**SUMMARY REPORT**
**711 WEST CARDINAL LANE (FORMERLY 1468 WEST CARDINAL 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**

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**Norfolk, Virginia 23511-3095**

**Prepared by:**

**CDM - AECOM Multimedia Joint Venture**
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**Fairfax, Virginia 22030**

**Contract Number: N62470-14-D-9016**
**CTO WE52**
**JUNE 2021**

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## List of Acronyms

| | |
|---|---|
| bgs | below ground surface |
| BTEX | benzene, toluene, ethylbenzene, and xylenes |
| CTO | Contract Task Order |
| COPC | constituents of potential concern |
| ft | feet |
| 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 |
| PPV | Public-Private Venture |
| 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 |
| UFP SAP | Uniform Federal Policy Sampling and Analysis Plan |
| USEPA | United States Environmental Protection Agency |
| 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 711 West Cardinal Lane (Formerly 1468 West Cardinal 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.

In 2015, the Public-Private Venture (PPV) responsible for the management of the residential area at LBMH initiated a plan to replace outdated homes in the LBMH area. The plan includes the demolition of existing homes and subsequent construction of new homes. In discussions with the PPV it was revealed that construction of the new homes could occur on portions of the property where the USTs were formerly located. In response to this plan, MCAS Beaufort assessed subsurface soil gas concentrations in the area of the former USTs at select properties within the demolition areas. The subject property of this report is one of the properties within the planned demolition area which was selected for a soil gas evaluation. It should be noted that the house at the subject property has since been demolished and this property is an empty lot. There are no current plans for construction in this 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. A multi-media investigation selection process tree, applicable to the LBMH UST investigations, is presented as Appendix A.

In accordance with the multi-media investigation selection process (Appendix A), groundwater analytical results are typically compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion into existing homes and the necessity for an investigation associated with this media. However, as previously stated, this property did not have an existing home and instead was among those selected for an evaluation of soil gas because of the planned demolition and construction activities.

## 2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane). The sampling activities at 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) comprised a soil investigation, IGWA sampling, and a soil gas investigation. Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1468 West Cardinal Lane* (MCAS Beaufort, 2007). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Investigation of Groundwater at Leaking Heating Oil UST Sites* (Pandey Environmental, 2008). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C. Details regarding the vapor intrusion investigation at this site are provided in the *Technical Memorandum – Soil Gas Sampling Results – October 2014* (Resolution Consultants, 2015). The laboratory report that includes the pertinent soil gas analytical results for this site is presented in Appendix D.

### 2.1 UST Removal and Soil Sampling

On August 16, 2006, a single 280 gallon heating oil UST was removed from 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane). The former UST location is indicated on the sketch in 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 5'0" bgs and a single soil sample was collected from that depth. An additional soil sample was collected from a side wall of the excavation. The samples were 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 and the side 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 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated November 2, 2007, SCDHEC requested an IGWA for 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix E.

## 2.3 Groundwater Sampling

On July 30, 2008, a temporary monitoring well was installed at 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on the sketch in the UST Assessment Report (Appendix B). Further details are provided in the *Investigation of Ground Water at Leaking Heating Oil UST Sites* (Pandey Environmental, 2008).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporarily installed monitoring well. Following well installation, groundwater samples were collected using screen point sampling methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary well was abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71 (SCDHEC, 2016). Field forms are provided in the *Investigation of Ground Water at Leaking Heating Oil UST Sites* (Pandey Environmental, 2008).

## 2.4 Groundwater Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 2. A copy of the laboratory analytical data report is included in Appendix C.

The groundwater results collected from 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

## 2.5 Soil Gas Sampling

On October 2, 2014, a temporary subsurface soil gas well was installed at 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) in accordance with the SCDHEC approved *Sampling and Analysis Plan for Vapor Media – LBMH, MCAS Beaufort* (Resolution Consultants, 2015). *Uniform Federal Policy Sampling and Analysis Plan (UFP SAP) for Vapor Media* (Resolution Consultants, 2015). Soil gas sampling was conducted at this property to assess the potential risk for vapor intrusion associated with the possible construction of a new home on top of former the UST location. The soil gas well was placed in the same general location as the former heating oil UST and the IGWA sample location. The former UST location is indicated on the sketch in the UST Assessment Report (Appendix B). Further details are provided in the *Technical Memorandum – Soil Gas Sampling Results – October 2014* (Resolution Consultants, 2015).

The sampling strategy for this phase of the investigation required a one-time sampling event of the soil gas well. The subsurface soil gas well at 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) was sampled on October 8, 2014. A soil gas sample was collected and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of soil gas sampling, the temporary well was abandoned in accordance with the *UFP SAP for Vapor Media* (Resolution Consultants, 2015). Field forms are provided in the *Technical Memorandum – Soil Gas Sampling Results – October 2014* (Resolution Consultants, 2015).

## 2.6 Soil Gas Analytical Results

A summary of the laboratory analytical results and USEPA (United States Environmental Protection Agency) VISLs is presented in Table 3. A copy of the laboratory analytical data report is included in Appendix D.

The soil gas results collected from 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) were below the USEPA VISLs, which indicated that subsurface soil gas was not impacted by

COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

## 3.0 PROPERTY STATUS

The house at 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) was demolished and the property is an empty lot. There are no current plans for construction in this area. Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane). The NFA determination for groundwater was obtained in a letter dated December 8, 2008. Based on the analytical results for soil gas, it was determined that there was not a vapor intrusion concern at this property and a recommendation was made for no additional vapor intrusion assessment activities. SCDHEC approved the no further vapor intrusion investigation recommendation for 711 West Cardinal Lane (Formerly 1468 West Cardinal Lane) in a letter dated March 10, 2015. SCDHEC's letters are provided in Appendix E.

## 4.0 REFERENCES

Marine Corps Air Station Beaufort, 2007. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1468 West Cardinal Lane, Laurel Bay Military Housing Area*, August 2007.

Pandey Environmental, LLC, 2008. *Investigation of Ground Water at Leaking Heating Oil UST Sites for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, November 2008.

Resolution Consultants, 2015. *Technical Memorandum – Soil Gas Sampling Results – October 2014 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, January 2015.

Resolution Consultants, 2015. *Uniform Federal Policy Sampling and Analysis Plan for Vapor Media, for Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, February 2015.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 2.0*, April 2013.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 3.0*, May 2015.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 3.1*, February 2016.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

United States Environmental Protection Agency, 2014. *USEPA OSWER Vapor Intrusion Assessment, Vapor Intrusion Screening Level Calculator, Version 3.3.1,* May 2014.

# Tables

**Table 1**
**Laboratory Analytical Results - Soil**
**711 West Cardinal Lane (Formerly 1468 West Cardinal Lane)**
**Laurel Bay Military Housing Area**
**Marine Corps Air Station Beaufort**
**Beaufort, South Carolina**

| Constituent | SCDHEC RBSLs [1] | Results Samples Collected 08/16/06 | |
|---|---|---|---|
| | | 1468 Cardinal 01 Bottom | 1468 Cardinal 02 Side |
| **Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)** | | | |
| Benzene | 0.007 | ND | ND |
| Ethylbenzene | 1.15 | **0.000458** | **0.000489** |
| Naphthalene | 0.036 | **0.00223** | ND |
| Toluene | 1.45 | **0.00264** | **0.000963** |
| Xylenes, Total | 14.5 | **0.00425** | **0.00592** |
| **Semivolatile Organic Compounds Analyzed by EPA Method 8270C (mg/kg)** | | | |
| Benzo(a)anthracene | 0.066 | **0.547** | ND |
| Benzo(b)fluoranthene | 0.066 | **0.283** | ND |
| Benzo(k)fluoranthene | 0.066 | **0.295** | ND |
| Chrysene | 0.066 | **0.769** | ND |
| Dibenz(a,h)anthracene | 0.066 | ND | ND |

**Notes:**
[1] South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 (SCDHEC, May 2001).
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 - milligrams per kilogram
ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The soil laboratory report is provided in Appendix B.
RBSL - Risk-Based Screening Level
SCDHEC - South Carolina Department Of Health and Environmental Control

**Table 2**
**Laboratory Analytical Results - Groundwater**
**711 West Cardinal Lane (Formerly 1468 West Cardinal Lane)**
**Laurel Bay Military Housing Area**
**Marine Corps Air Station Beaufort**
**Beaufort, South Carolina**

| Constituent | SCDHEC RBSLs [(1)] | Site-Specific Groundwater VISLs (µg/L)[(2)] | Results Sample Collected 07/30/08 |
|---|---|---|---|
| **Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)** | | | |
| Benzene | 5 | 16.24 | ND |
| Ethylbenzene | 700 | 45.95 | ND |
| Naphthalene | 25 | 29.33 | **4.3** |
| Toluene | 1000 | 105,445 | ND |
| Xylenes, Total | 10,000 | 2,133 | ND |
| **Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)** | | | |
| Benzo(a)anthracene | 10 | NA | ND |
| Benzo(b)fluoranthene | 10 | NA | ND |
| Benzo(k)fluoranthene | 10 | NA | ND |
| Chrysene | 10 | NA | ND |
| Dibenz(a,h)anthracene | 10 | NA | ND |

**Notes:**

(1) South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 (SCDHEC, May 2001).

(2) Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of $1x10^{-6}$, a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the SCDHEC RBSL and/or the Site-Specific Groundwater VISL.

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - not applicable

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

**Table 3**
**Laboratory Analytical Results - Vapor**
**711 West Cardinal Lane (Formerly 1468 West Cardinal Lane)**
**Laurel Bay Military Housing Area**
**Marine Corps Air Station Beaufort**
**Beaufort, South Carolina**

| Constituent | USEPA VISL [(1)] | Results Sample Collected 10/08/14 |
|---|---|---|
| **Volatile Organic Compounds Analyzed by USEPA Method TO-15 (µg/m$^3$)** | | |
| Benzene | 12 | ND |
| Toluene | 17000 | **0.28** |
| Ethylbenzene | 37 | ND |
| m,p-Xylenes | 350 | ND |
| o-Xylene | 350 | ND |
| Naphthalene | 2.8 | **0.68** |

**Notes:**

[(1)] United States Environmental Protection Agency Exterior Soil Gas Vapor Intrusion Screening Level (VISL) from VISL Calculator (Version 3.3.1, May 2014).

VISLs are based on a residual exposure scenario and a target risk level of $1x10^{-6}$ and a hazard quotient of 0.1.

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the residential VISL.

USEPA - United States Environmental Protection Agency

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

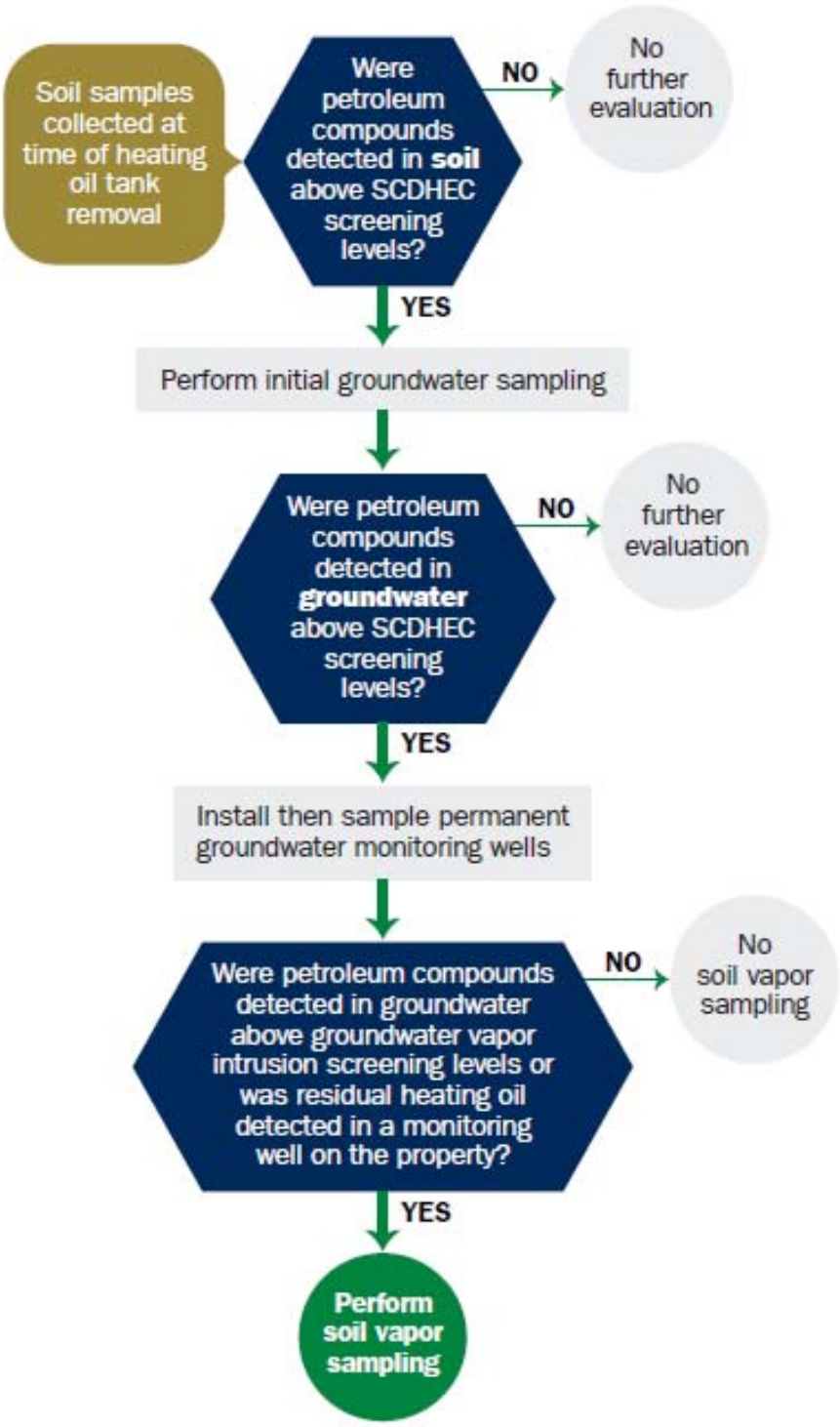
RBSL - Risk-Based Screening Level

µg/m$^3$ - micrograms per cubic meter

VISL - Vapor Intrusion Screening Level

**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

1468 CARDINAL

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) 896-6240**

RECEIVED
AUG 15 2007
Water Monitoring, Assessment & Protection

## I. OWNERSHIP OF UST (S)

Beaufort Military Complex Family Housing
Owner Name (Corporation, Individual, Public Agency, Other)

1510 Laurel Bay Blvd.
Mailing Address

Beaufort | SC | 29906
City | State | Zip Code

843 | 379-3305 | Kyle Broadfoot
Area Code | Telephone Number | Contact Person

## II. SITE IDENTIFICATION AND LOCATION

N/A
Permit I.D. #

Actus Lend Lease Construction
Facility Name or Company Site Identifier

1510 Laurel Bay Blvd
Street Address or State Road (as applicable)

Beaufort, SC 29906 | Beaufort
City ZIP | County

Attachment 2

## III. INSURANCE INFORMATION

### Insurance Statement

The petroleum release reported to DHEC on N/A at Permit ID # 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.

**And**

I **do/do not** (circle one) wish to participate in the Superb Program.

## IV. CERTIFICATION (To be signed by the UST owner/operator.)

**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*

## V. UST INFORMATION

| | Tank 1 | Tank 2 | Tank 3 | Tank 4 | Tank 5 | Tank 6 |
|---|---|---|---|---|---|---|
| A. Product...(ex. Gas, Kerosene)..... | #2 DIESEL | | | | | |
| B. Capacity..(ex. 1k, 2k)..... (APPROX.) | 350g | | | | | |
| C. Age..... | | | | | | |
| D. Construction Material..(ex. Steel, FRP)..... | Steel | | | | | |
| E. Month/Year of Last Use..... | | | | | | |
| F. Depth (ft.) To Base of Tank..... | | | | | | |
| G. Spill Prevention Equipment Y/N..... | N | | | | | |
| H. Overfill Prevention Equipment Y/N..... | N | | | | | |
| I. Method of Closure (Removed)/Filled..... | Removed | | | | | |
| J. Date Tanks Removed/Filled..... | 8/16/06 | | | | | |
| K. Visible Corrosion or Pitting Y/N..... | ✓ | | | | | |
| L. Visible Holes Y/N..... | ✓ | | | | | |

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

Recycling - Scrap Steel

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)

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

## VI. PIPING INFORMATION

| | Tank 1 | Tank 2 | Tank 3 | Tank 4 | Tank 5 | Tank 6 |
|---|---|---|---|---|---|---|
| A. Construction Material..(ex. Steel, FRP)..... | Steel | | | | | |
| B. Distance from UST to Dispenser..... | N/A | | | | | |
| C. Number of Dispensers..... | -0- | | | | | |
| D. Type of System Pressure or Suction..... | Electric Pump | | | | | |
| E. Was Piping Removed from the Ground? Y/N | N | | | | | |
| F. Visible Corrosion or Pitting Y/N..... | N | | | | | |
| G. Visible Holes Y/N..... | | | | | | |
| H. Age..... | | | | | | |

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

## VII. BRIEF SITE DESCRIPTION AND HISTORY

Home Heating Oil Tank - Residential

## VIII. 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. | | √ | |
| 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.) | | √ | |
| 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)? | | √ | |
| 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: | | √ | |
| E. Was a petroleum sheen or free product detected on any excavation or boring waters?<br><br>If yes, indicate location and thickness. | | √ | |

## IX. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number DW: 84009002

B.

| Sample # | Location | Sample Type (Soil/Water) | Soil Type (Sand/Clay) | Depth* | Date/Time of Collection | Collected by | OVA # |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 1 | | S | | | | A. MANUCY | ND |
| 2 | | S | | | | A. MANUCY | ND |
| 3 | | | | | | | |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |
| 14 | | | | | | | |
| 15 | | | | | | | |
| 16 | | | | | | | |
| 17 | | | | | | | |
| 18 | | | | | | | |
| 19 | | | | | | | |
| 20 | | | | | | | |

* = Depth Below the Surrounding Land Surface

## X. 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.

EPA Method 8260 B Volatile Organic Compounds
- Preservative: 2 EA Sodium Bisulfate 1 EA
EPA Method 8270 Poly Aromatic Hydrocarbons
- No Preservative

One (1) Sidewall and One (1) Bottom Sample were secured from tank excavation Samples were stored and shipped in an insulated cooler w/ ice.

## XI. RECEPTORS

| | Yes | No |
|---|---|---|
| A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?<br><br>If yes, indicate type of receptor, distance, and direction on site map. | | |
| B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?<br><br>If yes, indicate type of well, distance, and direction on site map. | | ✓ |
| C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?<br><br>If yes, indicate type of structure, distance, and direction on site map. | | ✓ |
| D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination?<br><br>If yes, indicate the type of utility, distance, and direction on the site map. | | ✓ |
| 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><br>If yes, indicate the area of contaminated soil on the site map. | | ✓ |

## SUMMARY OF ANALYSIS RESULTS N/A

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

| CoC | SB-1 | SB-2 | SB-3 | SB-4 | SB-5 | SB-6 | SB-7 | SB-8 |
|---|---|---|---|---|---|---|---|---|
| Benzene | | | | | | | | |
| Toluene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Xylenes | | | | | | | | |
| Naphthalene | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Benzo(b)flouranthene | | | | | | | | |
| Benzo(k)flouranthene | | | | | | | | |
| Chrysene | | | | | | | | |
| Dibenz(a,h)anthracene | | | | | | | | |
| TPH (EPA 3550) | | | | | | | | |

| CoC | SB-9 | SB-10 | SB-11 | SB-12 | SB-13 | SB-14 | SB-15 | SB-16 |
|---|---|---|---|---|---|---|---|---|
| Benzene | | | | | | | | |
| Toluene | | | | | | | | |
| Ethylbenzene | | | | | | | | |
| Xylenes | | | | | | | | |
| Naphthalene | | | | | | | | |
| Benzo(a)anthracene | | | | | | | | |
| Benzo(b)flouranthene | | | | | | | | |
| Benzo(k)flouranthene | | | | | | | | |
| Chrysene | | | | | | | | |
| Dibenz(a,h)anthracene | | | | | | | | |
| TPH (EPA 3550) | | | | | | | | |

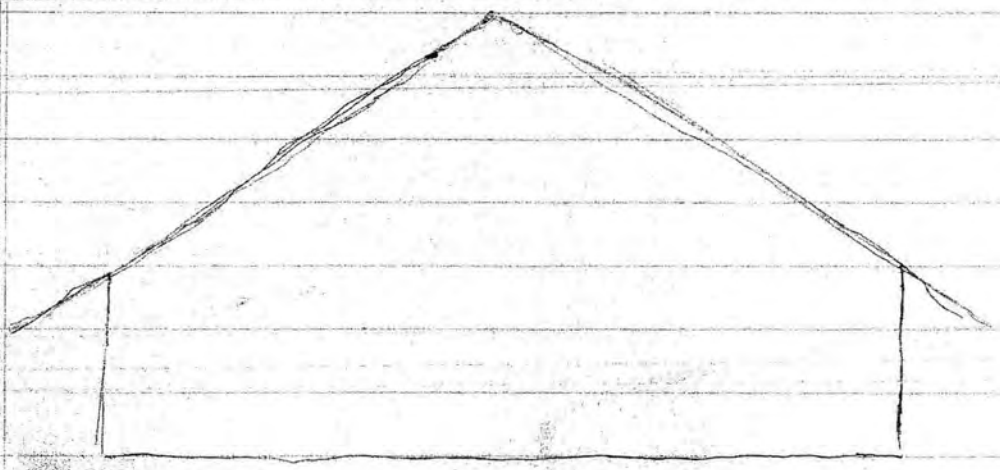
SUMMARY OF ANALYSIS RESULTS (cont'd) N/A

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 | .05 | | | | |
| Lead | Site specific | | | | |

4-

1468 Cardinal



size of tank 5ft
length of hole 10ft 8in
depth " " 5ft
width " " 8ft 10in
house to center of tank 8ft 3in


1968 Cockpit

## 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
ANALYTICAL TESTING CORPORATION
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

August 25, 2006

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465

Attn: JOHN MAHONEY

Work Order: OPH0362
Project Name: LAUREL BAY
Project Number: EP 2362
Date Received: 08/18/06

| SAMPLE IDENTIFICATION | LAB NUMBER | COLLECTION DATE AND TIME |
|---|---|---|
| 441-01 BOTTOM | OPH0362-01 | 08/14/06 10:15 |
| 441-02 SIDE | OPH0362-02 | 08/14/06 10:15 |
| 143 LBB-01 BOTTOM | OPH0362-03 | 08/14/06 14:00 |
| 143 LBB-02 SIDE | OPH0362-04 | 08/14/06 14:00 |
| 143 LBB-03 BOTTOM | OPH0362-05 | 08/14/06 14:30 |
| 143 LBB-04 SIDE | OPH0362-06 | 08/14/06 14:30 |
| 270 BIRCH-01 BOTTOM | OPH0362-07 | 08/15/06 08:45 |
| 270 BIRCH-02 SIDE | OPH0362-08 | 08/15/06 08:50 |
| 201 BALSAM-01 BOTTOM | OPH0362-09 | 08/15/06 13:40 |
| 201 BALSAM-02 SIDE | OPH0362-10 | 08/15/06 13:45 |
| 1468 CARDINAL 01 BOTTOM | OPH0362-11 | 08/16/06 09:25 |
| 1468 CARDINAL 02 SIDE | OPH0362-12 | 08/16/06 09:25 |
| 1472 CARDINAL 01 BOTTOM | OPH0362-13 | 08/16/06 13:30 |
| 1472 CARDINAL 02 SIDE | OPH0362-14 | 08/16/06 14:00 |

Samples were received into laboratory at a temperature of 5.00 °C.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.



Results are reported on a wet weight basis unless otherwise noted

The reported results were obtained in compliance with 2003 NELAC standards unless otherwise noted.

South Carolina Certification Number: 96012001

Approved By:

**TestAmerica - Orlando, FL**
Shali Brown
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-656-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 441-01 BOTTOM - Lab Number: OPH0362-01 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **85.5** | | %. | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21005 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 43.0 | RL2,U | ug/kg dry | 43.0 | 118 | 250 | 08/18/06 17:12 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | **Ethylbenzene** | **1480** | | ug/kg dry | 49.7 | 118 | 250 | 08/18/06 17:12 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | **Naphthalene** | **15600** | | ug/kg dry | 64.9 | 118 | 250 | 08/18/06 17:12 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | **Toluene** | **127** | | ug/kg dry | 102 | 118 | 250 | 08/18/06 17:12 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | **Xylenes, total** | **4530** | | ug/kg dry | 61.0 | 118 | 250 | 08/18/06 17:12 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *99 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *103 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *102 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *102 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 86.5 | U | ug/kg dry | 86.5 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 114 | U | ug/kg dry | 114 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | **Anthracene** | **7410** | | ug/kg dry | 623 | 1950 | 10 | 08/25/06 09:17 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | **Benzo (a) anthracene** | **242** | J | ug/kg dry | 211 | 1950 | 10 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 20.6 | U | ug/kg dry | 20.6 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 20.6 | U | ug/kg dry | 20.6 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 20.3 | U | ug/kg dry | 20.3 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 24.0 | U | ug/kg dry | 24.0 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | **1-Methylnaphthalene** | **22700** | | ug/kg dry | 980 | 1950 | 10 | 08/25/06 09:17 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 23.4 | U | ug/kg dry | 23.4 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 25.6 | U | ug/kg dry | 25.6 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 28.1 | U | ug/kg dry | 28.1 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | **Fluorene** | **1350** | | ug/kg dry | 76.4 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 25.3 | U | ug/kg dry | 25.3 | 195 | 1 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | **2-Methylnaphthalene** | **34000** | | ug/kg dry | 833 | 1950 | 10 | 08/25/06 09:17 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | **Naphthalene** | **5880** | | ug/kg dry | 784 | 1950 | 10 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | **Phenanthrene** | **7320** | | ug/kg dry | 461 | 1950 | 10 | 08/25/06 09:17 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | **Pyrene** | **511** | J | ug/kg dry | 397 | 1950 | 10 | 08/24/06 18:52 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *67 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *93 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *35 %* | J1 | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 441-02 SIDE - Lab Number: OPH0362-02 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **86.2** | | %. | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21005 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 47.5 | RL2,U | ug/kg dry | 47.5 | 130 | 250 | 08/18/06 17:29 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | **Ethylbenzene** | **781** | | ug/kg dry | 54.9 | 130 | 250 | 08/18/06 17:29 | JLS | EPA 8260B | 6H21019 |

Client: EPG, INC
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 441-02 SIDE - Lab Number: OPH0362-02 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by EPA Method 8260B - Cont.** | | | | | | | | | | | |
| 91-20-3 | **Naphthalene** | **10200** | | ug/kg dry | 71.6 | 130 | 250 | 08/18/06 17:29 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | **Toluene** | **117** | I | ug/kg dry | 112 | 130 | 250 | 08/18/06 17:29 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | **Xylenes, total** | **1480** | | ug/kg dry | 67.4 | 130 | 250 | 08/18/06 17:29 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *98 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *108 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *101 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *103 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 85.8 | U | ug/kg dry | 85.8 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 113 | U | ug/kg dry | 113 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | **Anthracene** | **12800** | | ug/kg dry | 618 | 1940 | 10 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | **Benzo (a) anthracene** | **619** | | ug/kg dry | 21.0 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | **Benzo (b) fluoranthene** | **454** | | ug/kg dry | 20.4 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | **Benzo (k) fluoranthene** | **463** | | ug/kg dry | 20.4 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 20.1 | U | ug/kg dry | 20.1 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 23.8 | U | ug/kg dry | 23.8 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | **1-Methylnaphthalene** | **36100** | | ug/kg dry | 973 | 1940 | 10 | 08/25/06 10:42 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | **Chrysene** | **874** | I | ug/kg dry | 232 | 1940 | 10 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 25.4 | U | ug/kg dry | 25.4 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 27.9 | U | ug/kg dry | 27.9 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 75.8 | U | ug/kg dry | 75.8 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 25.1 | U | ug/kg dry | 25.1 | 194 | 1 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | **2-Methylnaphthalene** | **51200** | | ug/kg dry | 826 | 1940 | 10 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | **Naphthalene** | **9560** | | ug/kg dry | 778 | 1940 | 10 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | **Phenanthrene** | **12700** | | ug/kg dry | 457 | 1940 | 10 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | **Pyrene** | **2010** | | ug/kg dry | 394 | 1940 | 10 | 08/24/06 19:20 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *80 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *57 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *90 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 143 LBB-01 BOTTOM - Lab Number: OPH0362-03 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **82.4** | | % | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21005 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.164 | U | ug/kg dry | 0.164 | 0.449 | 1 | 08/18/06 13:50 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | **Ethylbenzene** | **2.24** | | ug/kg dry | 0.190 | 0.449 | 1 | 08/18/06 13:50 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | **Naphthalene** | **12.2** | | ug/kg dry | 0.248 | 0.449 | 1 | 08/18/06 13:50 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 0.388 | U | ug/kg dry | 0.388 | 0.449 | 1 | 08/18/06 13:50 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | **Xylenes, total** | **0.512** | | ug/kg dry | 0.233 | 0.449 | 1 | 08/18/06 13:50 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *111 %* | | | | | | | | | |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 143 LBB-01 BOTTOM - Lab Number: OPH0362-03 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by EPA Method 8260B - Cont.** | | | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *106 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *106 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *104 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 89.8 | U | ug/kg dry | 89.8 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 119 | U | ug/kg dry | 119 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 64.6 | U | ug/kg dry | 64.6 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 21.9 | U | ug/kg dry | 21.9 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 21.3 | U | ug/kg dry | 21.3 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 21.3 | U | ug/kg dry | 21.3 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 21.0 | U | ug/kg dry | 21.0 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 24.9 | U | ug/kg dry | 24.9 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 102 | U | ug/kg dry | 102 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 24.2 | U | ug/kg dry | 24.2 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 26.6 | U | ug/kg dry | 26.6 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 29.2 | U | ug/kg dry | 29.2 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 79.3 | U | ug/kg dry | 79.3 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 26.2 | U | ug/kg dry | 26.2 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 86.4 | U | ug/kg dry | 86.4 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 81.4 | U | ug/kg dry | 81.4 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | Phenanthrene | 47.8 | U | ug/kg dry | 47.8 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 41.2 | U | ug/kg dry | 41.2 | 203 | 1 | 08/24/06 19:48 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *87 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *78 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *94 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 143 LBB-02 SIDE - Lab Number: OPH0362-04 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **89.8** | | %. | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21005 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.178 | U | ug/kg dry | 0.178 | 0.487 | 1 | 08/18/06 14:10 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | Ethylbenzene | 0.206 | U | ug/kg dry | 0.206 | 0.487 | 1 | 08/18/06 14:10 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | Naphthalene | 0.269 | U | ug/kg dry | 0.269 | 0.487 | 1 | 08/18/06 14:10 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 0.420 | U | ug/kg dry | 0.420 | 0.487 | 1 | 08/18/06 14:10 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | Xylenes, total | 0.253 | U | ug/kg dry | 0.253 | 0.487 | 1 | 08/18/06 14:10 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *113 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *104 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *105 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *103 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 143 LBB-02 SIDE - Lab Number: OPH0362-04 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 82.4 | U | ug/kg dry | 82.4 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 109 | U | ug/kg dry | 109 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 59.3 | U | ug/kg dry | 59.3 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 20.1 | U | ug/kg dry | 20.1 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 19.6 | U | ug/kg dry | 19.6 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 19.6 | U | ug/kg dry | 19.6 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 19.3 | U | ug/kg dry | 19.3 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 22.9 | U | ug/kg dry | 22.9 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 93.4 | U | ug/kg dry | 93.4 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 22.2 | U | ug/kg dry | 22.2 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 24.4 | U | ug/kg dry | 24.4 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 26.7 | U | ug/kg dry | 26.7 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 72.8 | U | ug/kg dry | 72.8 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 24.1 | U | ug/kg dry | 24.1 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 79.3 | U | ug/kg dry | 79.3 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 74.7 | U | ug/kg dry | 74.7 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | Phenanthrene | 43.9 | U | ug/kg dry | 43.9 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 37.8 | U | ug/kg dry | 37.8 | 186 | 1 | 08/24/06 20:16 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *102 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *94 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *114 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 143 LBB-03 BOTTOM - Lab Number: OPH0362-05 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **86.3** | | % | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21005 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.169 | U | ug/kg dry | 0.169 | 0.461 | 1 | 08/18/06 14:30 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | Ethylbenzene | 0.195 | U | ug/kg dry | 0.195 | 0.461 | 1 | 08/18/06 14:30 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | Naphthalene | 0.254 | U | ug/kg dry | 0.254 | 0.461 | 1 | 08/18/06 14:30 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 0.398 | U | ug/kg dry | 0.398 | 0.461 | 1 | 08/18/06 14:30 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | Xylenes, total | 0.239 | U | ug/kg dry | 0.239 | 0.461 | 1 | 08/18/06 14:30 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *111 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *103 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *104 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *103 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 85.7 | U | ug/kg dry | 85.7 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 113 | U | ug/kg dry | 113 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 61.7 | U | ug/kg dry | 61.7 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 21.0 | U | ug/kg dry | 21.0 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 143 LBB-03 BOTTOM - Lab Number: OPH0362-05 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.** | | | | | | | | | | | |
| 205-99-2 | Benzo (b) fluoranthene | 20.4 | U | ug/kg dry | 20.4 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 20.4 | U | ug/kg dry | 20.4 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 20.1 | U | ug/kg dry | 20.1 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 23.8 | U | ug/kg dry | 23.8 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 97.1 | U | ug/kg dry | 97.1 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 23.2 | U | ug/kg dry | 23.2 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 25.4 | U | ug/kg dry | 25.4 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 27.8 | U | ug/kg dry | 27.8 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 75.7 | U | ug/kg dry | 75.7 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 25.1 | U | ug/kg dry | 25.1 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 82.5 | U | ug/kg dry | 82.5 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 77.7 | U | ug/kg dry | 77.7 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | Phenanthrene | 45.6 | U | ug/kg dry | 45.6 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 39.3 | U | ug/kg dry | 39.3 | 194 | 1 | 08/24/06 20:44 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *91 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *82 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *122 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 143 LBB-04 SIDE - Lab Number: OPH0362-06 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | % Solids | 92.6 | | %. | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21005 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.181 | U | ug/kg dry | 0.181 | 0.495 | 1 | 08/18/06 14:51 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | Ethylbenzene | 0.210 | U | ug/kg dry | 0.210 | 0.495 | 1 | 08/18/06 14:51 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | Naphthalene | 0.274 | U | ug/kg dry | 0.274 | 0.495 | 1 | 08/18/06 14:51 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 0.428 | U | ug/kg dry | 0.428 | 0.495 | 1 | 08/18/06 14:51 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | Xylenes, total | 0.257 | U | ug/kg dry | 0.257 | 0.495 | 1 | 08/18/06 14:51 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *117 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *104 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *107 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *103 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 79.9 | U | ug/kg dry | 79.9 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 105 | U | ug/kg dry | 105 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 57.5 | U | ug/kg dry | 57.5 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 19.5 | U | ug/kg dry | 19.5 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 19.0 | U | ug/kg dry | 19.0 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 19.0 | U | ug/kg dry | 19.0 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 18.7 | U | ug/kg dry | 18.7 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 22.2 | U | ug/kg dry | 22.2 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT

**Sample ID: 143 LBB-04 SIDE - Lab Number: OPH0362-06 - Matrix: Solid/Soil**

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.** | | | | | | | | | | | |
| 90-12-0 | 1-Methylnaphthalene | 90.5 | U | ug/kg dry | 90.5 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 21.6 | U | ug/kg dry | 21.6 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 23.7 | U | ug/kg dry | 23.7 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 25.9 | U | ug/kg dry | 25.9 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 70.6 | U | ug/kg dry | 70.6 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 23.3 | U | ug/kg dry | 23.3 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 76.9 | U | ug/kg dry | 76.9 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 72.4 | U | ug/kg dry | 72.4 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | Phenanthrene | 42.5 | U | ug/kg dry | 42.5 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 36.6 | U | ug/kg dry | 36.6 | 180 | 1 | 08/24/06 21:12 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *65 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *75 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *124 %* | | | | | | | | | |

## LABORATORY REPORT

**Sample ID: 270 BIRCH-01 BOTTOM - Lab Number: OPH0362-07 - Matrix: Solid/Soil**

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **93.8** | | %. | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21006 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.206 | U | ug/kg dry | 0.206 | 0.562 | 1 | 08/18/06 15:13 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | Ethylbenzene | 0.238 | U | ug/kg dry | 0.238 | 0.562 | 1 | 08/18/06 15:13 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | Naphthalene | 0.311 | U | ug/kg dry | 0.311 | 0.562 | 1 | 08/18/06 15:13 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 0.486 | U | ug/kg dry | 0.486 | 0.562 | 1 | 08/18/06 15:13 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | Xylenes, total | 0.292 | U | ug/kg dry | 0.292 | 0.562 | 1 | 08/18/06 15:13 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *112 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *102 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *104 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *103 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 78.9 | U | ug/kg dry | 78.9 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 104 | U | ug/kg dry | 104 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 56.8 | U | ug/kg dry | 56.8 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 19.3 | U | ug/kg dry | 19.3 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 18.7 | U | ug/kg dry | 18.7 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 18.7 | U | ug/kg dry | 18.7 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 18.5 | U | ug/kg dry | 18.5 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 21.9 | U | ug/kg dry | 21.9 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 89.4 | U | ug/kg dry | 89.4 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 21.3 | U | ug/kg dry | 21.3 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 23.4 | U | ug/kg dry | 23.4 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 25.6 | U | ug/kg dry | 25.6 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
**Sample ID: 270 BIRCH-01 BOTTOM - Lab Number: OPH0362-07 - Matrix: Solid/Soil**

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.** | | | | | | | | | | | |
| 86-73-7 | Fluorene | 69.7 | U | ug/kg dry | 69.7 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 23.0 | U | ug/kg dry | 23.0 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 75.9 | U | ug/kg dry | 75.9 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 71.5 | U | ug/kg dry | 71.5 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | Phenanthrene | 42.0 | U | ug/kg dry | 42.0 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 36.2 | U | ug/kg dry | 36.2 | 178 | 1 | 08/24/06 21:40 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *93 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *88 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *130 %* | | | | | | | | | |

## LABORATORY REPORT
**Sample ID: 270 BIRCH-02 SIDE - Lab Number: OPH0362-08 - Matrix: Solid/Soil**

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **95.2** | | % | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21006 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.191 | U | ug/kg dry | 0.191 | 0.522 | 1 | 08/18/06 15:34 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | Ethylbenzene | 0.221 | U | ug/kg dry | 0.221 | 0.522 | 1 | 08/18/06 15:34 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | Naphthalene | 0.288 | U | ug/kg dry | 0.288 | 0.522 | 1 | 08/18/06 15:34 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 0.451 | U | ug/kg dry | 0.451 | 0.522 | 1 | 08/18/06 15:34 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | Xylenes, total | 0.271 | U | ug/kg dry | 0.271 | 0.522 | 1 | 08/18/06 15:34 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *111 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *99 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *106 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *101 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 77.7 | U | ug/kg dry | 77.7 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 103 | U | ug/kg dry | 103 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 55.9 | U | ug/kg dry | 55.9 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 19.0 | U | ug/kg dry | 19.0 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 18.5 | U | ug/kg dry | 18.5 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 18.5 | U | ug/kg dry | 18.5 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 18.2 | U | ug/kg dry | 18.2 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 21.6 | U | ug/kg dry | 21.6 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 88.1 | U | ug/kg dry | 88.1 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 21.0 | U | ug/kg dry | 21.0 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 23.0 | U | ug/kg dry | 23.0 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 25.2 | U | ug/kg dry | 25.2 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 68.7 | U | ug/kg dry | 68.7 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 22.7 | U | ug/kg dry | 22.7 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 74.8 | U | ug/kg dry | 74.8 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 70.4 | U | ug/kg dry | 70.4 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 270 BIRCH-02 SIDE - Lab Number: OPH0362-08 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.** | | | | | | | | | | | |
| 85-01-8 | Phenanthrene | 41.4 | U | ug/kg dry | 41.4 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 35.6 | U | ug/kg dry | 35.6 | 175 | 1 | 08/24/06 22:08 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *94 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *87 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *123 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 201 BALSAM-01 BOTTOM - Lab Number: OPH0362-09 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **85.4** | | % | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21006 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 44.3 | RL2,U | ug/kg dry | 44.3 | 121 | 250 | 08/18/06 17:47 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | **Ethylbenzene** | **2370** | | ug/kg dry | 51.2 | 121 | 250 | 08/18/06 17:47 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | **Naphthalene** | **16600** | | ug/kg dry | 66.8 | 121 | 250 | 08/18/06 17:47 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 104 | U | ug/kg dry | 104 | 121 | 250 | 08/18/06 17:47 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | **Xylenes, total** | **1810** | | ug/kg dry | 62.8 | 121 | 250 | 08/18/06 17:47 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *101 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *107 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *101 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *103 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | **Acenaphthene** | **2250** | | ug/kg dry | 867 | 1960 | 10 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 114 | U | ug/kg dry | 114 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | **Anthracene** | **11200** | | ug/kg dry | 624 | 1960 | 10 | 08/25/06 12:35 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 21.2 | U | ug/kg dry | 21.2 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 20.6 | U | ug/kg dry | 20.6 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 20.6 | U | ug/kg dry | 20.6 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 20.3 | U | ug/kg dry | 20.3 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 24.1 | U | ug/kg dry | 24.1 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | **1-Methylnaphthalene** | **21500** | | ug/kg dry | 982 | 1960 | 10 | 08/25/06 12:35 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | **Chrysene** | **464** | J | ug/kg dry | 234 | 1960 | 10 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 25.7 | U | ug/kg dry | 25.7 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | **Fluoranthene** | **706** | J | ug/kg dry | 281 | 1960 | 10 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | **Fluorene** | **2490** | | ug/kg dry | 76.5 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 25.3 | U | ug/kg dry | 25.3 | 196 | 1 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | **2-Methylnaphthalene** | **25500** | | ug/kg dry | 834 | 1960 | 10 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | **Naphthalene** | **4220** | | ug/kg dry | 785 | 1960 | 10 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | **Phenanthrene** | **11100** | | ug/kg dry | 461 | 1960 | 10 | 08/25/06 12:35 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | **Pyrene** | **1530** | J | ug/kg dry | 397 | 1960 | 10 | 08/24/06 22:36 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *85 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *39 %* | | | | | | | | | |

TestAmerica
ANALYTICAL TESTING CORPORATION
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT

**Sample ID: 201 BALSAM-01 BOTTOM - Lab Number: OPH0362-09 - Matrix: Solid/Soil**

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.** | | | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *83 %* | | | | | | | | | |

## LABORATORY REPORT

**Sample ID: 201 BALSAM-02 SIDE - Lab Number: OPH0362-10 - Matrix: Solid/Soil**

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **91.6** | | % | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21006 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.161 | U | ug/kg dry | 0.161 | 0.440 | 1 | 08/18/06 15:55 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | Ethylbenzene | 0.186 | U | ug/kg dry | 0.186 | 0.440 | 1 | 08/18/06 15:55 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | **Naphthalene** | **0.414** | I | ug/kg dry | 0.243 | 0.440 | 1 | 08/18/06 15:55 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 0.380 | U | ug/kg dry | 0.380 | 0.440 | 1 | 08/18/06 15:55 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | Xylenes, total | 0.229 | U | ug/kg dry | 0.229 | 0.440 | 1 | 08/18/06 15:55 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *116 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *98 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *106 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *99 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 80.8 | U | ug/kg dry | 80.8 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 107 | U | ug/kg dry | 107 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 58.1 | U | ug/kg dry | 58.1 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | **Benzo (a) anthracene** | **519** | | ug/kg dry | 19.7 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | **Benzo (b) fluoranthene** | **219** | | ug/kg dry | 19.2 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | **Benzo (k) fluoranthene** | **228** | | ug/kg dry | 19.2 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | **Benzo (g,h,i) perylene** | **833** | | ug/kg dry | 18.9 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | **Benzo (a) pyrene** | **923** | | ug/kg dry | 22.4 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 91.5 | U | ug/kg dry | 91.5 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | **Chrysene** | **577** | | ug/kg dry | 21.8 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 23.9 | U | ug/kg dry | 23.9 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 26.2 | U | ug/kg dry | 26.2 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 71.4 | U | ug/kg dry | 71.4 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | **Indeno (1,2,3-cd) pyrene** | **718** | | ug/kg dry | 23.6 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 77.7 | U | ug/kg dry | 77.7 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 73.2 | U | ug/kg dry | 73.2 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | Phenanthrene | 43.0 | U | ug/kg dry | 43.0 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 37.0 | U | ug/kg dry | 37.0 | 182 | 1 | 08/24/06 23:04 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *94 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *79 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *78 %* | | | | | | | | | |

TestAmerica
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4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 1468 CARDINAL 01 BOTTOM - Lab Number: OPH0362-11 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **96.6** | | %. | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21006 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.221 | U | ug/kg dry | 0.221 | 0.603 | 1 | 08/18/06 16:16 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | **Ethylbenzene** | **0.458** | J | ug/kg dry | 0.255 | 0.603 | 1 | 08/18/06 16:16 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | **Naphthalene** | **2.23** | | ug/kg dry | 0.333 | 0.603 | 1 | 08/18/06 16:16 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | **Toluene** | **2.64** | | ug/kg dry | 0.521 | 0.603 | 1 | 08/18/06 16:16 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | **Xylenes, total** | **4.25** | | ug/kg dry | 0.313 | 0.603 | 1 | 08/18/06 16:16 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *116 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *101 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *106 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *102 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 76.6 | U | ug/kg dry | 76.6 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 101 | U | ug/kg dry | 101 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 55.1 | U | ug/kg dry | 55.1 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | **Benzo (a) anthracene** | **547** | | ug/kg dry | 18.7 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | **Benzo (b) fluoranthene** | **283** | | ug/kg dry | 18.2 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | **Benzo (k) fluoranthene** | **295** | | ug/kg dry | 18.2 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 17.9 | U | ug/kg dry | 17.9 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | **Benzo (a) pyrene** | **238** | | ug/kg dry | 21.3 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 86.8 | U | ug/kg dry | 86.8 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | **Chrysene** | **769** | | ug/kg dry | 20.7 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 22.7 | U | ug/kg dry | 22.7 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | **Fluoranthene** | **1000** | | ug/kg dry | 24.9 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 67.7 | U | ug/kg dry | 67.7 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 22.4 | U | ug/kg dry | 22.4 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 73.7 | U | ug/kg dry | 73.7 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 69.4 | U | ug/kg dry | 69.4 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | **Phenanthrene** | **166** | J | ug/kg dry | 40.8 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | **Pyrene** | **1310** | | ug/kg dry | 35.1 | 173 | 1 | 08/24/06 23:32 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *96 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *88 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *117 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 1468 CARDINAL 02 SIDE - Lab Number: OPH0362-12 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **72.2** | | %. | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21006 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.256 | U | ug/kg dry | 0.256 | 0.698 | 1 | 08/18/06 16:37 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | **Ethylbenzene** | **0.489** | J | ug/kg dry | 0.295 | 0.698 | 1 | 08/18/06 16:37 | JLS | EPA 8260B | 6H21019 |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 1468 CARDINAL 02 SIDE - Lab Number: OPH0362-12 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by EPA Method 8260B - Cont.** | | | | | | | | | | | |
| 91-20-3 | Naphthalene | 0.386 | U | ug/kg dry | 0.386 | 0.698 | 1 | 08/18/06 16:37 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | **Toluene** | **0.963** | | ug/kg dry | 0.603 | 0.698 | 1 | 08/18/06 16:37 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | **Xylenes, total** | **5.92** | | ug/kg dry | 0.363 | 0.698 | 1 | 08/18/06 16:37 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *115 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *81 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *107 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *92 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 102 | U | ug/kg dry | 102 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 135 | U | ug/kg dry | 135 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 73.8 | U | ug/kg dry | 73.8 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 25.0 | U | ug/kg dry | 25.0 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 24.3 | U | ug/kg dry | 24.3 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 24.3 | U | ug/kg dry | 24.3 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 24.0 | U | ug/kg dry | 24.0 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 28.5 | U | ug/kg dry | 28.5 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 116 | U | ug/kg dry | 116 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 27.7 | U | ug/kg dry | 27.7 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 30.4 | U | ug/kg dry | 30.4 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 33.3 | U | ug/kg dry | 33.3 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 90.5 | U | ug/kg dry | 90.5 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 29.9 | U | ug/kg dry | 29.9 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 98.6 | U | ug/kg dry | 98.6 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 92.9 | U | ug/kg dry | 92.9 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | Phenanthrene | 54.6 | U | ug/kg dry | 54.6 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 47.0 | U | ug/kg dry | 47.0 | 231 | 1 | 08/25/06 00:00 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *97 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *86 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *127 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 1472 CARDINAL 01 BOTTOM - Lab Number: OPH0362-13 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **82.0** | | % | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21006 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 45.4 | RL2,U | ug/kg dry | 45.4 | 124 | 250 | 08/18/06 18:04 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | **Ethylbenzene** | **586** | | ug/kg dry | 52.5 | 124 | 250 | 08/18/06 18:04 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | **Naphthalene** | **5350** | | ug/kg dry | 68.6 | 124 | 250 | 08/18/06 18:04 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | Toluene | 107 | U | ug/kg dry | 107 | 124 | 250 | 08/18/06 18:04 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | **Xylenes, total** | **628** | | ug/kg dry | 64.5 | 124 | 250 | 08/18/06 18:04 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *102 %* | | | | | | | | | |

TestAmerica
ANALYTICAL TESTING CORPORATION
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT
### Sample ID: 1472 CARDINAL 01 BOTTOM - Lab Number: OPH0362-13 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by EPA Method 8260B - Cont.** | | | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *107 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *101 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *103 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | **Acenaphthene** | **3930** | | ug/kg dry | 902 | 2040 | 10 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 119 | U | ug/kg dry | 119 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | **Anthracene** | **15500** | | ug/kg dry | 649 | 2040 | 10 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | **Benzo (a) anthracene** | **126** | I | ug/kg dry | 22.0 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 21.4 | U | ug/kg dry | 21.4 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 21.4 | U | ug/kg dry | 21.4 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 21.1 | U | ug/kg dry | 21.1 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 25.1 | U | ug/kg dry | 25.1 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 102 | U | ug/kg dry | 102 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 24.4 | U | ug/kg dry | 24.4 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 26.7 | U | ug/kg dry | 26.7 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 29.3 | U | ug/kg dry | 29.3 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 79.7 | U | ug/kg dry | 79.7 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 26.4 | U | ug/kg dry | 26.4 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | **2-Methylnaphthalene** | **60400** | | ug/kg dry | 868 | 2040 | 10 | 08/25/06 13:31 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | **Naphthalene** | **14600** | | ug/kg dry | 818 | 2040 | 10 | 08/25/06 13:31 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | **Phenanthrene** | **15300** | | ug/kg dry | 480 | 2040 | 10 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 41.4 | U | ug/kg dry | 41.4 | 204 | 1 | 08/25/06 00:28 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *32 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | * | J1,U | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *65 %* | | | | | | | | | |

## LABORATORY REPORT
### Sample ID: 1472 CARDINAL 02 SIDE - Lab Number: OPH0362-14 - Matrix: Solid/Soil

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | | | | |
| NA | **% Solids** | **80.1** | | %. | 0.100 | 0.100 | 1 | 08/18/06 17:19 | AKA | EPA 160.3 | 6H21006 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | | |
| 71-43-2 | Benzene | 0.184 | U | ug/kg dry | 0.184 | 0.502 | 1 | 08/18/06 16:54 | JLS | EPA 8260B | 6H21019 |
| 100-41-4 | **Ethylbenzene** | **0.462** | I | ug/kg dry | 0.212 | 0.502 | 1 | 08/18/06 16:54 | JLS | EPA 8260B | 6H21019 |
| 91-20-3 | Naphthalene | 0.277 | U | ug/kg dry | 0.277 | 0.502 | 1 | 08/18/06 16:54 | JLS | EPA 8260B | 6H21019 |
| 108-88-3 | **Toluene** | **0.452** | I | ug/kg dry | 0.433 | 0.502 | 1 | 08/18/06 16:54 | JLS | EPA 8260B | 6H21019 |
| 1330-20-7 | **Xylenes, total** | **1.21** | | ug/kg dry | 0.261 | 0.502 | 1 | 08/18/06 16:54 | JLS | EPA 8260B | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4 (73-137%)* | | *114 %* | | | | | | | | | |
| *Surrogate: 4-Bromofluorobenzene (59-118%)* | | *106 %* | | | | | | | | | |
| *Surrogate: Dibromofluoromethane (55-145%)* | | *105 %* | | | | | | | | | |
| *Surrogate: Toluene-d8 (80-117%)* | | *103 %* | | | | | | | | | |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |

TestAmerica
ANALYTICAL TESTING CORPORATION
4310 East Anderson Road Orlando, FL 32812 * 800-651-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## LABORATORY REPORT

**Sample ID; 1472 CARDINAL 02 SIDE - Lab Number: OPH0362-14 - Matrix: Solid/Soil**

| CAS # | Analyte | Result | Q | Units | MDL | PQL | Dil Factor | Analyzed Date/Time | By | Method | Batch |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | | |
| 83-32-9 | Acenaphthene | 92.4 | U | ug/kg dry | 92.4 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 208-96-8 | Acenaphthylene | 122 | U | ug/kg dry | 122 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 120-12-7 | Anthracene | 66.5 | U | ug/kg dry | 66.5 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 56-55-3 | Benzo (a) anthracene | 22.6 | U | ug/kg dry | 22.6 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 205-99-2 | Benzo (b) fluoranthene | 21.9 | U | ug/kg dry | 21.9 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 207-08-9 | Benzo (k) fluoranthene | 21.9 | U | ug/kg dry | 21.9 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 191-24-2 | Benzo (g,h,i) perylene | 21.6 | U | ug/kg dry | 21.6 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 50-32-8 | Benzo (a) pyrene | 25.7 | U | ug/kg dry | 25.7 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 90-12-0 | 1-Methylnaphthalene | 1050 | U | ug/kg dry | 1050 | 2080 | 10 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 218-01-9 | Chrysene | 24.9 | U | ug/kg dry | 24.9 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 53-70-3 | Dibenz (a,h) anthracene | 27.4 | U | ug/kg dry | 27.4 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 206-44-0 | Fluoranthene | 30.0 | U | ug/kg dry | 30.0 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 86-73-7 | Fluorene | 81.6 | U | ug/kg dry | 81.6 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 193-39-5 | Indeno (1,2,3-cd) pyrene | 27.0 | U | ug/kg dry | 27.0 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 91-57-6 | 2-Methylnaphthalene | 889 | U | ug/kg dry | 889 | 2080 | 10 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 91-20-3 | Naphthalene | 837 | U | ug/kg dry | 837 | 2080 | 10 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 85-01-8 | Phenanthrene | 49.2 | U | ug/kg dry | 49.2 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| 129-00-0 | Pyrene | 42.4 | U | ug/kg dry | 42.4 | 208 | 1 | 08/25/06 00:56 | LCS | EPA 8270C | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl (24-121%)* | | *27 %* | | | | | | | | | |
| *Surrogate: Nitrobenzene-d5 (19-111%)* | | *46 %* | | | | | | | | | |
| *Surrogate: Terphenyl-d14 (44-171%)* | | *16 %* | J1 | | | | | | | | |

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Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## SAMPLE EXTRACTION DATA

| Parameter | Lab Number | Wt/Vol Extracted | Extracted Vol | Date | Analyst | Method |
|---|---|---|---|---|---|---|
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-01 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-02 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-03 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-04 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-05 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-06 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-07 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-08 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-09 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-10 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-11 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-12 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-13 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |
| Polynuclear Aromatic Hydrocarbons by EPA Method 8270 | OPH0362-14 | 30.0 g | 1.0 mL | 08/22/2006 | YGM | EPA 3545 MS |

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Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## PROJECT QUALITY CONTROL DATA
### Blank

| Analyte | Blank Value | Q | Units | Q.C. Batch | Lab Number |
|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | |
| % Solids | 0.100 | U | %. | 6H21005 | 6H21005-BLK1 |
| % Solids | 0.100 | U | %. | 6H21006 | 6H21006-BLK1 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | |
| Benzene | 0.183 | U | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| Benzene | 0.183 | U | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| Ethylbenzene | 0.212 | U | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| Ethylbenzene | 0.212 | U | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| Naphthalene | 0.276 | U | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| Naphthalene | 0.276 | U | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| Toluene | 0.432 | U | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| Toluene | 0.432 | U | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| Xylenes, total | 0.260 | U | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| Xylenes, total | 0.260 | U | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| *Surrogate: 1,2-Dichloroethane-d4* | 48.6 | | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| *Surrogate: 1,2-Dichloroethane-d4* | 50.1 | | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| *Surrogate: 4-Bromofluorobenzene* | 50.6 | | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| *Surrogate: 4-Bromofluorobenzene* | 50.0 | | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| *Surrogate: Dibromofluoromethane* | 50.9 | | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| *Surrogate: Dibromofluoromethane* | 51.0 | | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| *Surrogate: Toluene-d8* | 51.0 | | ug/kg wet | 6H21019 | 6H21019-BLK2 |
| *Surrogate: Toluene-d8* | 51.2 | | ug/kg wet | 6H21019 | 6H21019-BLK1 |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | |
| Acenaphthene | 74.0 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Acenaphthylene | 97.7 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Anthracene | 53.2 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Benzo (a) anthracene | 18.1 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Benzo (b) fluoranthene | 17.6 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Benzo (k) fluoranthene | 17.6 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Benzo (g,h,i) perylene | 17.3 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Benzo (a) pyrene | 20.6 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| 1-Methylnaphthalene | 83.8 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Chrysene | 20.0 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Dibenz (a,h) anthracene | 21.9 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Fluoranthene | 24.0 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Fluorene | 65.4 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Indeno (1,2,3-cd) pyrene | 21.6 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| 2-Methylnaphthalene | 71.2 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Naphthalene | 67.1 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Phenanthrene | 39.4 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| Pyrene | 33.9 | U | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| *Surrogate: 2-Fluorobiphenyl* | 2870 | | ug/kg wet | 6H22026 | 6H22026-BLK1 |

**TestAmerica - Orlando, FL**
Shali Brown
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## PROJECT QUALITY CONTROL DATA
### Blank - Cont.

| Analyte | Blank Value | Q | Units | Q.C. Batch | Lab Number |
|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | |
| *Surrogate: Nitrobenzene-d5* | 2500 | | ug/kg wet | 6H22026 | 6H22026-BLK1 |
| *Surrogate: Terphenyl-d14* | 3990 | | ug/kg wet | 6H22026 | 6H22026-BLK1 |

## PROJECT QUALITY CONTROL DATA
### Duplicate

| Analyte | Orig. Val. | Duplicate | Q | Units | RPD | RPD Limit | Q.C. Batch | Sample Duplicated |
|---|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | | |
| % Solids | 93.8 | 94.0 | | %. | 0.2 | 15.9 | 6H21006 | OPH0362-07 |
| % Solids | 90.1 | 90.4 | | %. | 0.3 | 15.9 | 6H21005 | OPH0361-01 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | |
| Benzene | <0.320 | 0.320 | U | ug/kg dry | | 30 | 6H21019 | OPH0363-02 |
| Ethylbenzene | <0.370 | 0.370 | U | ug/kg dry | | 30 | 6H21019 | OPH0363-02 |
| Naphthalene | <0.483 | 0.483 | U | ug/kg dry | | 30 | 6H21019 | OPH0363-02 |
| Toluene | <0.755 | 0.755 | U | ug/kg dry | | 30 | 6H21019 | OPH0363-02 |
| Xylenes, total | <0.454 | 0.454 | U | ug/kg dry | | 30 | 6H21019 | OPH0363-02 |
| *Surrogate: 1,2-Dichloroethane-d4* | | 58.3 | | ug/kg dry | | | 6H21019 | OPH0363-02 |
| *Surrogate: 4-Bromofluorobenzene* | | 50.6 | | ug/kg dry | | | 6H21019 | OPH0363-02 |
| *Surrogate: Dibromofluoromethane* | | 52.6 | | ug/kg dry | | | 6H21019 | OPH0363-02 |
| *Surrogate: Toluene-d8* | | 51.1 | | ug/kg dry | | | 6H21019 | OPH0363-02 |

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Client: EPG, INC.
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Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## PROJECT QUALITY CONTROL DATA
## LCS

| Analyte | Known Val. | Analyzed Val | Q | Units | % Rec. | Target Range | Q.C. Batch |
|---|---|---|---|---|---|---|---|
| **General Chemistry Parameters** | | | | | | | |
| % Solids | 380 | 382 | | % | 101 | 90 - 110 | 6H21006 |
| % Solids | 380 | 382 | | % | 101 | 90 - 110 | 6H21005 |
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | |
| Benzene | 50.0 | 48.4 | | ug/kg wet | 97 | 84 - 113 | 6H21019 |
| Benzene | 50.0 | 47.0 | | ug/kg wet | 94 | 84 - 113 | 6H21019 |
| Ethylbenzene | 50.0 | 47.2 | | ug/kg wet | 94 | 85 - 124 | 6H21019 |
| Ethylbenzene | 50.0 | 45.0 | | ug/kg wet | 90 | 85 - 124 | 6H21019 |
| Naphthalene | 50.0 | 55.1 | | ug/kg wet | 110 | 90 - 137 | 6H21019 |
| Naphthalene | 50.0 | 53.8 | | ug/kg wet | 108 | 90 - 137 | 6H21019 |
| Toluene | 50.0 | 48.8 | | ug/kg wet | 98 | 82 - 112 | 6H21019 |
| Toluene | 50.0 | 49.0 | | ug/kg wet | 98 | 82 - 112 | 6H21019 |
| Xylenes, total | 150 | 137 | | ug/kg wet | 91 | 84 - 127 | 6H21019 |
| Xylenes, total | 150 | 144 | | ug/kg wet | 96 | 84 - 127 | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4* | 50.0 | 51.7 | | ug/kg wet | 103 | 73 - 137 | 6H21019 |
| *Surrogate: 1,2-Dichloroethane-d4* | 50.0 | 50.2 | | ug/kg wet | 100 | 73 - 137 | 6H21019 |
| *Surrogate: 4-Bromofluorobenzene* | 50.0 | 50.7 | | ug/kg wet | 101 | 59 - 118 | 6H21019 |
| *Surrogate: 4-Bromofluorobenzene* | 50.0 | 51.2 | | ug/kg wet | 102 | 59 - 118 | 6H21019 |
| *Surrogate: Dibromofluoromethane* | 50.0 | 51.1 | | ug/kg wet | 102 | 55 - 145 | 6H21019 |
| *Surrogate: Dibromofluoromethane* | 50.0 | 51.4 | | ug/kg wet | 103 | 55 - 145 | 6H21019 |
| *Surrogate: Toluene-d8* | 50.0 | 52.0 | | ug/kg wet | 104 | 80 - 117 | 6H21019 |
| *Surrogate: Toluene-d8* | 50.0 | 51.3 | | ug/kg wet | 103 | 80 - 117 | 6H21019 |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | |
| Acenaphthene | 3330 | 2880 | | ug/kg wet | 86 | 51 - 124 | 6H22026 |
| Acenaphthylene | 3330 | 3430 | | ug/kg wet | 103 | 58 - 124 | 6H22026 |
| Anthracene | 3330 | 3190 | | ug/kg wet | 96 | 61 - 122 | 6H22026 |
| Benzo (a) anthracene | 3330 | 2940 | | ug/kg wet | 88 | 51 - 139 | 6H22026 |
| Benzo (b) fluoranthene | 3330 | 2610 | | ug/kg wet | 78 | 57 - 129 | 6H22026 |
| Benzo (k) fluoranthene | 3330 | 2860 | | ug/kg wet | 86 | 53 - 127 | 6H22026 |
| Benzo (g,h,i) perylene | 3330 | 3560 | | ug/kg wet | 107 | 34 - 123 | 6H22026 |
| Benzo (a) pyrene | 3330 | 2840 | | ug/kg wet | 85 | 65 - 109 | 6H22026 |
| 1-Methylnaphthalene | 3330 | 2700 | | ug/kg wet | 81 | 18 - 115 | 6H22026 |
| Chrysene | 3330 | 2960 | | ug/kg wet | 89 | 55 - 130 | 6H22026 |
| Dibenz (a,h) anthracene | 3330 | 3630 | | ug/kg wet | 109 | 48 - 125 | 6H22026 |
| Fluoranthene | 3330 | 2810 | | ug/kg wet | 84 | 58 - 129 | 6H22026 |
| Fluorene | 3330 | 3360 | | ug/kg wet | 101 | 61 - 128 | 6H22026 |
| Indeno (1,2,3-cd) pyrene | 3330 | 3740 | | ug/kg wet | 112 | 44 - 126 | 6H22026 |
| 2-Methylnaphthalene | 3330 | 2940 | | ug/kg wet | 88 | 20 - 125 | 6H22026 |
| Naphthalene | 3330 | 2690 | | ug/kg wet | 81 | 23 - 118 | 6H22026 |
| Phenanthrene | 3330 | 3140 | | ug/kg wet | 94 | 61 - 120 | 6H22026 |

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## PROJECT QUALITY CONTROL DATA
### LCS - Cont.

| Analyte | Known Val. | Analyzed Val | Q | Units | % Rec. | Target Range | Q.C. Batch |
|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | |
| Pyrene | 3330 | 3550 | | ug/kg wet | 107 | 45 - 141 | 6H22026 |
| *Surrogate: 2-Fluorobiphenyl* | 3330 | 3450 | | ug/kg wet | 104 | 24 - 121 | 6H22026 |
| *Surrogate: Nitrobenzene-d5* | 3330 | 2870 | | ug/kg wet | 86 | 19 - 111 | 6H22026 |
| *Surrogate: Terphenyl-d14* | 3330 | 3760 | | ug/kg wet | 113 | 44 - 171 | 6H22026 |

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Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## PROJECT QUALITY CONTROL DATA
### Matrix Spike

| Analyte | Orig. Val. | MS Val | Q | Units | Spike Conc | % Rec. | Target Range | Batch | Sample Spiked |
|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | |
| Benzene | <0.183 | 15.0 | | ug/kg dry | 50.0 | 30 | 18 - 126 | 6H21019 | OPH0363-01 |
| Benzene | <0.183 | 46.0 | | ug/kg dry | 50.0 | 92 | 18 - 126 | 6H21019 | OPH0354-01 |
| Ethylbenzene | <0.212 | 8.45 | | ug/kg dry | 50.0 | 17 | 12 - 120 | 6H21019 | OPH0363-01 |
| Ethylbenzene | <0.212 | 44.7 | | ug/kg dry | 50.0 | 89 | 12 - 120 | 6H21019 | OPH0354-01 |
| Naphthalene | <0.276 | 6.17 | | ug/kg dry | 50.0 | 12 | 10 - 125 | 6H21019 | OPH0363-01 |
| Naphthalene | <0.276 | 37.8 | | ug/kg dry | 50.0 | 76 | 10 - 125 | 6H21019 | OPH0354-01 |
| Toluene | <0.432 | 12.3 | | ug/kg dry | 50.0 | 25 | 10 - 130 | 6H21019 | OPH0363-01 |
| Toluene | 0.257 | 46.7 | | ug/kg dry | 50.0 | 93 | 10 - 130 | 6H21019 | OPH0354-01 |
| Xylenes, total | <0.260 | 24.4 | | ug/kg dry | 150 | 16 | 10 - 126 | 6H21019 | OPH0363-01 |
| Xylenes, total | <0.260 | 134 | | ug/kg dry | 150 | 89 | 10 - 126 | 6H21019 | OPH0354-01 |
| *Surrogate: 1,2-Dichloroethane-d4* | | 51.0 | | ug/kg dry | 50.0 | 102 | 73 - 137 | 6H21019 | OPH0354-01 |
| *Surrogate: 1,2-Dichloroethane-d4* | | 62.5 | | ug/kg dry | 50.0 | 125 | 73 - 137 | 6H21019 | OPH0363-01 |
| *Surrogate: 4-Bromofluorobenzene* | | 49.3 | | ug/kg dry | 50.0 | 99 | 59 - 118 | 6H21019 | OPH0354-01 |
| *Surrogate: 4-Bromofluorobenzene* | | 51.2 | | ug/kg dry | 50.0 | 102 | 59 - 118 | 6H21019 | OPH0363-01 |
| *Surrogate: Dibromofluoromethane* | | 51.4 | | ug/kg dry | 50.0 | 103 | 55 - 145 | 6H21019 | OPH0354-01 |
| *Surrogate: Dibromofluoromethane* | | 54.2 | | ug/kg dry | 50.0 | 108 | 55 - 145 | 6H21019 | OPH0363-01 |
| *Surrogate: Toluene-d8* | | 52.0 | | ug/kg dry | 50.0 | 104 | 80 - 117 | 6H21019 | OPH0363-01 |
| *Surrogate: Toluene-d8* | | 51.2 | | ug/kg dry | 50.0 | 102 | 80 - 117 | 6H21019 | OPH0354-01 |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | |
| Acenaphthene | <76.6 | 2170 | | ug/kg dry | 3450 | 63 | 40 - 125 | 6H22026 | OPH0362-11 |
| Acenaphthylene | <101 | 2440 | | ug/kg dry | 3450 | 71 | 44 - 125 | 6H22026 | OPH0362-11 |
| Anthracene | <55.1 | 2340 | | ug/kg dry | 3450 | 68 | 53 - 121 | 6H22026 | OPH0362-11 |
| Benzo (a) anthracene | 547 | 2400 | | ug/kg dry | 3450 | 54 | 46 - 135 | 6H22026 | OPH0362-11 |
| Benzo (b) fluoranthene | 283 | 2060 | | ug/kg dry | 3450 | 52 | 44 - 136 | 6H22026 | OPH0362-11 |
| Benzo (k) fluoranthene | 295 | 2050 | | ug/kg dry | 3450 | 51 | 43 - 131 | 6H22026 | OPH0362-11 |
| Benzo (g,h,i) perylene | <17.9 | 2810 | | ug/kg dry | 3450 | 81 | 34 - 123 | 6H22026 | OPH0362-11 |
| Benzo (a) pyrene | 238 | 2120 | | ug/kg dry | 3450 | 55 | 51 - 115 | 6H22026 | OPH0362-11 |
| 1-Methylnaphthalene | <86.8 | 2040 | | ug/kg dry | 3450 | 59 | 11 - 112 | 6H22026 | OPH0362-11 |
| Chrysene | 769 | 2440 | | ug/kg dry | 3450 | 48 | 48 - 126 | 6H22026 | OPH0362-11 |
| Dibenz (a,h) anthracene | <22.7 | 2740 | | ug/kg dry | 3450 | 79 | 38 - 119 | 6H22026 | OPH0362-11 |
| Fluoranthene | 1000 | 2540 | | ug/kg dry | 3450 | 45 | 33 - 138 | 6H22026 | OPH0362-11 |
| Fluorene | <67.7 | 2340 | | ug/kg dry | 3450 | 68 | 48 - 128 | 6H22026 | OPH0362-11 |
| Indeno (1,2,3-cd) pyrene | <22.4 | 2900 | | ug/kg dry | 3450 | 84 | 37 - 117 | 6H22026 | OPH0362-11 |
| 2-Methylnaphthalene | <73.7 | 2220 | | ug/kg dry | 3450 | 64 | 11 - 122 | 6H22026 | OPH0362-11 |
| Naphthalene | <69.4 | 2040 | | ug/kg dry | 3450 | 59 | 15 - 116 | 6H22026 | OPH0362-11 |
| Phenanthrene | 166 | 2380 | | ug/kg dry | 3450 | 64 | 52 - 123 | 6H22026 | OPH0362-11 |
| Pyrene | 1310 | 3150 | | ug/kg dry | 3450 | 53 | 31 - 155 | 6H22026 | OPH0362-11 |
| *Surrogate: 2-Fluorobiphenyl* | | 2630 | | ug/kg dry | 3450 | 76 | 24 - 121 | 6H22026 | OPH0362-11 |
| *Surrogate: Nitrobenzene-d5* | | 2120 | | ug/kg dry | 3450 | 61 | 19 - 111 | 6H22026 | OPH0362-11 |

**TestAmerica - Orlando, FL**
Shali Brown
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OPH0362
Project: LAUREL BAY
Project Number: EP 2362

Sampled: 08/14/06-08/16/06
Received: 08/18/06

## PROJECT QUALITY CONTROL DATA
### Matrix Spike - Cont.

| Analyte | Orig. Val. | MS Val | Q | Units | Spike Conc | % Rec. | Target Range | Batch | Sample Spiked |
|---|---|---|---|---|---|---|---|---|---|
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | |
| *Surrogate: Terphenyl-d14* | | 2960 | | ug/kg dry | 3450 | 86 | 44 - 171 | 6H22026 | OPH0362-11 |

## PROJECT QUALITY CONTROL DATA
### Matrix Spike Dup

| Analyte | Orig. Val. | Duplicate | Q | Units | Spike Conc | % Rec. | RPD | RPD Limit | Q.C. Batch | Sample Duplicated |
|---|---|---|---|---|---|---|---|---|---|---|
| **Volatile Organic Compounds by EPA Method 8260B** | | | | | | | | | | |
| Benzene | <0.183 | 35.4 | | ug/kg dry | 50.0 | 71 | 26 | 30 | 6H21019 | OPH0354-01 |
| Ethylbenzene | <0.212 | 33.7 | | ug/kg dry | 50.0 | 67 | 28 | 30 | 6H21019 | OPH0354-01 |
| Naphthalene | <0.276 | 29.5 | | ug/kg dry | 50.0 | 59 | 25 | 30 | 6H21019 | OPH0354-01 |
| Toluene | 0.279 | 36.0 | | ug/kg dry | 50.0 | 71 | 26 | 30 | 6H21019 | OPH0354-01 |
| Xylenes, total | <0.260 | 103 | | ug/kg dry | 150 | 69 | 26 | 30 | 6H21019 | OPH0354-01 |
| *Surrogate: 1,2-Dichloroethane-d4* | | 50.7 | | ug/kg dry | 50.0 | 101 | | | 6H21019 | OPH0354-01 |
| *Surrogate: 4-Bromofluorobenzene* | | 49.5 | | ug/kg dry | 50.0 | 99 | | | 6H21019 | OPH0354-01 |
| *Surrogate: Dibromofluoromethane* | | 50.8 | | ug/kg dry | 50.0 | 102 | | | 6H21019 | OPH0354-01 |
| *Surrogate: Toluene-d8* | | 50.8 | | ug/kg dry | 50.0 | 102 | | | 6H21019 | OPH0354-01 |
| **Polynuclear Aromatic Hydrocarbons by EPA Method 8270** | | | | | | | | | | |
| Acenaphthene | <76.6 | 2830 | | ug/kg dry | 3450 | 82 | 26 | 60 | 6H22026 | OPH0362-11 |
| Acenaphthylene | <101 | 3270 | | ug/kg dry | 3450 | 95 | 29 | 51 | 6H22026 | OPH0362-11 |
| Anthracene | <55.1 | 3100 | | ug/kg dry | 3450 | 90 | 28 | 60 | 6H22026 | OPH0362-11 |
| Benzo (a) anthracene | 547 | 3160 | | ug/kg dry | 3450 | 76 | 27 | 46 | 6H22026 | OPH0362-11 |
| Benzo (b) fluoranthene | 283 | 2690 | | ug/kg dry | 3450 | 70 | 27 | 60 | 6H22026 | OPH0362-11 |
| Benzo (k) fluoranthene | 295 | 2660 | | ug/kg dry | 3450 | 69 | 26 | 60 | 6H22026 | OPH0362-11 |
| Benzo (g,h,i) perylene | <17.9 | 3780 | | ug/kg dry | 3450 | 110 | 29 | 38 | 6H22026 | OPH0362-11 |
| Benzo (a) pyrene | 238 | 2740 | | ug/kg dry | 3450 | 73 | 26 | 48 | 6H22026 | OPH0362-11 |
| 1-Methylnaphthalene | <86.8 | 2580 | | ug/kg dry | 3450 | 75 | 23 | 60 | 6H22026 | OPH0362-11 |
| Chrysene | 769 | 3230 | | ug/kg dry | 3450 | 71 | 28 | 36 | 6H22026 | OPH0362-11 |
| Dibenz (a,h) anthracene | <22.7 | 3700 | | ug/kg dry | 3450 | 107 | 30 | 60 | 6H22026 | OPH0362-11 |
| Fluoranthene | 1000 | 3370 | | ug/kg dry | 3450 | 69 | 28 | 63 | 6H22026 | OPH0362-11 |
| Fluorene | <67.7 | 3260 | | ug/kg dry | 3450 | 94 | 33 | 49 | 6H22026 | OPH0362-11 |
| Indeno (1,2,3-cd) pyrene | <22.4 | 3840 | | ug/kg dry | 3450 | 111 | 28 | 60 | 6H22026 | OPH0362-11 |
| 2-Methylnaphthalene | <73.7 | 2810 | | ug/kg dry | 3450 | 81 | 23 | 71 | 6H22026 | OPH0362-11 |
| Naphthalene | <69.4 | 2570 | | ug/kg dry | 3450 | 74 | 23 | 81 | 6H22026 | OPH0362-11 |
| Phenanthrene | 166 | 3250 | | ug/kg dry | 3450 | 89 | 31 | 60 | 6H22026 | OPH0362-11 |
| Pyrene | 1310 | 4130 | | ug/kg dry | 3450 | 82 | 27 | 90 | 6H22026 | OPH0362-11 |
| *Surrogate: 2-Fluorobiphenyl* | | 3300 | | ug/kg dry | 3450 | 96 | | | 6H22026 | OPH0362-11 |
| *Surrogate: Nitrobenzene-d5* | | 2570 | | ug/kg dry | 3450 | 74 | | | 6H22026 | OPH0362-11 |
| *Surrogate: Terphenyl-d14* | | 3710 | | ug/kg dry | 3450 | 108 | | | 6H22026 | OPH0362-11 |

TestAmerica
ANALYTICAL TESTING CORPORATION
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

| | | | | | |
|---|---|---|---|---|---|
| Client: | EPG, INC. | Work Order: | OPH0362 | Sampled: | 08/14/06-08/16/06 |
| | PO BOX 1096 | Project: | LAUREL BAY | Received: | 08/18/06 |
| | MT PLEASANT, SC 29465 | Project Number: | EP 2362 | | |
| Attn: | JOHN MAHONEY | | | | |

## CERTIFICATION SUMMARY

**TestAmerica - Orlando, FL**

| Method | Matrix | Nelac | South Carolina |
|---|---|---|---|
| EPA 160.3 | Solid/Soil | | |
| EPA 8260B | Solid/Soil | X | X |
| EPA 8270C | Solid/Soil | X | X |

## DATA QUALIFIERS AND DEFINITIONS

| | |
|---|---|
| **I** | Analyte detected at a level less than the reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations in this range are estimated. |
| **J1** | Surrogate recovery limits have been exceeded. |
| **RL2** | Reporting limit raised due to high concentrations of hydrocarbons. |
| **U** | The compound was analyzed for but not detected |

## ADDITIONAL COMMENTS

When insufficient sample volume is received for Matrix Spike and Matrix Spike Duplicate, Laboratory Control Spike and Laboratory Control Spike Duplicate data is used for batch QC.

Results are reported on a wet weight basis unless otherwise noted.

**TestAmerica - Orlando, FL**
Shali Brown
Project Manager

# TestAmerica
ANALYTICAL TESTING CORPORATION

4310 East Anderson Road * Orlando, FL 32812 * 407-851-2560 * Fax 407-856-0886 * 800-851-

Client: EPG, INC. Project: OPH0362

Shipped By: Fed Ex Tracking Number: 858282354468

Cooler Received On: 08/18/06 09:20 And Opened On (Date/time): 8/18 1080

Received By: Jessica Batura Logged in by: Jessica Batura

Were custody seals on the outside of cooler? **YES** ____ **NO** √ If Yes # ____ Location ____

Were custody seals intact? **YES** ____ **NO** ____ **N/A** √ (no seals present)

Chain of Custody Complete? **YES** √ **NO** ____ If No Discrepancy ____

Cooler Temparture When Opened: 5.00 Degrees Celsius

Temparture Blank Included: **YES** ____ **NO** √

Packing Material: Bubblewrap √ NONE ____ Other: ____

Received on Ice: **YES** √ **NO** ____ Other: ____ Total # Of Containers: 20 # Vials 42

Any Bottles Broken? **YES** ____ **NO** √ If Yes Which One(s)? ____

Any Missing Samples? **YES** ____ **NO** √ If Yes Which One(s)? ____

pH Levels: H2SO4 <=2? ____ HNO3 <=2? ____ HCL <=2? ____ NaOH >=10? ____

# Of Containers Unpreserved between 6 and 8? 48, 14 methanol

Any Air Bubbles in VOA Vials? **YES** ____ **NO** √ **N/A** ____ (no VOA vials received)

Was there enough sample shipped in each container? **YES** √ **NO** ____

Correct Preservatives Used? **YES** √ **NO** ____ If No, please explain: ____

Project Manager: Shali Brown

Corrective Actions Taken 1468 cardinal @ side - 1 jar had no sample date or time.
1473 cardinal @ bottom - 1 jar had no sample time.

0710362 page 1 of 2

# TestAmerica
INCORPORATED

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

Client Name: EPG  Client #: 2411
Address:
City/State/Zip Code:
Project Manager: John Mahoney
Telephone Number:  Fax:
Sampler Name: (Print Name) Al Manucy
Sampler Signature:

Project Name: Laurel Bay
Project #: EP 2362
Site/Location ID:  State:
Report To:
Invoice To:
Quote #:  PO#:

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other
Preservation & # of Containers: $HNO_3$, HCl, NaOH, $H_2SO_4$, Methanol, None, Other (Specify)
Analyze For: BTEX + Naph - 8260; PAH - 8270

QC Deliverables: ___ None; X Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

| SAMPLE ID | Date Sampled | Time Sampled | G = Grab, C = Composite | Field Filtered | Matrix | Preservation & # of Containers | Analyze For: BTEX + Naph - 8260 | Analyze For: PAH - 8270 | REMARKS | |
|---|---|---|---|---|---|---|---|---|---|---|
| 441-01 Bottom | 8-14 | 1015 | | | | | X | X | | 01 |
| 441-02 Side | 8-14 | 1015 | | | | | | | | 02 |
| 143 LBB -01 Bottom | 8-14 | 1400 | | | | | | | | 03 |
| 143 LBB -02 Side | 8-14 | 1400 | | | | | | | | 04 |
| 143 LBB -03 Bottom | 8-14 | 1430 | | | | | | | | 05 |
| 143 LBB -04 Side | 8-14 | 1430 | | | | | | | | 06 |
| 270 Birch - 01 Bottom | 8-15 | 8:45 | | | | | | | | 07 |
| 270 Birch -02 Side | 8-15 | 8:50 | | | | | | | | 08 |
| 201 Balsam-01 Bottom | 8-15 | 1340 | | | | | | | | 09 |
| 201 Balsam-02 Side | 8-15 | 1345 | | | | | | | | 10 |

Special Instructions: Report in dry weight

| | | | | | |
|---|---|---|---|---|---|
| Relinquished By: A. Manucy | Date: 8/17 | Time: 17:15 | Received By: T Bradford | Date: 8/17/06 | Time: 17:15 |
| Relinquished By: T Bradford | Date: 8/17 | Time: 1830 | Received By: J Britton | Date: 8/18 | Time: 9:20 |
| Relinquished By: | Date: | Time: | Received By: | Date: | Time: |

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 5.0
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
8582 8235 4498
Method of Shipment: FedEx to TA - Orlando

DPHO 2412 page 2 of 2

TestAmerica INCORPORATED

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

Client Name: EPG  Client #: 2411
Address:
City/State/Zip Code:
Project Manager: J Mahoney
Telephone Number:  Fax:
Sampler Name: (Print Name) A. Mancuy
Sampler Signature:

Project Name: Laurel Bay
Project #: EP2362
Site/Location ID:  State:
Report To:
Invoice To:
Quote #:  PO#:

TAT: X Standard; __ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

| SAMPLE ID | Date Sampled | Time Sampled | G = Grab, C = Composite | Field Filtered | Matrix: SL - Sludge DW - Drinking Water; GW - Groundwater S - Soil/Solid; WW - Wastewater Specify Other | Preservation & # of Containers: $HNO_3$ | HCl | NaOH | $H_2SO_4$ | Methanol | None | Other ( Specify) | Analyze For: BTEX + Naph; PAH-8270 | QC Deliverables: None; X Level 2 (Batch QC); Level 3; Level 4; Other: | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1468 Cardinal 01 Bottom | 8-16 | 9:25 | | | | | | | | | | | 1 1 | | 11 |
| 1468 Cardinal 02 side | 8-16 | 9:25 | | | | | | | | | | | 1 1 | | 12 |
| 1472 Cardinal 01 Bottom | 8-16 | 1330 | | | | | | | | | | | 1 1 | | 13 |
| 1472 Cardinal 02 SIDE | 8-16 | 1400 | | | | | | | | | | | 1 1 | | 14 |

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 5.0
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

| | Date | Time | | Date | Time |
|---|---|---|---|---|---|
| Relinquished By: A. Mancuy | 8/17 | 1215 | Received By: J Bradley | 8/17 | 1215 |
| Relinquished By: J Bradley | 8/17 | 1730 | Received By: J Sullivan | 8/18 | 9:30 |
| Relinquished By: | Date: | Time: | Received By: | Date: | Time: |

**Appendix C**
**Laboratory Analytical Report - Groundwater**

CDM - AECOM
Multimedia Joint Venture

Pace Analytical®
www.pacelabs.com

**Pace Analytical Services, Inc.**
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

**Pace Analytical Services, Inc.**
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

## ANALYTICAL RESULTS

Project: LAUREL BAY 7/30/08
Pace Project No.: 9224584

**Sample: 1472 CARDINAL A** **Lab ID: 9224584010** Collected: 07/30/08 16:00 Received: 08/01/08 07:55 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH by SIM SPE** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3535 | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 4.0 | 20 | 08/05/08 00:00 | 08/13/08 18:17 | 193-39-5 | |
| 1-Methylnaphthalene | **1810** | ug/L | 200 | 100 | 08/05/08 00:00 | 08/13/08 18:38 | 90-12-0 | |
| 2-Methylnaphthalene | **2790** | ug/L | 200 | 100 | 08/05/08 00:00 | 08/13/08 18:38 | 91-57-6 | |
| Naphthalene | **821** | ug/L | 30.0 | 20 | 08/05/08 00:00 | 08/13/08 18:17 | 91-20-3 | D3 |
| Phenanthrene | **534** | ug/L | 4.0 | 20 | 08/05/08 00:00 | 08/13/08 18:17 | 85-01-8 | |
| Pyrene | **32.7** | ug/L | 2.0 | 20 | 08/05/08 00:00 | 08/13/08 18:17 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 73 | % | 50-150 | 20 | 08/05/08 00:00 | 08/13/08 18:17 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 62 | % | 50-150 | 20 | 08/05/08 00:00 | 08/13/08 18:17 | 321-60-8 | |
| Terphenyl-d14 (S) | 90 | % | 50-150 | 20 | 08/05/08 00:00 | 08/13/08 18:17 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | |
| Benzene | **10.4** | ug/L | 1.0 | 1 | | 08/06/08 18:26 | 71-43-2 | |
| Ethylbenzene | **114** | ug/L | 1.0 | 1 | | 08/06/08 18:26 | 100-41-4 | |
| Naphthalene | **1030** | ug/L | 10.0 | 10 | | 08/07/08 22:35 | 91-20-3 | |
| Toluene | **3.7** | ug/L | 1.0 | 1 | | 08/06/08 18:26 | 108-88-3 | |
| m&p-Xylene | **106** | ug/L | 2.0 | 1 | | 08/06/08 18:26 | 1330-20-7 | |
| o-Xylene | **98.9** | ug/L | 1.0 | 1 | | 08/06/08 18:26 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 103 | % | 87-109 | 1 | | 08/06/08 18:26 | 460-00-4 | |
| Dibromofluoromethane (S) | 94 | % | 85-115 | 1 | | 08/06/08 18:26 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 97 | % | 79-120 | 1 | | 08/06/08 18:26 | 17060-07-0 | |
| Toluene-d8 (S) | 103 | % | 70-120 | 1 | | 08/06/08 18:26 | 2037-26-5 | |

**Sample: 1468 CARDINAL A** **Lab ID: 9224584011** Collected: 07/30/08 16:50 Received: 08/01/08 07:55 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH by SIM SPE** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3535 | | | | | | | |
| Acenaphthene | ND | ug/L | 2.0 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 1.5 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 208-96-8 | |
| Anthracene | **0.058** | ug/L | 0.050 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 0.10 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 0.30 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 207-08-9 | |
| Chrysene | ND | ug/L | 0.10 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 0.30 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 206-44-0 | |
| Fluorene | ND | ug/L | 0.31 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 2.0 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 2.0 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 91-57-6 | |
| Naphthalene | ND | ug/L | 1.5 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 91-20-3 | |
| Phenanthrene | **0.65** | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 85-01-8 | |
| Pyrene | ND | ug/L | 0.10 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 129-00-0 | |

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**Pace Analytical Services, Inc.**
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

**Pace Analytical Services, Inc.**
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

## ANALYTICAL RESULTS

Project: LAUREL BAY 7/30/08
Pace Project No.: 9224584

**Sample: 1468 CARDINAL A** **Lab ID: 9224584011** Collected: 07/30/08 16:50 Received: 08/01/08 07:55 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH by SIM SPE** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3535 | | | | | | | |
| Nitrobenzene-d5 (S) | 52 | % | 50-150 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 51 | % | 50-150 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 321-60-8 | |
| Terphenyl-d14 (S) | 67 | % | 50-150 | 1 | 08/05/08 00:00 | 08/13/08 15:43 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 1 | | 08/07/08 22:59 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 1 | | 08/07/08 22:59 | 100-41-4 | |
| Naphthalene | **4.3** | ug/L | 1.0 | 1 | | 08/07/08 22:59 | 91-20-3 | C8 |
| Toluene | ND | ug/L | 1.0 | 1 | | 08/07/08 22:59 | 108-88-3 | |
| m&p-Xylene | ND | ug/L | 2.0 | 1 | | 08/07/08 22:59 | 1330-20-7 | |
| o-Xylene | ND | ug/L | 1.0 | 1 | | 08/07/08 22:59 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 98 | % | 87-109 | 1 | | 08/07/08 22:59 | 460-00-4 | |
| Dibromofluoromethane (S) | 97 | % | 85-115 | 1 | | 08/07/08 22:59 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 100 | % | 79-120 | 1 | | 08/07/08 22:59 | 17060-07-0 | |
| Toluene-d8 (S) | 100 | % | 70-120 | 1 | | 08/07/08 22:59 | 2037-26-5 | |

**Sample: 1177 BOBWHITE D** **Lab ID: 9224584012** Collected: 07/30/08 15:00 Received: 08/01/08 07:55 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH by SIM SPE** | Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3535 | | | | | | | |
| Acenaphthene | ND | ug/L | 2.0 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 1.5 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 208-96-8 | |
| Anthracene | ND | ug/L | 0.050 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 0.10 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 0.30 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 207-08-9 | |
| Chrysene | ND | ug/L | 0.10 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 0.30 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 206-44-0 | |
| Fluorene | ND | ug/L | 0.31 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 2.0 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 2.0 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 91-57-6 | |
| Naphthalene | ND | ug/L | 1.5 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 91-20-3 | |
| Phenanthrene | ND | ug/L | 0.20 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 85-01-8 | |
| Pyrene | ND | ug/L | 0.10 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 52 | % | 50-150 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 53 | % | 50-150 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 321-60-8 | |
| Terphenyl-d14 (S) | 75 | % | 50-150 | 1 | 08/05/08 00:00 | 08/13/08 16:05 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 1 | | 08/07/08 23:22 | 71-43-2 | |

**Appendix D**
**Laboratory Analytical Report - Vapor**

CDM - AECOM
Multimedia Joint Venture

# ALS ENVIRONMENTAL

RESULTS OF ANALYSIS



**Client:** **AECOM** ALS Project ID: P1404131
**Client Sample ID:** **BEALB1468SG01GS20141008** ALS Sample ID: P1404131-006
**Client Project ID:** **JM30- Laurel Bay Military Housing Area, MCAS Beauf / 60272162.FI.WS**

Test Code: EPA TO-15 Date Collected: 10/8/14
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 10/9/14
Analyst: Simon Cao Date Analyzed: 10/11/14
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: SC02015

Initial Pressure (psig): -1.43 Final Pressure (psig): 3.67

Canister Dilution Factor: 1.38

| CAS # | Compound | Result µg/m³ | LOQ µg/m³ | LOD µg/m³ | MDL µg/m³ | Data Qualifier |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 0.61 | 0.69 | 0.61 | 0.22 | **U** |
| 108-88-3 | Toluene | **0.28** | 0.69 | 0.58 | 0.23 | **J** |
| 100-41-4 | Ethylbenzene | 0.59 | 0.69 | 0.59 | 0.22 | **U** |
| 179601-23-1 | m,p-Xylenes | 1.2 | 1.4 | 1.2 | 0.41 | **U** |
| 95-47-6 | o-Xylene | 0.57 | 0.69 | 0.57 | 0.21 | **U** |
| 91-20-3 | Naphthalene | **0.68** | 0.69 | 0.57 | 0.25 | **J** |

U = Undetected at the limit of detection: The associated data value is the limit of detection, adjusted by any dilution factor used in the analysis.
LOQ = Limit of Quantitation - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
J = The result is an estimated concentration that is less than the LOQ but greater than or equal to the MDL.

**Appendix E**
**Regulatory Correspondence**

CDM - AECOM
Multimedia Joint Venture

D H E C

PROMOTE PROTECT PROSPER



2 November 2007

Beaufort Military Complex Family Housing
ATTN: Kyle Broadfoot
1510 Laurel Bay Blvd.
Beaufort, SC 29906

Re: MCAS – Laurel Bay Housing – 1468 Cardinal
**Site ID # 03744**
UST Closure Reports received 15 August 2007
Beaufort County

Dear Mr. Broadfoot:

The purpose of this letter is to verify a release of fuel oil at the referenced residence. According to information received by the Department, the source of the release is from past onsite use of fuel oil USTs. To date, initial activities by the facility have included tank removal and soil sampling. Based on the information contained in the closure report, a potential violation of the South Carolina Pollution Control Act has occurred in that there has been an unauthorized release of petroleum to the environment.

Additional assessment activities are required for this site. Specifically the Department requests that a groundwater sampling proposal be generated for this site.

Please submit a groundwater sampling proposal to conduct the necessary assessment and/or remedial measures at this site no later than 29 February 2007. Should you have any questions, please contact me at 803-898-3553 (office phone), 803-898-2893 (fax) or bishopma@dhec.sc.gov.

Sincerely,

Michael Bishop, Hydrogeologist
Groundwater Quality Section
Bureau of Water

cc: Region 8 District EQC
United States Marine Corps Air Station, Commanding Officer, Attention: S-4 NREAO (William Drawdy), P.O. Box 55001, Beaufort, SC 29904-5001
Technical File

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

*Promoting and protecting the health of the public and the environment.*

8 December 2008

Commanding Officer
ATTN: S-4 NREAO (Craig Ehde)
MCAS
PO Box 55001
Beaufort, SC 29904-5001

Re: MCAS – Laurel Bay Housing – 1468 Cardinal
**Site ID # 03744**
Groundwater Sampling Results received 6 November 2008
Beaufort County

Dear Mr. Ehde:

Per the Department's request, a groundwater sample was collected from the referenced site. The groundwater results were reported as non-detect. Based on the information and analytical data submitted, the Department recognizes that MCAS has adequately addressed the known environmental contamination identified on the property to date in accordance with the approved scope of work. Consequently, no further investigation is required at this time. Please note, this statement pertains only to the portion of the site addressed in the referenced report and does not apply to other areas of the site and/or any other potential regulatory violations. Further, the Department retains the right to request further investigation if deemed necessary.

Should you have any questions, please contact me at 803-896-4179 (office phone), 803-896-6245 (fax) or cookejt@dhec.sc.gov.

Sincerely,
AST Petroleum Restoration
& Site Environmental Investigations Section
Land Revitalization Division
Bureau of Land and Waste Management
SC Dept. of Health & Environmental Control

Jan T. Cooke, Hydrogeologist

B. Thomas Knight, Manager

cc: Region 8 District EQC
Tri-Command Communities; Attn: Mr. Robert Bible; 600 Laurel Bay Road Beaufort, SC 29906
Technical File

D H E C
PROMOTE PROTECT PROSPER

W. Marshall Taylor Jr., Acting Director
*Promoting and protecting the health of the public and the environment*

Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control

March 10, 2015

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

RE: Approval
Draft Final Technical Memorandum-Soil Gas Sampling Results
October 2014
Laurel Bay Military Housing Area

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received the above referenced soil gas sampling results for multiple former heating oil tank sites on February 2, 2015. During tank removal, contaminated soil had been observed at the former tank sites selected for this study. The purpose of this study was to evaluate whether the constituents observed in soil have potential for exposure and risk to residents through impacted vapor intrusion pathways. Sampling was performed at fourteen (14) former heating oil tank sites with a range of VOCs present in the soil at the time of tank removal. 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 soil gas sampling results. The Department has generated no comments on this report. Please note that the Department's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, the Department retains the right to request further investigation if deemed necessary. If you have any questions, please contact me at petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

Laurel Petrus
Department of Defense Corrective Action Section

Cc: Russell Berry, EQC Region 8
Shawn Dolan, Resolution Consultants