | 12E5605_P | 05/24/12 13:45 | AAN | TAL NSH |
| Total | Analysis | SW846 8260B | | 1.00 | V009004 | 05/28/12 20:45 | KKK H | TAL NSH |
| Total | Prep | EPA 3550C | | 0.992 | 12E6300_P | 06/01/12 10:53 | JJR | TAL NSH |
| Total | Analysis | SW846 8270D | | 1.00 | 12E6300 | 06/02/12 23:30 | WLL | TAL NSH |
| Total | Prep | % Solids | | 1.00 | 12E5891_P | 05/26/12 14:30 | JXM | TAL NSH |
| Total | Analysis | SW-846 | | 1.00 | 12E5891 | 05/29/12 08:19 | KDJ | TAL NSH |

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

# Method Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| SW-846 | General Chemistry Parameters | | TAL NSH |
| SW846 8260B | Volatile Organic Compounds by EPA Method 8260B | | TAL NSH |
| SW846 8270D | Polyaromatic Hydrocarbons by EPA 8270D | | TAL NSH |

**Protocol References:**

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

# Certification Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE3044

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---|---|---|---|---|
| TestAmerica Nashville | | ACIL | | 393 |
| TestAmerica Nashville | A2LA | ISO/IEC 17025 | | 0453.07 |
| TestAmerica Nashville | Alabama | State Program | 4 | 41150 |
| TestAmerica Nashville | Alaska (UST) | State Program | 10 | UST-087 |
| TestAmerica Nashville | Arizona | State Program | 9 | AZ0473 |
| TestAmerica Nashville | Arkansas DEQ | State Program | 6 | 88-0737 |
| TestAmerica Nashville | California | NELAC | 9 | 1168CA |
| TestAmerica Nashville | Canadian Assoc Lab Accred (CALA) | Canada | | 3744 |
| TestAmerica Nashville | Colorado | State Program | 8 | N/A |
| TestAmerica Nashville | Connecticut | State Program | 1 | PH-0220 |
| TestAmerica Nashville | Florida | NELAC | 4 | E87358 |
| TestAmerica Nashville | Illinois | NELAC | 5 | 200010 |
| TestAmerica Nashville | Iowa | State Program | 7 | 131 |
| TestAmerica Nashville | Kansas | NELAC | 7 | E-10229 |
| TestAmerica Nashville | Kentucky | State Program | 4 | 90038 |
| TestAmerica Nashville | Kentucky (UST) | State Program | 4 | 19 |
| TestAmerica Nashville | Louisiana | NELAC | 6 | 30613 |
| TestAmerica Nashville | Louisiana | NELAC | 6 | LA110014 |
| TestAmerica Nashville | Maryland | State Program | 3 | 316 |
| TestAmerica Nashville | Massachusetts | State Program | 1 | M-TN032 |
| TestAmerica Nashville | Minnesota | NELAC | 5 | 047-999-345 |
| TestAmerica Nashville | Mississippi | State Program | 4 | N/A |
| TestAmerica Nashville | Montana (UST) | State Program | 8 | NA |
| TestAmerica Nashville | New Hampshire | NELAC | 1 | 2963 |
| TestAmerica Nashville | New Jersey | NELAC | 2 | TN965 |
| TestAmerica Nashville | New York | NELAC | 2 | 11342 |
| TestAmerica Nashville | North Carolina DENR | State Program | 4 | 387 |
| TestAmerica Nashville | North Dakota | State Program | 8 | R-146 |
| TestAmerica Nashville | Ohio VAP | State Program | 5 | CL0033 |
| TestAmerica Nashville | Oklahoma | State Program | 6 | 9412 |
| TestAmerica Nashville | Oregon | NELAC | 10 | TN200001 |
| TestAmerica Nashville | Pennsylvania | NELAC | 3 | 68-00585 |
| TestAmerica Nashville | Rhode Island | State Program | 1 | LAO00268 |
| TestAmerica Nashville | South Carolina | State Program | 4 | 84009 |
| TestAmerica Nashville | South Carolina | State Program | 4 | 84009 |
| TestAmerica Nashville | Tennessee | State Program | 4 | 2008 |
| TestAmerica Nashville | Texas | NELAC | 6 | T104704077-09-TX |
| TestAmerica Nashville | USDA | Federal | | S-48469 |
| TestAmerica Nashville | Utah | NELAC | 8 | TAN |
| TestAmerica Nashville | Virginia | NELAC | 3 | 460152 |
| TestAmerica Nashville | Virginia | State Program | 3 | 00323 |
| TestAmerica Nashville | Washington | State Program | 10 | C789 |
| TestAmerica Nashville | West Virginia DEP | State Program | 3 | 219 |
| TestAmerica Nashville | Wisconsin | State Program | 5 | 998020430 |
| TestAmerica Nashville | Wyoming (UST) | A2LA | 8 | 453.07 |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

**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

**Site State:** SC

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

**PO#:** 1063

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

**TA Quote #:**

**Sampler Name: (Print)** Pratt Shaw

**Project ID:** Laurel Bay Housing Project

**Sampler Signature:**

**Project #:**

**NWE3044**
06/12/12 23:59

| Sample ID / Description | Date Sampled | Time Sampled | No. of Containers Shipped | Grab | Composite | Field Filtered | Preservative: Ice | $HNO_3$ (Red Label) | $H_2SO_4$ (Green Label) Disulfate | NaOH ( Orange Label) | $H_2SO_4$ Plastic (Yellow Label) | $H_2SO_4$ Glass(Yellow Label) | None (Black Label) | Other ( Specify) Methanol | Matrix: Groundwater | Wastewater | Drinking Water | Sludge | Soil | Other (specify): | Analyze For: BTEX + Napth - 8260B | PAH - 8270D | | | | | | | | | RUSH TAT (Pre-Schedule) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 584 Aster | 5/22/12 | 1445 | 5 | X | | | | | 2 | | | | 2 | 1 | | | | | X | | X | X | | | | | NWE3044- | 01 | | |
| 1267 Dover | 5/23/12 | 1515 | 5 | X | | | | | 2 | | | | 2 | 1 | | | | | X | | X | X | | | | | | 02 | | |
| 900 Barracuda | 5/24/12 | 1345 | 5 | X | | | | | 2 | | | | 2 | 1 | | | | | X | | X | X | | | | | | 03 | | |

**Special Instructions:**

**Method of Shipment:** FEDEX

| Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|
| | 5/25/12 | 1000 | FedEx | | |
| Relinquished by: | Date | Time | Received by TestAmerica: | Date | Time |
| | | | | 526.12 | 0830 |

**Laboratory Comments:**
Temperature Upon Receipt: 4.2c
VOCs Free of Headspace? Y

ATTACHMENT A

WASTE MANAGEMENT

# NON-HAZARDOUS MANIFEST

| NON-HAZARDOUS MANIFEST | 1. Generator's US EPA ID No. | Manifest Doc No. | 2. Page 1 of 1 | |
|---|---|---|---|---|

**GENERATOR**

| 3. Generator's Mailing Address: | Generator's Site Address (If different than mailing): | A. Manifest Number | |
|---|---|---|---|
| MCAS, BEAUFORT<br>LAUREL BAY HOUSING<br>BEAUFORT, SC 29907 | | WMNA | 00316837 |
| 4. Generator's Phone 843-228-6461 | | B. State Generator's ID | |

| 5. Transporter 1 Company Name | 6. US EPA ID Number | |
|---|---|---|
| EEG, INC. | | C. State Transporter's ID |
| | | D. Transporter's Phone 843-879-0411 |
| 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 | 10. US EPA ID Number | |
| HICKORY HILL LANDFILL<br>2621 LOW COUNTRY ROAD<br>RIDGELAND, SC 29936 | | G. State Facility ID |
| | | H. State Facility Phone 843-987-4643 |

| 11. Description of Waste Materials | 12. Containers No. | 12. Containers Type | 13. Total Quantity | 14. Unit Wt./Vol. | I. Misc. Comments |
|---|---|---|---|---|---|
| a. HEATING OIL TANKS 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
USTs from: 1) 396 ACORN - 2' 2) 584 ASTER' 3) 1267 DOVE' 4) 900 BARRACUDA' 5) 906 BARRACUDA' 6) 537 LAUREL BAY

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 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 |
|---|---|---|---|---|
| (D. C. Duke) | | 7 | 11 | 12 |

**TRANSPORTER**

| 17. Transporter 1 Acknowledgement of Receipt of Materials | | | | |
|---|---|---|---|---|
| Printed Name | Signature | Month | Day | Year |
| PRATT SHAW | | 7 | 11 | 12 |

| 18. Transporter 2 Acknowledgement of Receipt of Materials | | | | |
|---|---|---|---|---|
| Printed Name | Signature | Month | Day | Year |
| JAMES BALDWIN | James Baldwin | 7 | 11 | 12 |

**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 |
|---|---|---|---|---|
| Toni Cofield | Toni Cofield | 7 | 11 | 12 |

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**

CDM - AECOM
Multimedia Joint Venture